

# RJ activity

As the 50-seat regional jet market shows signs of maturity, activity is certainly spreading to the 70-plus seat sector. *AF&NM* takes a look at the evolving regional jet market and discusses the latest aircraft developments.



The regional jet (RJ) has come to the rescue of many major airlines over the years and as certain scope clauses have been modified in the US, carriers have been able to once again develop their hub and spoke system, using larger RJs to replace older, expensive aircraft. Not all airlines have been so lucky, however, with their scope clause restrictions and with many major carriers experiencing financial uncertainties, purchasing new aircraft has not been a major priority. On the whole though, activity in the regional market is looking promising with a pronounced shift towards the more recently developed, larger RJ markets.

## 50-seat market

The 50-seat market is definitely showing the first signs of maturity, as the bulk of Embraer's ERJ 135/140/145 orders, according to Orlando Neto, VP Market Intelligence, Embraer, is behind them. "While there are still opportunities for the 50-seat RJ, these are becoming less," he says. The 50-seat ERJ 145 entered service in 1997 and competes directly with Bombardier's CRJ-200. A shorter 37-seat version, the

ERJ 135 and a 44-seat ERJ 140 have also been introduced. "The -135 is now compliant to operate out of London City Airport. That is something no other RJ manufacturer can offer and is keeping some warmth in the market place," he says. Neto also points out that the 145XR version, with a 2,000nm range capability, is showing to be a product very resilient to market needs in the US, opening long, thin routes. Embraer's operation for the smaller RJ in China is also offering new frontiers. "Product differentiation and current customer satisfaction will be key in establishing new orders," he says. According to the Teal Group, the economics favour the ERJ 145 and AMR Eagle's switch in favour of the 145 says good things about the smaller variants. Deliveries of the 135 and 140 dried up to just one plane in 2004. Current price lists for the smaller ERJs are: ERJ 135: \$16m; ERJ 140 \$18.5; ERJ 145: \$21m; ERJ 145XR: \$22.5m.

Bombardier has also reduced the delivery rate of its smaller CRJ 200. The original version was the Series 100, and a total of 226 were built. The standard CRJ 200 version is also available in

extended range (ER) and long range (LR). There is also a 440 version which is essentially a CRJ 200 with some seats removed (leaving 44) for scope clause reasons. Northwest has ordered 75 of these. "We clearly see the market shifting to the larger regional jets, in our case the CRJ 700, CRJ 705 and CRJ 900 models. We are also seeing increased demand for our large turboprop the Q400," says Barry MacKinnon, vice-president, marketing and airline analysis, Bombardier Aerospace. There are still a number of on-going campaigns, however, for the CRJ 200, especially in the US, which remains by far its biggest market. Recently, Northwest Airlines ordered 15 more CRJ 200 models to be operated by Airlink partner Mesaba Airlines. There are also some small volume orders coming from the rest of the world and Japan Airlines has recently confirmed an order for the CRJ 200.

Speaking of the 50-seat market, Karen Medweth, IBA Group, says the 50-seat RJs are still selling but more slowly than they have been. "It is a saturated market at this point, limited partially by scope clauses. In Europe, there is

certainly a place for 50-seats, but the structure of the business centres and the density of the market means that 50-seats do not work on as many routes. The 50-seat programmes are not in their down swing, but they are certainly nearing their peak," she says.

With customers' expectations now raised, Medweth feels that passengers now want something better from the 50-seat RJ. "The question is how do Bombardier and Embraer plan on developing their 50-seat products without alienating the current ERJ 145 and CRJ 200?" It seems that both manufacturers, however, are in no hurry to shrink any of their larger RJs so as to form a 50-seat product which would have more commonality with their larger variants. "For the time being, we are very happy with the product that we have, says Neto. "In the longer term, however, in a new decade, I don't see why we can't develop a new product. Whether it will come from the Embraer 170 or from scratch, it's still too early to be determined. As long as the market evolves, we will be focussing on giving our customers the answers they need to maintain and/or increase their profitability."

Bombardier has no plans to renew its CRJ 200 product either. "It is still quite young and peak deliveries occurred in the 2000/2001 timeframe. Our experience is that the demand for aircraft tends to shift to the next size level to accommodate traffic growth and the need for lower seat mile costs in a lower yield environment," says MacKinnon.

As far as any other competition, Fairchild Dornier's smaller 328Jet was bought by AvCraft Aviation in April 2003 for around 100m euros. Owing to problems with liquidity, an insolvency proceeding was instigated by AvCraft on March 10, 2005. Currently, there is a confirmed order book of four aircraft plus 21 options. Hainan Airlines and other customers have reiterated their interest in the RJ. In addition, there have been new expressions of interest, including one for a special variant of the 328 from a Northern European government aircraft. "At just 14 aircraft, our production is at full capacity for one year," says Wolfgang Walter, managing director, AvCraft Aerospace. "If just part of the options were exercised, we will have already reached our present capacity limit." According to recent market analysis, the market potential of the 328JET is high. "Some 1,360 turboprops in the sector are

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—Barry MacKinnon, vice-president, marketing and airline analysis, Bombardier Aerospace

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currently in operation worldwide. They will gradually exit the market to be replaced by modern jet versions," he says.

### *The 70-100 seat market*

The 70-seat Embraer 170, and its stretched version, the 175 (78 seats) are, according to Neto, a big attraction to customers and the natural growth product from the 50-seat market. North America and Western Europe will remain the major growth markets for these larger jets and Neto is confident that further relaxation of scope clauses in the US will bring additional opportunities. The US Airways order of 85 Embraer 170s was a great example of such relaxation but the extent to which this will be continued among other operators remains to be seen. Neto is confident: "Things have evolved quicker than we anticipated when we launched the programme and we are at a turning point. Some other US carriers are doing the same and I anticipate some very good news in terms of getting back on track and taking out scope clauses for the 170 product," he says.

Bombardier has two RJs in the 70-100 seat market, the 70-seat CRJ 700, a direct competitor to the Embraer 170 and the 86-90 seat CRJ 900 which also competes with the Embraer 170 when the 170 is configured to a larger 86-seat layout. The CRJ 900 seats more passengers than the Embraer 175 but not as many as the Embraer 190. Bombardier, likewise, is very pleased with the success of its 70-78-seat CRJ 700. Deliveries began in January 2001

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and the RJ has total firm orders are 276 which, according to MacKinnon, is well ahead of the Embraer 170, although the aircraft has had a two-year lead over the competition. "The CRJ700 has a substantial economic advantage, its DOC per trip is 10 per cent less than the Embraer 170," he says. Other attractions being commonality benefits with the CRJ 200 and 97 per cent parts commonality between the CRJ 700 and the CRJ 900. In September 2004, an Air Canada order launched the 705 version. This uses the CRJ 900 fuselage for better passenger comfort. The baseline 705 seats 75 in a spacious two class configuration. There are currently 15 orders for the 705, the first of which is scheduled to be delivered to Air Canada's wholly-owned affiliate Air Canada Jazz in May 2005. MacKinnon says that it is often misunderstood that while the Embraer 170 does have a larger cabin, people miss the fact that Bombardier has significantly enhanced the CRJ 700 and CRJ 900 interior compared with the CRJ 200, including an additional inch of headroom and an additional inch of cabin width. "With a much more flexible and improved interior, we believe that the cabin is competitive with that of the Embraer product. It comes down to the schedule and economics and we have a distinct advantage with lower fuel burn, maintenance costs and airport charges," he says. The CRJ 700 has received 30 orders in the US so far this year. "Go Jet ordered 10 CRJ 700s. It is a unit of

Trans States Holding, one of the largest operators of the ERJ 145, so that was a big win for us. Sky West Airlines ordered 20 more CRJ 700s under the United Express banner for United Airlines, so we see additional prospects in the North American market," he says.

MacKinnon agrees that the relaxation of scope clauses will facilitate the placement of the 70-seat product. "The loosening of scope clauses is giving restructuring airlines the flexibility they need to properly address the market and right-size back to profitability. Both the Go Jet order and the Sky West order would not have been possible a couple of years ago. The stretched CRJ 900 received launch orders in July 2000 with Tyrolean Airways, signing a LOI for 12 which were not booked as firm orders. The more liberal scope clause of America West, operated by Mesa, has resulted in CRJ 900 orders for this operator totalling 45, of which 29 had been delivered as of March 31, 2005.

### *100 seats and over*

The 100-seat Embraer 190 so far has received 155 firm orders from Jetblue (100); Air Canada (45) and Copa (10). The 108-seat Embraer 195 has 15 orders for SWISS, the aircraft is due to receive certification in 2006. The largest of all Embraer offers and with no serious competition, the Embraer 190/195 has every chance to prove the necessity of a product in this size category. If it takes off, for commonality reasons, the

Embraer 170 is likely to follow suit. Jetblue has actually opted for the advanced range (AR) version, converting its 100 orders plus 100 options from LR into AR. Medweth has no doubt that the 190 will be a success for Jetblue, but is doubtful that Southwest will follow. "Southwest wants to stay with one aircraft type, but maybe they will perform an alliance with a regional low-cost carrier which will operate 190s which they could feed in. That is one place where I see the potential for the 170/190 product to grow in Europe and the US. It could be the development of a whole new class of airline which is a true low-cost regional carrier. The 170/190 have very competitive economics and might be able to work that way."

Neto certainly sees the larger Embraer jets being at home with a low-cost carrier. "If you think about Jetblue, the break even load factor of the 190 is 65 per cent. This is better than the break-even on their A320s which is 75 per cent, so in that respect, it's a product in which the low-cost carrier can invest and address mid-sized markets." It would seem that David Almo, fleet planning, Jetblue agrees: "The Embraer 190 has the same seat pitch, a wider seat width and the same cabin feel as the A320, but in a two-by-two seat layout. The flexibility to enter smaller markets and markets which haven't been touched with low fares, is huge. The Embraer 190 was not the only aircraft type the low-fare carrier looked at: "We looked at the A318, A319, and he Bombardier 700/900 but those are more RJs in terms of their cabin feel and the A318 just doesn't bring the economics. The 190 gives us 30 more seats than the 170 and the cost of those extra seats is minimal, making the economics tremendously better than the 170. As a low-fare carrier, you have to have enough seats to stimulate business," he says. Jetblue's first Embraer 190 arrives in August or September this year but will not be flown in revenue service until October/November. The carrier will take seven this year and then 18 per year after that.

While Almo feels that Jetblue will not always be the only operator of the 190

in the US, it will certainly have the first launch advantage. "Some other carriers are looking at it. Some have issues with aircraft types and some have issues with balance sheets and where to deploy them. We have already established bases in the largest cities on the east coast and there is not a whole lot of ground space left for others to follow," he says.

With Embraer racing forward with its larger family of jets, the pressure has mounted for Bombardier to produce something bigger than the CRJ 900 series and in March this year, the Bombardier board approved plans to market and develop the company's proposed new C-Series family of jets, although a definite decision on where most of the final assembly work would take place is still some time off. The new C-Series will seat either a 110 or 130 passengers, available in shorthaul or longhaul versions. According to Bombardier, customers have shown "strong interest" in the aircraft. The new jet project is expected to cost \$2b to develop with governments contributing around one-third of the amount. Bombardier has forecast the first flight of its new aircraft in 2008, with the first delivery expected in 2010. MacKinnon says that while the shorter 1,800nm range will suit European markets, the 3,000nm plus longer-range version will be ideal for the US market, where there is a lot of demand for transcontinental capability, giving more range than the 190, which is a clear advantage," he says. While competing against the 190/195, it will also replace older aircraft such as the DC-9-30 and the older Boeing 737-200s. While competing at the smaller end of Airbus and Boeing's range, notably the A318 and the Boeing 737-600, those products have not, to-date, sold well. "We are moving to an aircraft that is uncompromised in terms of its economics in this size category, it will also have a very appealing passenger cabin," he says.

While Embraer admits it has a sweet spot with the Embraer 190, Neto confirms that Embraer will always welcome competition. "The C-series will fall more on the Airbus/Boeing side of the equation than ours," he says. "For sure, we will have competition to a



certain extent the same way as we have some frictions with Boeing and Airbus. This being said, I think Bombardier has a fundable challenge introducing a differentiation in terms of value for the customers in the market place," he says. For IBA's Medweth, the C-Series may be too late: "It will quite possibly miss the market and it is competing with the Boeing and Airbus in a way that Embraer is not." Medweth agrees, however, that Bombardier had to do something "It cannot continue to introduce aircraft into a market that is already saturated. The CRJ 900 cannot be stretched any more and it is not selling, except in conjunction with other products," she says.

There is no doubt that the future holds interesting times in terms of how the larger RJ market will develop.

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*Embraer expects to deliver 145 aircraft in 2005: 36 per cent ERJs; 50 per cent 170/190 family; and 14 per cent corporate jets.*

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Which products will be most appealing to customers' demands and who will scoop the largest market share remains in the balance. Both RJ manufacturers, however, are hugely ambitious. The 50-seat market seems likely to be a 50/50 split between the two. Neto has other ideas for the 70-seat market, however. "We hope to have a very predominant position in terms of the Embraer 170/175 and an important position on the 190/195. Embraer expects to deliver 145 aircraft in 2005: 36 per cent ERJs; 50 per cent 170/190 family; and 14 per cent corporate jets. In 2006, the same amount of aircraft are expected to be delivered although the split is estimated as 15 per cent ERJs; 73 per cent 170/190 family and 12 per cent corporate jets. Bombardier will no doubt pursue a market share just as ambitious and, according to MacKinnon, has the added advantage of the Q400 which has experienced much recent success. "In 2004, Bombardier captured a 67 per cent share of the world-wide 20-90 seat regional aircraft market overall. In the regional jet segment, which accounted for sales of 243 units, Bombardier gained 157 orders for a 65 per cent share", he says. While the industry awaits to confirm the success of the 190 and whether Bombardier will indeed go ahead with its C-Series aircraft, the regional market is certainly one sector which is not short of activity.

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