WORLD AIRLINERS WIDEBODY CONVERSIONS



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n less straitened times, the delivery of Boeing's 50th 747-400 freighter conversion in July would have been cause for celebration. But the arrival of the aircraft at Evergreen International airport in July must have been a bittersweet moment for the US airframer, as it was also the last in its current orderbook. Rival Bedek, part of Israel Aircraft Industries, is also coming to the end of its backlog. The reasons for this are not hard to see: a depressed global economy and a stagnant or slightly declining air cargo market, which has particularly hit the Asia to USA and Europe sectors on which 747 freighters are largely deployed.

Boeing has also fallen victim to its own success, in that the rollout of its new 747-8 and 777 freighters into a stagnant economic environment has led to overcapacity. This has not been helped by an increase in long-haul belly capacity for cargo, as passenger fleets — particularly in emerging economies — continue to expand.

So is the 747-400 conversion, launched with such fanfare in 2004, coming to a premature end? Not surprisingly, neither Boeing or Bedek think so, but both seem resigned to a temporary hiatus. "When we look at the market in the near term we see overcapacity in large freighters, which will probably last for one-and-a-half to two years," says Dan da

Silva, Boeing vice-president freighter conversions. "So 2013 will be a difficult year beyond demand already sold."

Jack Gaber, Bedek corporate deputy vice-president and general manager for marketing and business development, compares the current situation with that in 2008-2009. "Then, there was complete silence for a year and a half, but it was followed by a very strong comeback." But Gaber's reasons for optimism would not cheer Boeing. He says major carriers and leasing operators are not happy with the 747-8, finding it hard to fill and expensive to buy. "For the price of a 747-8, we can give you five 747-400 conversions," he points out.

EFFICIENT AIRCRAFT

As it happens, Cathay Pacific, launch customer for the 747-400 conversion, is busy making the opposite choice — selling or leasing its conversions to focus on its new 747-8s. However, da Silva insists this should not be seen as lack of confidence in the conversion.

He says the large line-haul operators will naturally tend towards the newest and more efficient aircraft, but cites the example of aircraft such as the DC-8, which were in demand as freighters among secondary carriers and in emerging markets, long after they were phased out by more mainstream operators.

Many secondary carriers have folded in the past few years, however, and the big question is whether new ones will take their place once the downturn ends. On the other hand, Boeing's latest *World Air Cargo Forecast* for 248 converted freighters of above 80t in the next 20 years only implies about 12 conversions a year in this category. Boeing's share of that might be six to seven aircraft, a fairly modest ambition.

While it waits for 747 demand to recover, Bedek and Boeing continue to work on plans for a 777 conversion, with both companies expecting feedstock to be at the right price in 2015 or 2016. In fact, Boeing floated plans for a 777-200ER conversion as long ago as 2009, and da Silva says it has been talking to a growing group of customers about its technical characteristics. Bedek also seems to be edging towards



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a decision. "We continue to look at it, and it seems we will do it, but feedstock will not be the right price till 2016-2018," says Gaber.

Airbus, however, has launched a product in the past year - subsidiary EADS-EFW announced a A330 conversion programme on 15 February. Both -200 and -300 conversions are being offered, but the -300 is expected to gain the early demand. It would offer a payload of 60-61t, with a range of 3,600nm (6,660km), while the -200 would offer 59t over 4,000nm. This compares with 65t over 4,000nm or 70t over 3,200nm for the factorybuilt A330-200F. The -300s will only achieve the above performance if they are later than 2000 vintage, as earlier models have a lower maximum take-off weight that would reduce range to 2,300nm. John Howey, director of sales - aircraft conversions for EADS-EFW, insists this is not a problem, however.

"Some customers do not need the range, and others have younger aircraft in their own fleet that they would convert," he says — a possible reference to Qatar Airways, which showed strong pre-launch enthusiasm for the conversion. Besides, Howey adds, by the time the programme gets started, some of the later -300s will be getting old enough.

What might be an issue for express customers is finding large enough block sizes of feedstock, however. The -300, with its greater volume, is expected to appeal more to such customers, but they will want to order reasonable numbers of them at a time. It must have been a disappointment to EADS-EFW that FedEx recently placed a big order for new 767-300s, suggesting it might standardise on this type as a replacement for its MD-10s, A300s and A310s. Howey, however, remains optimistic that as a strong customer for Airbus conversions in the past, FedEx will at some point place further orders with EADS-EFW.

ATTITUDE CORRECTION

A further issue for the A330 conversion will be its cost, which will inevitably be higher than the industry is used to because the nosedown attitude of the A330 – it dips slightly towards the front – will need to be corrected, as it has to be on the production freighter, and as it is a more modern aircraft, more engineering design has to go into the conversion. EADS-EFW has not officially confirmed the price, but it is expected to be around \$16 million for the A330-300, which compares with \$10 million for the A300-600.

That and the high price of A330 feedstock creates a window of opportunity for its rival, the 767-300 conversion, but demand still remains slack. Bedek has done a few 767-200s for DHL this year, but its 767-300 programme is quiet. Boeing has had no orders for its -300s since completing seven for launch customer All Nippon Airways in November 2010.

Both companies expect more demand in the coming year or so, however, as the 787 continues to roll out and feedstock prices ease. Gaber is particularly hopeful of express orders, with FedEx, UPS and DHL all now flying the type, while da Silva sees potential in the carriers still flying DC-10s.

One last wildcard is a new proposal from US company LCF Conversions to instal lifts in A340-300 aircraft to enable their ordinary lower hold cargo doors to be used to load freight on to the main deck. This, it says, would enable the aircraft to be used as a 65t freighter, with a range of 5,400nm, albeit with cargo limited to a height of 1.65m (64in). With no need to make structural changes to the aircraft, the conversion would cost \$6.5 million, with feedstock now available at \$9-14 million.

Disadvantages include the higher fuel burn of the A340, and longer loading times compared with a freighter with a maindeck cargo door. But the concept could provide a simple way to perform freighter conversions on next-generation widebodies without having to tackle the greater complexities of their engineering when compared with older airframes. LCF is already talking about a 777 conversion of the same type, but the proof will be whether it attracts any customers.



Temporary dip or long-term trend? Weakness in the cargo market is analysed at flightglobal.com/cargomkt