MEETING THE TOP FIVE CHALLENGES FACING WIDEBODY AIRCRAFT TRANSITIONS

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THE NEW AND USED NARROWBODY AIRCRAFT MARKET continues to be significantly larger than the widebody aircraft market in terms of both the number of operators, and aircraft volume (~600 operators flying ~14,000 narrowbody aircraft compared with ~275 operators flying ~4,000 widebody aircraft). This limited market coupled with the current availability of next generation widebody aircraft from the main airframers contributes to a challenging second operator market – new aircraft competing with used for a limited number of customers.

In addition, a number of the widebody aircraft types have been specifically designed for particular operations i.e. large passenger volume, extra-long haul, etc. This niche segmentation approach further limits the second operator opportunities as widebody aircraft tend to have less flexibility with regard to alternative operation and route structures.

Although the widebody market is smaller in volume, it is undergoing considerable growth – for example, Rolls-Royce had an installed engine fleet of 2,160 in 1995, 4,600 in 2015 and reaching 7,450 by 2025.

An added dimension to this is an increasingly competitive market. With challenging economic factors and increasing consolidations across airlines, the pool of established airline operators capable of taking on new widebody aircraft has decreased. Thus we have started to see airframe OEMs selling new aircraft to operators that would traditionally be seen as good homes for used aircraft. This is great for new sales and lease placement opportunities, but not so good for transitioning aircraft.

As such, the opportunities for transitioning widebody aircraft have shifted to ‘non-traditional’ market spaces that can present additional challenges such as airlines having little experience with widebody operations, no pre-existing relationships, unknown credit risk profile of the airline, the business model of the airline that demands a certain type of service package and cash flow profile, support infrastructure such as spares pooling that need to be established etc. This adds complexity and risk to the proposition that all stakeholders need to be aware of and deal with accordingly. Although there are undoubtedly challenges, these markets also present a significant opportunity that will continue to grow.

A further challenge to the market demand for widebody aircraft is the significantly higher operating costs associated with a widebody aircraft compared to narrowbody. Therefore, the business case for operation of a widebody aircraft typically requires a far greater level of detail, financial commitment and risk mitigation by the lessor and operator.

If the next operator is an existing widebody aircraft operator, then the decision-making process and business case evaluation requirements needed to acquire further widebody aircraft may be relatively well understood and
lower risk. However, for new operators seeking to enter the widebody market there can be significant start-up challenges, including:

- managing a different business model to narrowbody aircraft purchases e.g. airframe and engine original equipment manufacturer contracts are typically negotiated and administered separately;
- significantly higher financial commitment, both upfront and through life operational cost;
- specific aircraft types are better suited to certain route structures and operations, therefore widebody aircraft tend to offer less flexibility; and
- potentially higher risk due to the multiple stakeholders and greater operational costs involved in operating a widebody aircraft fleet.

Reconfiguration costs

Typically, the second aircraft operator will require significant internal reconfiguration compared with the original operator’s configuration, which may include seating, class layout, in-flight entertainment (IFE), galleys and toilets. The airlines requirement to maintain a consistent fleet standard adds time, cost and complexity to a widebody transition.

Costs can also vary considerably, with figures of US$10m recently quoted for an Airbus A330 internal reconfiguration. In addition, lead time of items such as seats and IFE can be significant if no forward demand signal is placed on the supply chain, particularly with the delivery demands the suppliers are under to ensure new original equipment aircraft supply rates are achieved.

Industry acceptance of a more standardised configuration approach would help reduce costs, lead times and ease future transitions.

Understanding the aircraft and engine condition

Given that the engines on a used widebody aircraft can be up to 80% of the overall value, understanding the true condition of specific engines on a specific aircraft, particularly the life remaining within them, is a key input to any widebody business case. Understanding of flying hours remaining and subsequent shop visit maintenance costs is vital to support an informed decision. Historically regulatory requirements have not prioritised making engine records easily accessible, relying on an out dated manual job card process.

A common situation is that an individual aircraft can be offered to multiple prospect airlines before an MOU is signed. Along with the requests for data, records, airframe and engine conditions, etc., airlines want to know the likely cost of engine maintenance before they will sign the lease paperwork.

Accordingly, the engine OEM is rightly asked to provide a firm indication of these costs. For a Rolls-Royce powered aircraft this would usually manifest itself as a TotalCare or SelectCare offer. There have been cases where maintenance cost data has been provided for circa 10 opportunities before the final placement was defined, and each of these opportunities had subtly different requirements and were in different business situations.

For the OEM this means a considerable requirement for resource to evaluate, prepare, propose and explain the offer, carried out in isolation by regional customer teams. For the owner this can result in confusion around why different inputs are supplied and frustration in time waiting for answers. In a market where windows of opportunity can run to days rather than months this can make the difference between the airline pursuing the opportunity or not.

Rolls-Royce is rolling-out, initially to its wholly owned and joint venture refurbishment and overhaul shops, a digital engine record management system. This allows Rolls-Royce to capture, store and provide accurate engine condition reports to operators and lessors quickly, accurately and securely; supporting business case development, air worthiness requirements, and asset value retention.

Acquiring used aircraft can be significantly more complicated than purchasing new, where the process can be managed efficiently to suit the operators and the manufacturers’ timescales for the aircraft manufacture and
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delivery, the customers’ configuration requirements, and
the contracting of aircraft support services. Much like the
used car market you are dealing with a specific aircraft with
specific configurations, airframe and engine conditions, and
potentially multiple stakeholders - owner, operators, lessors,
engine original equipment manufacturers etc. Management
and administration of a used purchase (particularly if
multiple aircraft) can be a significant cost and time burden
on a new operator.

Rolls-Royce understands the complexity and has taken steps
to make the remarketing phase of a transition more efficient,
through the streamlining of its sales and remarketing
processes it is now able to respond more quickly and
efficiently to multiple used aircraft opportunities.

Service choice, flexibility and simplicity
Depending on the age and the planned operation by the
second operator of the widebody aircraft, it may be that
the intention is to fly the aircraft to retirement, fly for a
fixed (lease) period and return/sell on, or simply assess the
market following the short-term or seasonal need. Whatever
the main driver for the aircraft, the second operator
requires a choice of flexible services to manage the aircraft
during its operation, a need that Rolls-Royce fulfils with its
CareServices offering choice and flexibility across the full
lifecycle of the aircraft.

Linked to, but by no means exclusive to the above is
the issue of spare engine and parts provision. It is well
understood in the industry that an airline requires a certain
level of spares coverage to ensure that their operation is
protected. But when considering a placement of an aircraft
into an airline that does not currently have that aircraft or
engine type, the traditional cost of acquisition of these
spares can be considerable especially when a one-aircraft
fleet has limited potential to take advantage of economies
of scale. Rolls-Royce has services available within its
portfolio to mitigate these issues, specifically spare engine
services (sale, lease, emergency access etc), and Parts
Availability Service which removes the need for upfront
investment in Initial Provisioning (IP) parts by providing on-
site and remote access to critical spare parts.

What is always clearly understood is that each party in the
transaction needs to be profitable. What is not always clear
however is how each party makes money from the asset and
how their needs are met. In transitions where motivations have
been well understood upfront, we were able to approach the
activity with this in mind and tailor offerings accordingly.

For example, does the owner see this as the last lease in the
aircraft’s life, can the airline only commit to a short-term lease
until the viability of the business model is confirmed, does
the airline plan to satisfy maintenance needs by consuming
green-time, is the direct collection of maintenance reserves a
fundamental requirement of the lease, is there an opportunity
to structure something direct with the lessor rather than with
the airline, is there actually an opportunity to work together to
extend the current lease?

Where this has remained unknown it has resulted in friction
and misunderstanding, causing wasted time and effort by all.

Speed of response
Widebody aircraft transitions typically require involvement
from multiple stakeholders - selling operator, buying
operator, lessors, owners, engine original equipment
manufacturer, landing gear original equipment manufacturer
etc. The process required to agree a purchase can therefore
often be viewed as slow and inefficient with multiple inputs
required to complete a full widebody business case.

Rolls-Royce has recognised its part to play in the process
as the engine original equipment manufacturer and has
established a dedicated multi-disciplined Transitions
team whose aim is to make the engine decision as simple,
efficient and timely as possible. The team are focused on
improving our products and services, processes and people
to provide all the necessary information in a timely manner
to support a lessor or operators decision making process
and ultimately keep the Rolls-Royce powered aircraft flying.
Conclusion - the Rolls-Royce response

Rolls-Royce, through its dedicated Transitions team, is focusing on transitioning aircraft, working with operators planning fleet exits, targeting potential customers and supporting the lessors and owners remarketing activity to minimise the period between operators.

Although the challenges described above can contribute to a complex transition of widebody aircraft, one mitigating factor continues to be fuel. Fuel makes up the largest portion of cost for most airlines, especially on widebody operations, so its continued low price over the past few years is a real positive for the used aircraft market, with several aircraft types continuing in economical service or even being brought out of long-term storage.

The demand for used widebody aircraft will continue to be dependent on the volume of operators’ appetite for the specific aircraft type, however greater standardisation of aircraft configuration is seen as a key benefit to the second tier market, along with easily accessible ‘back-to-birth’ electronic records, including engine records. Rolls-Royce has recognised the key role we as the engine original equipment manufacturer have to play and are committed to continue to invest time, effort and a dedicated team to the development, simplification and efficiency of class leading transition services for owners, lessors and operators.

The other significant development, in terms of service offering, has been the launch of LessorCare, which is focused on the specific needs of lessor customers.

It comprises one single, comprehensive agreement for all Trent engine types, giving lessor customers access to all the services that they need throughout the engine lifecycle. It allows lessors to pay for what they want when they need it. The benefits are faster and easier service access, the incorporation of services today and for the future, and maximising possible return on investment.

LessorCare services include:

- **Customer support** - Rolls-Royce’s network of technical support, publication, and training to optimise responsiveness and keep aircraft earning revenue.
- **Transitions services** - a range of maintenance and availability services, to ensure aircraft move faster and more efficiently between leases. Services include engine maintenance and remarketing support.
- **Asset management** - a range of solutions that build on Rolls-Royce’s experience of working in close partnership with airlines worldwide to maximise engine values through their life-cycle.

Rolls-Royce has always been at the forefront of lessor support through its OPERA (Operating Lessor Engine Restoration Agreement) that provides portability and liquidity for maintenance value.

Under a traditional lease model, the airline would pay cash maintenance reserves to the lessor as security against hours consumed against major components including the engine. If Rolls-Royce provides maintenance under Foundation Services (time and material basis) the airline draws down on the reserve to fund such maintenance but is exposed to the frequency and cost of overhauls.

With an OPERA agreement in place between the lessor and Rolls-Royce it allows the operator to choose the value and benefits of a TotalCare Life agreement with Rolls-Royce; whilst ensuring the lessor has access to the maintenance reserve value at any time the aircraft is off lease, or importantly in the event of airline’s collapse. TotalCare Life ensures the engine is always fully reserved (reserves have been collected for the life consumed) and OPERA allows the access to and movement of this reserve between operators, or realised by the lessor in the form of OEM maintenance if the next operator does not take a long-term service agreement with Rolls-Royce.

OPERA has been hugely successful and aligns the needs of airline operators, lessors and engine OEM in a fair and efficient mechanism. As part of LessorCare, Rolls-Royce is preparing to take this service further with LifeKey which will be an enhanced form of OPERA.

Beyond these initial services, Rolls-Royce will continue to work with customers to develop LessorCare further, working towards even closer integration of aftermarket services and aircraft lease agreements.

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