FREIGHTER TRENDS

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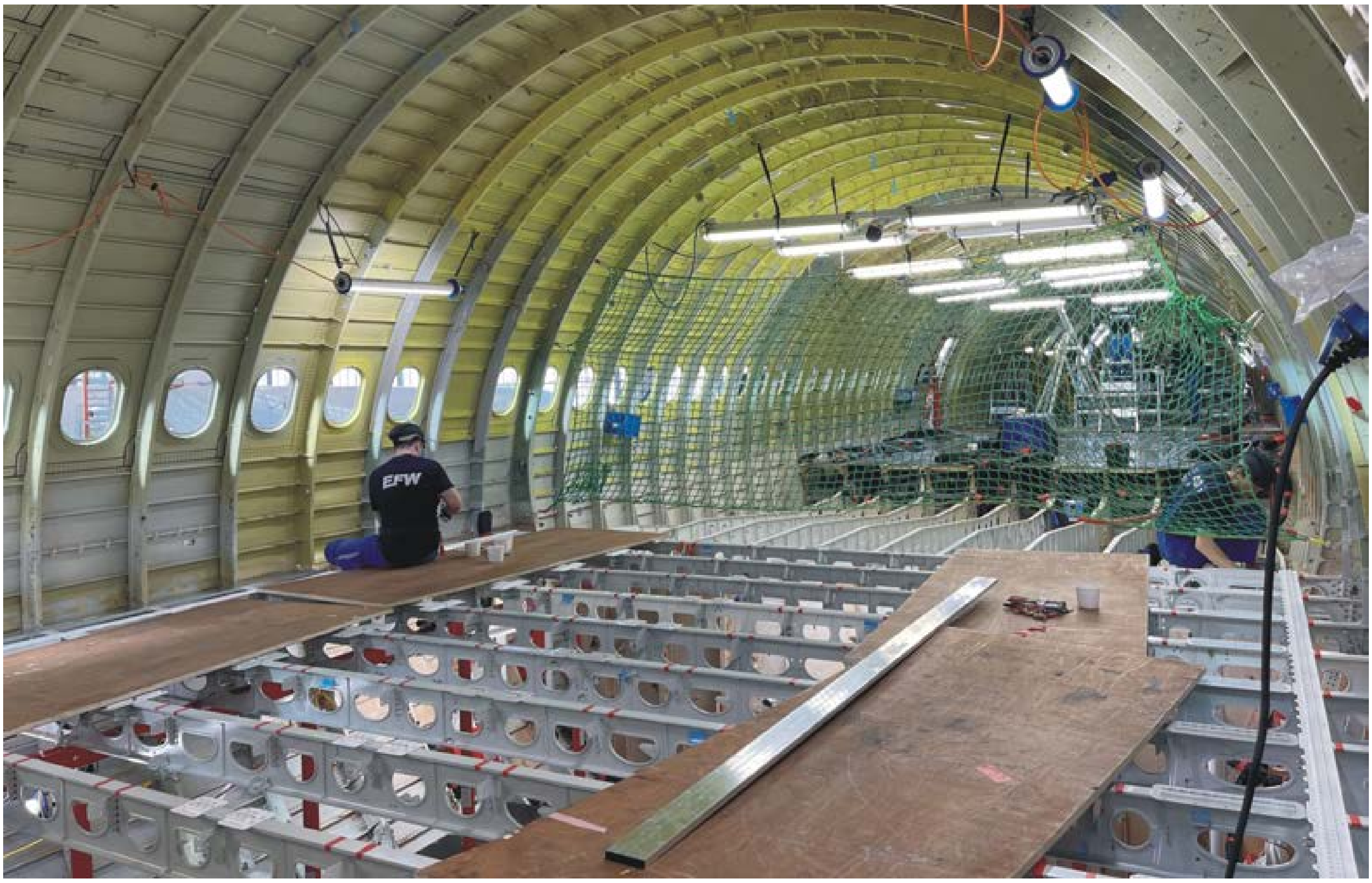
AN UPDATED TRENDS IN THE FREIGHTER INDUSTRY, P2F CONVERSION, MRO & AEROSPACE

THE FREIGHTER DEMAND WILL RETURN BEFORE THE OEMS ARE ABLE TO CATCH UP ON NEW AIRCRAFT DELIVERIES

The growth of the passenger market has various factors contributing to it, including the increase in global trade and e-commerce, air cargo's competitive advantage, efficiency and flexibility of freighter aircraft, retirement of older aircraft, growth in express and time-sensitive deliveries, government policies and incentives, technological advancements, and global economic growth. These factors have subsequent effects on freighter operations and freighter conversions, as airlines adapt to meet the growing demand for cargo transportation. Freighter Trends learnt that the freighter demand is likely to outpace the ability of OEMs to deliver new aircraft in the near future, leading to a continued shortage of freighter capacity in the air cargo industry. Here are the details .....

What are the factors contributing to the growth of the passenger market and the subsequent effects on freighter operations.

Zachary T. Young - Director of Sales and Marketing, 321 Precision Conversions, Precision Aircraft Solutions - Many factors (macro and micro) influence passenger and freighter operations. Some major integrators are consolidating capacity and re-prioritizing freight which is shipped by land or air. Due to typical shorter sector lengths vs widebody, narrowbody freighters are more sensitive to shipping by truck competition. Not everything needs to arrive "tomorrow", and shipping by air remains the most expensive mode of transportation. Freighter conversions are a long-term investment with at least 12-15 years of planned useful life. Many conversion orders were committed based on speculation and opportunity in the height of the pandemic. In the current market, there is an abundance of narrowbody capacity



TEARDOWN AIRCRAFT AND ENGINE SUPPLY REMAINS LOW AMID SUPPLY CHAIN CHALLENGES

The aviation industry has been facing significant challenges in the supply chain, leading to low availability of teardown aircraft and engine supply. In an exclusive to Freighter Trends, the leaders in the industry shared that the supply of teardown aircraft and engines has been limited, affecting airlines, maintenance providers, and other industry stakeholders. There has been a surge in demand for aircraft parts due to the gradual recovery of air travel and the need for maintenance services. Industry stakeholders are exploring various strategies including improving inventory management practices, enhancing collaboration between suppliers and manufacturers, investing in digital technologies for supply chain visibility, and exploring alternative sources for parts procurement. Here are the details .....

Can you provide an overview of the current state of the aircraft teardown market?

Lee Carey, VP Asset Management at EirTrade Aviation - The supply of aircraft and engines for teardown has been low in the past eighteen months, and far below the figures that were being forecast for retirement during and after the pandemic. The lack of supply of aircraft being retired is a direct result of a supply chain issue relating to the production and delivery of new aircraft, as well as various issues relating to new generation aircraft. Furthermore, the recovery of air traffic after the pandemic has been much faster than originally anticipated, and this has meant a shortage of aircraft to cater for the demand of air travel.

As a result, most operators are retaining a lot of their fleet for an extended period to deal with the various supply chain issues which many industry experts expect to continue beyond 2030.

The reduction of aircraft being retired has a knock-on impact to the industry as a whole by increasing the base value of older assets, reducing the availability of used serviceable material (USM) and as a direct result, increasing the cost of maintenance activity.

Lee Carey

Lee McConnellogue – CEO, ecube : We see many lessors and airlines now normalising their business around a constrained environment, enabling them to make clearer decisions. That is very different when comparing to the last year or two where it's been very difficult to do that. It is clearly a seller's market at present, creating demand and competition for aircraft, engines, and components. Asset owners are directing aircraft to us to access the engines and that will certainly see an uptick in phase outs, or at a minimum, short- to medium term storage programmes being established. However, it is highly likely that the primary focus for lessors and airlines will be around lease extensions, due to the lack of available in-service aircraft, so the phase out timeframe could be pushed to the right.

Abdol Moabery, CEO, GA Telesis - In 2019, our forecast for the number of aircraft that would go to disassemble was roughly 1,100. Last year, the number did not approach 400; this year, we predict about 400 or fewer aircraft. The market needs more, but due to delays in deliveries of new aircraft, especially narrowbodies, few aircraft are available for disassembly and parts redistribution. As things stabilize with the airframers, we are going to see the number go up on a sizeable scale, but that would be until 2026 at the earliest.

Sustainability is mentioned as a key consideration in aircraft teardown. How are organizations incorporating sustainability into their teardown practices?

Lee Carey - EirTrade is proud to be an accredited member of the Aircraft Fleet Recycling Association (AFRA). "The AFRA Best Management Practice for Management of Used Aircraft Parts and Assemblies and for Recycling of Aircraft Materials (BMP) are documents that represents a collection of recommendations concerning best practices for the management of parts that are removed from an aircraft, engine or other asset during the disassembly of the asset at the end of its service life, and for the recycling of parts and materials that are recovered from an aircraft, engine or other asset during the recycling of the asset at the end of its service life." (AFRA, 2024). Https://afraassociation.org/accreditation/the-afra-bmp/

Lee McConnellogue – Sustainability and aviation's circular economy is paramount across our business. ecube's storage, disassembly and transition services are centred around three R's Reuse, Repurpose and Recycle. We enable components to be reused through our disassembly service, with most components removed rejoining the circular economy after overhaul, resulting in one less component needing to be manufactured from new. These components are typically made from high value and rare materials that are difficult to source and manufactured using high energy processes. The carbon footprint of a reused part is significantly smaller than a new part! In 2023, we saw 48,521 components return to the supply chain.

Combined, our repurposing and recycling efforts saw more than 1,100 tonnes of surplus material get a new lease of life last year, being either repurposed for use within education and training, sold as memorabilia for enthusiasts or recycled. Our Plane Reclaimers brand is the place to go to get your hands on some incredible material if you're an enthusiast!

Abdol Moabery - At the most basic level, GA Telesis exceeds environmental regulations and standards set forth by the industry and AFRA. However, we are also one of the few companies that achieved


Lee McConnellogue

ISO14001 accreditation, which sets a benchmark for environmental standards as it relates to "Best practices." We operate by these guiding principles:
Strict Environmental Compliance
Component Reuse and Recycling
Proper Materials Disposal and Recycling
Waste Reduction
Energy Efficiency
Documentation and Reporting
Collaboration with Internal and Industry Stakeholders

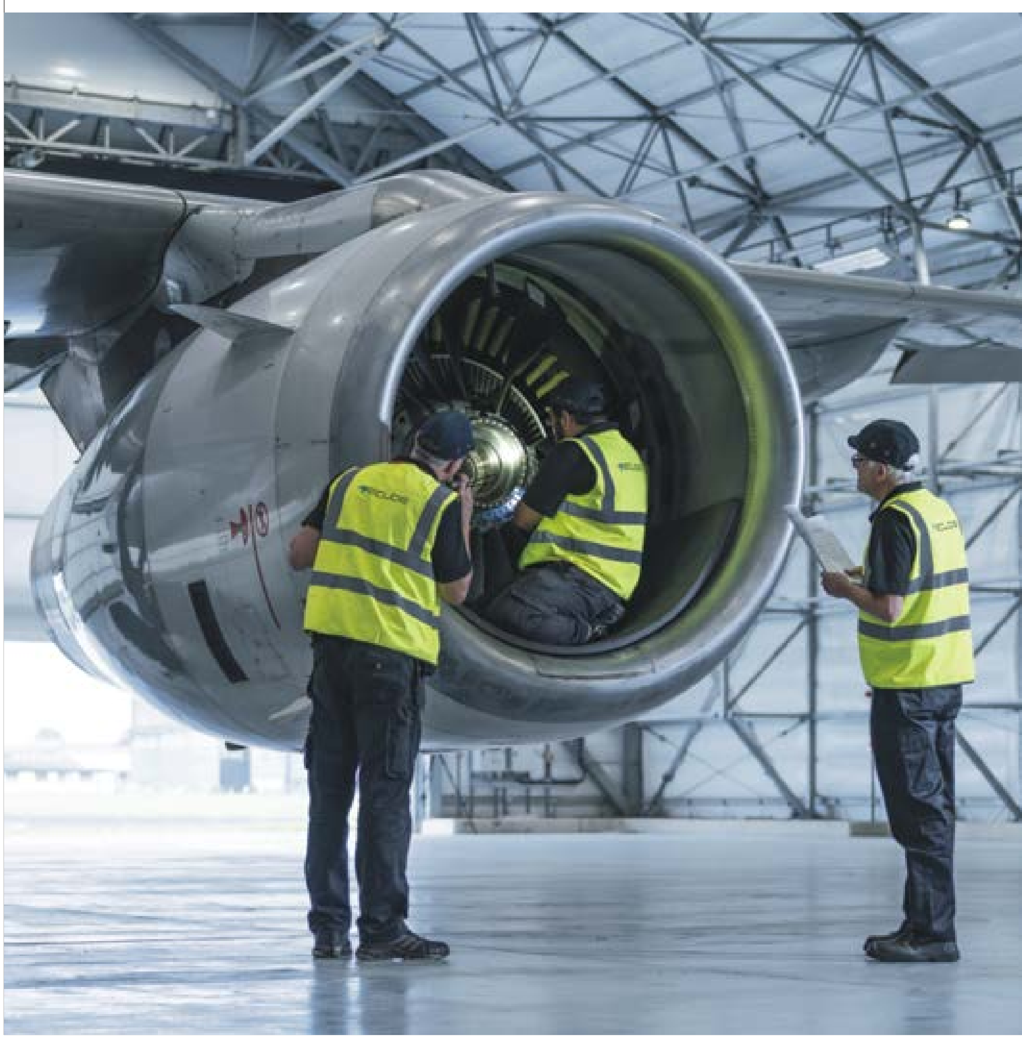
Based on the current trends, what expectations do you have for the aircraft teardown segment in the coming years?
Lee Carey - In the coming years we can expect that the supply of aircraft and aircraft engines for teardown to continue to be low given the ongoing supply chain issues impacting the delivery of new aircraft, along with other issues that have arisen relating to newer technology aircraft.

To help mitigate the impact on operations, airlines will need to continue to adjust their fleet renewal strategy, and this will mean delaying the retirement of older aircraft and extending some of their current lease agreements. It is also worth noting that the market value of USM will continue to increase due to reduced supply of material from disassembled aircraft and engines.

Lee McConnellogue – The core aircraft types of the disassembly sector have been, and will likely remain, the A320 family and 737NG. In fact, 90%+ of all the aircraft we disassembled in 2023 were these models. This year however, and for the next few years to come, the mix is far wider. We are already forecasting completing more widebodies than we have in the last two years, and we've seen a spike in regional jet enquiries, not just the obvious E jet series but also CRJ and ERJ 145s.


Abdol Moabery

Abdol Moabery - Things will get a lot tighter in the aircraft teardown segment. The industry is begging for higher standards, and it is important that all companies, big and small, adhere to the same standards to ensure we are all doing our part. The regulatory authorities do not have the time or resources to do this and should not burden the airlines and MROs. It is up to all of us to operate at the highest level of standards to ensure a compliant and efficient marketplace.



How are aviation service providers responding to challenges in the regional and narrowbody aircraft teardown market?
Lee McConnellogue – One of the key challenges stems from lack of inflow of new generation aircraft as delivered by the OEMs, this generates uncertainty on disposition of aircraft at the airline and lessor level. As a service provider we must be ready to provide the slot availability, industry leading turn times and quality required to deliver as and when aircraft flow out from the originators.

Abdol Moabery - We are all very busy trying to keep up with the demand. The delays in aircraft and engine deliveries have caused an extension of aircraft operations and a resurgent demand for legacy aircraft models. As a result, about 30% of the forecasted aircraft are available for teardown. What we are doing to manage the demand load is to ensure our customers are never waiting longer than the normal lead time for material. This is resulting in us making significant investments to better serve the world's airlines.