Feast and famine

Not even falling oil prices have tempted anyone into a Boeing 747 conversion, as spare production freighters remain in abundance. However, the narrowbody market is becoming ever more competitive, finds Ian Putzger

Depending on where you look in the freighter conversion arena, it is either frantic abundance or bleak, hopeless starvation. The contrast between the larger end of the market and the narrowbody sector could not be starker. While conversion outfits cannot turn out small freighters fast enough, the activity around large widebody types resembles a cemetery. Nobody has turned a Boeing 747 into a freighter for some time, and some executives predict that the programme will never come back to life.

“The 747 conversion programme is dead,” comments Bob Convey, vice president of sales and marketing at Aeronautical Engineers Inc (AEI).

With large numbers of 747-400BCFs and 747-400 production freighters parked, there is no point in acquiring a passenger model and turning it into all-cargo configuration. ACMI provider Air Atlanta Icelandic is looking to expand its 747 fleet, but not through a conversion. “I don’t see any more conversions at all of 747s. I don’t see the case for them, especially at the cost of conversion,” says...
Baldvin Mar Hermannsson, vice president of sales and marketing.

777 freighters have been snapped up with alacrity, but a converted version is still a long way off. Dan da Silva, head of modifications and conversions at Boeing, notes that the existing versions still have high residual values, adding that passenger operators are not showing any hurry to replace their older 777s.

“I don’t see a 777 conversion coming around any time soon,” remarks Convey.

Meanwhile, conversion specialists that reconfigure Boeing 737s have been stretched to meet demand. In the past two years, Pemco turned around some 40 aircraft per year. AEI was homing in on its 50th 737-400 conversion in February, having processed 27 in 2014.

Convey reckons that AEI can crank out close to 30 737-400s this year, adding that the only challenge will likely be the availability of feedstock. Kevin Casey, president of Pemco, says that 2015 looks like it is going to be another big year, but thinks it may be slightly off the pace of the previous two. The reason for this is availability – not in the sense of 737-400 aircraft coming out of passenger service, but of planes that meet age restrictions in major markets. Most of the strong growth markets with age limitations are drawing the line at 20, or even 15 years. This takes a number of aircraft out of the equation, albeit not substantially, he says.

The success of the 737-400 has hurt another candidate that started out with high promise. When AEI launched its conversion programme for the MD-80 freighter, Convey was bullish on the aircraft as, like the 737-400, it could accommodate 12 pallets. However, residual values under $1 million made the MD-80 a strong potential challenger to the 737, with its enticing price tag coming in around half the cost of a 737-400 freighter. However, residual values of 737-400s have come down considerably recently and narrowed the gap, which has highlighted the weaknesses of the MD-80, namely its 12% higher fuel burn and that none of the integrators are using it.

“There was great interest initially, when the 737-400 was going for $5 or $6 million. But that dried up when the price went down to $2 to $3 million,” says Convey.

AEI has converted six MD-80s so far, and three are on the books for this year. According to Convey, the numbers were nowhere near what the conversion outfit had originally projected, though this was countered by stronger than anticipated demand for 737-400 conversions.

AEI’s conversion certificate covers four variants of the MD-80 family, this would offer one additional pallet position. This has now receded further into the future. “Given the slow start with the MD-80, this is not the right time. Maybe later, when Delta’s MD-90s are coming out,” comments Convey.

With 13 pallet positions, the MD-90 would be a challenger in some markets to the next great step in the narrowbody conversion segment: the 737-800. At this point, the type is still highly prized by passenger airlines and carries a residual value north of the $10 million mark, but moves are already well under way to establish conversion programmes for 737NGs. AEI was the first out of the gate last April. This was followed by Boeing, which got the green light to proceed but has so far not signed up a customer to formally launch its programme.

“We believe the time for the 737-800 is approaching,” says da Silva. At this point there is virtually no feedstock and residual values are too high, but by 2017/2018, when the first NG conversion programmes are due to kick in, the situation should have changed. Moreover, there is the matter of age limitations in markets like China, he remarks.

“That’s why we are in the design phase,” says Casey. “It’s not that the classic is not adequate. It is just right for many customers, especially with the lower fuel price at the moment, and the capital cost is significantly lower than for the 737-800.”

Convey is bullish on the 737-800 freighter, expecting broad adoption by both integrators and freight haulers in emerging markets. “I think this will be the standard global narrowbody freighter,” he says.
AEI is passing on the 737-700 and going straight for the 737-800. Pemco, on the other hand, will start with the former before bringing the -800 into its production. Casey calls the -700 “a -300 size plane with better characteristics”. Moreover, its capital cost is already getting near the conversion range, whereas the -800’s residual value is still too high.

“Everybody would like to have two more pallet positions, but you can buy a -700 for less than half the price of an -800,” he remarks. Furthermore, he adds that lease rates on -800s continue to go up month after month, whereas those of the -700 have been moving in the opposite direction.

Ultimately, Casey’s sights are set on the -800, but until its acquisition price is in range for conversion the -700 offers a more convincing case. “I believe the -800 is going to have compelling economics compared to all other [narrowbody] freighters out there, once its residual value comes in range, which is a single-digit million dollar price. Today it is still far from that. The -700 is a gap fill, and a very nice one,” he says.

According to Convey, converting a 737-800 will cost about $3.5 million. Casey sees the -700 slightly below that mark and the -800 slightly higher.

Traditionally most narrowbody types have attracted one or two conversion specialists. It is a reflection of the promise of the 737-800 that no less than four outfits have signalled plans for conversion programmes of this type: AEI, Pemco, Boeing and Bedek.

This would be a bit much. Casey sees room for two suppliers, arguing that even a three-horse race may be a bit crowded, denying the competitors the economies needed to offer a superior product. He reckons that the number will come down over time.

“I think it will start out with four competitors. My guess is, two will fall away,” he comments.

For years the market has waited for a conversion programme for the Airbus A320. Airbus briefly moved in that direction in 2011 but suspended the programme three months later as it moved ahead with the A320neo. Last autumn eventually saw a new A320 conversion push unveiled by PacAvi, which had teamed up with AeroTurbine, a wholly owned subsidiary of AerCap. AeroTurbine will perform freighter conversions at its Goodyear, Arizona, facility. The A320 freighter they intend to produce will have a maximum payload of 21 tonnes with a range of 2,000 nautical miles.

“"We are now facing an unprecedented amount of retirements of aircraft. We see a lot around 24,000 cycles, which is the prime zone for conversion"”
Brian McCarthy, Precision Aircraft Solutions

PacAvi has not mentioned a launch customer for the conversion programme but indicated that commercial deliveries should commence in 2017.

Convey thinks the A320 is coming too late, as it is essentially a competitor to the 737-400 rather than the -800, which will offer superior capacity and range. Casey, on the other hand, sees room for the A320. All key elements, from pilots to spare parts and maintenance, are in place, he remarks, adding that it is possible to find cheap A320 conversion candidates – unlike A321s, which are still rather high in price.

LCF Conversions is trying to break into the market with a low-cost solution to a widebody conversion (photo: LCF Conversions)
He sees a lot of potential in this type. “In the long term I can imagine the integrators take on A321s. I think it is going to be a good package freighter for them. Though it is probably a bit expensive for the growth markets (of general cargo) for the next 10 years,” he reflects.

With no A321 conversion programme in sight, the two current Boeing 757 conversion outfits can look forward to a good run of work for themselves. Precision Aircraft Solutions has its hands full at the moment, a predicament that is expected to last for some time. “In the next two to three years we are poised to do better than ever,” says Brian McCarthy, vice president of aircraft trading.

Finally, growing numbers of 757s are being released from passenger service at residual values that make them well suited for conversion. Customers are now clamouring for the freighter so the road appears clear for a good run of 757 conversions. “Now, our biggest problem is where we can convert these aircraft,” he continues. “It is going to be about slots. Kits, components and engineering support are there.”

Conversion outfits, freighter operators and lessors expect the main drivers for demand for narrowbody and medium widebody conversions to remain nearly unchanged in 2015, except for the Russian economy, which is hurting from a downturn coupled with the drastic erosion of the ruble. The low oil price, which is expected to remain depressed for some time, may help bring a few parked freighters back into action but is not likely to have any impact on conversions, they predict.

“Does everybody need that kind of payload? No, but you have markets like India where you haul a lot of heavy cargo,” McCarthy says. Precision does not charge for the winglets, but weight upgrades for the aircraft come at $32 per pound, which translates into an additional $384,000. “This pure payload – it is revenue for operators,” McCarthy states.

The factors that have driven the buoyant demand for narrowbody freighters – strong growth in regional markets like China, Brazil, Russia and Africa, and explosive growth in parcel traffic thanks to e-commerce (especially in China) – extend up into the medium widebody segment. Da Silva remarks that Boeing’s line-up, from 737s, over 757s to 767s, have roles to play in these markets.

The planemaker’s 767 conversion programme, which was first launched in 2004 with ANA, is back in action after a barren spell that saw no additional customers come on board alongside the Japanese airline. Now several conversions are in progress. As with the 757, the main factors – available feedstock at affordable prices and demand in the freighters driven by improving cargo markets – are finally aligned for the programme to take off for good.

“The feedstock situation has definitely improved. Today there are sufficient 767-300ERs in the market,” Da Silva says. “I think anything in the low teens makes for a very attractive candidate.”

Since December 2014, the 767 officially faces competition from Airbus, with EFW, the European OEM’s MRO subsidiary, announcing a deal with Egyptair for two converted A330-200s, plus options for two more. The P2F programme for the A330 (both -200 and -300 types) was launched in 2013, as part of a joint venture with Airbus and Singapore-based ST Aerospace.

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“For narrowbodies the oil price is a blip. Utilisation is less than 1,000 hours in a year. Asset cost is more of a driver than fuel cost,” comments Convey.