



# ALL CHAIN

**Left:** Vallair expects a move to younger, more fuel-efficient aircraft like the A321 Freighter or other newly developed new generation freighters

With a flurry of activity in the passenger-to-freighter conversions market, *Mario Pierobon* assesses the programmes and contracts which will help fulfil future demand



# G E

**T**he changing landscape brought about by Covid-19 and the increasing e-commerce demand has had important implications for the cargo conversions market. Indeed, the cargo segment of aviation as a whole was formerly somewhat in the background as growth rates were steady but not particularly remarkable.

With the advent of Covid-19 and the ever-growing demand for e-commerce, however, the significance and importance of cargo and logistics overall has come more to the forefront of the industry's perception, according to Vallair's director of trading and leasing Patrick Leopold.

"This can be seen quite well with lessors where cargo has received special attention to the point now where there is a real 'gold rush type' atmosphere to secure conversion slots and available feedstock," he says.

### **Temporary solutions and cargo conversions**

In parallel, airlines have had to adapt to the changing environment with temporary cargo solutions. One example is the use of passenger freighters, which have become known as 'preighters', observes Leopold. "The currently seen worldwide supply chain issues as well as increased pricing for sea transport are pushing demand further into the air," he says. "Whether the growth rates and the demand for air cargo remains as buoyant as they are currently remains





“THERE IS A REAL ‘GOLD RUSH TYPE’ ATMOSPHERE TO SECURE CONVERSION SLOTS AND AVAILABLE FEEDSTOCK”

**Above and below:** A flurry of conversions involving big market players “shows just how much additional capacity is being brought into the market in a bid to keep up with demand and projected demand”, according to IBA



to be seen; freighters will nevertheless step out of the shadow of passenger aircraft and will likely lead to portfolio diversification with lessors, as well as likely changes in airline

business models.”

IBA’s senior aviation analyst Jon Whaley says there has been “a hive of conversion activity involving Airbus A321-200, A330-300, Boeing 737-800, 757-200, 767-300ER and ATR72-500 [aircraft] following the Covid-19 pandemic”. He adds: “Even though the A321-200 is a very new programme, we are already seeing the number of aircraft reserved for conversion growing rather quickly. The 737-800 continues its very impressive performance as the number of conversions does not appear to be slowing down.”

Prior to Covid-19, cargo operators were having difficulty acquiring right-priced feed stock as the passenger market was on an upward trajectory, affirms Aeronautical Engineers’ (AEI) senior vice president of sales and marketing Robert Convey. “When Covid-19 hit and all the passenger airlines were grounded it not only freed up feedstock but also dramatically lowered the cost of the

aircraft,” he says. “The combination of these two factors meant that our customers could now afford to buy a 737-800 and had several to choose from. In addition, online ordering dramatically increased which in turn meant that the dedicated cargo airlines were seeing an increase in demand.”

According to Whaley, the A330-300 is looking to take over from the 767-300ER. “But make no mistake, the days of converting 767-300ERs are far from over,” he says. “We have seen Amazon, a large 767-300ER P2F customer, having issued a request for proposals for the Airbus A330. The A330ceo P2F programme is currently fully booked for a number of years due to demand and the limited number of conversion lines. For the 757-200, following American Airlines retiring the type due to Covid-19, we have seen the majority of these aircraft being acquired by parties with the aim of converting them to freighter aircraft. Some have already undergone the conversion process with others waiting for a slot to become available.”

### Conversion developments

Whaley affirms that the substantial developments that have been witnessed have to do with the number of new



programmes that have been revealed in recent times, two of which have been centred on the 777 family.

“Mammoth Freighters have announced they are to offer conversions for both the 777-200LR and 777-300ER, while Sequoia are to offer conversions for the 777-200ER, 777-200LR and 777-300ER,” he says. “Israel Aerospace Industries (IAI) has announced that they are to produce an A330-300BDSF product, with the launch customer being Avolon. This will be the second conversion programme for the type; the other being EFW’s A330-300P2F. There has been an impressive rate of conversions involving the 737-800, which has gone beyond what many, if not all, had initially forecast for the type. The pace of conversions is also not slowing down.”

Another major development that has been witnessed has been the rise of





**Above and bottom left:** AEI says the market is seeing strong demand for all ages of freighters as demand is out pacing supply **Left:** IAI is making strong progress on 777-300ER and A330-300 conversion programmes

reversible Class E cargo compartments as temporary cargo solutions, notes Leopold. “In addition, the classic cargo conversions generally see the installation of a main deck cargo door and thus require a lot of structural modification work,” he says. “This has knock on effects on other parts of industry and we see new industry solutions being developed.”

From a technical perspective, there have been small improvements such as LED lighting replacing traditional bulbs, but the overall design remains fixed, reports Convey.

“THE QUESTION AT HAND IS HOW LONG THIS [CONVERSION] DEMAND WILL LAST AND WHAT WILL CAUSE ITS SLOWING”

**Oil price effect**

Oil prices appear to be currently having very little influence on decisions to convert freighters, says Whaley. “However, we are seeing a trend to new generation types. It should be highlighted that this shift to newer types is primarily being influenced by feedstock for the older models starting to become limited,” he adds. “Obviously, the fuel burn on a 737-800 freighter is going to be less than on a 737-400 freighter (generally around 11 per cent, depending on the route), but freighters usually volume out before weighing out. This means one can often de-rate, and with a good slice of the flying at night in the cool there is an easier use of the engine, and thus reduced fuel burn.”

Indeed, in the narrowbody sector fuel prices do not weigh as heavily as in the widebody sector because there is much less utilisation, according to Convey. “At the moment we are seeing strong demand for all ages of freighters as demand is out pacing supply,” he reports.

While the effect may not be particularly significant, oil prices and jet fuel prices are heavily correlated.

“This will ultimately drive the move to younger, more fuel-efficient aircraft like the A321 Freighter or other newly developed new generation freighters,” says Leopold.

**Fulfilling future demand**

Big players in the shipping sector such as Amazon, DHL and FedEx are all expanding, with all three having taken on 737-800s through agreements with ASL Airlines (Amazon and FedEx Europe), iAero (DHL) and Sun Country Airlines (Amazon). Amazon also utilises contracts with Atlas Air, Air Transport International (767-300ER) and Silver Airways (ATR72-500), observes Whaley. “Looking at the recent conversions involving the above parties shows just how much additional capacity is being brought into the market in a bid to keep up with demand and projected demand,” he says.

Convey emphasises that all conversion providers are currently experiencing backlogs of several years – a situation he says has never been seen before. “For the next few years, the market will easily be able to absorb the freighters that are being converted. The question at hand is how long this demand will last and what will cause its slowing,” he says.

At the moment it is hard to keep up with the demand and this is likely to continue for some time, according to Leopold. “However, we know that aviation comes and swings in cycles, so the challenge will be to transfer these booming times in cargo into sustainable growth,” he concludes. ©