Turboprop Aircraft Insight 2015

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Steady growth and new operator penetration continues…

It will not surprise many industry observers that most orders so far this year were from those areas of the world experiencing economic growth. At this year's Paris Airshow, with the exception of Wizz Air's bumper order for 110 Airbus jets, IAG's more recent announcement and the expected clutch of commitments from European based Lessors, most orders across all manufacturers were from emerging market carriers, or the USA.

In the turboprop sector, ATR has again been the principal beneficiary. However, the Bombardier Q400 did not leave empty handed. Furthermore, the announcement that an updated version of the Dornier 328 is to be manufactured in Turkey has sparked a debate about how the ageing fleet with less than 50 seats will be replaced.

*This review will focus on turboprops, but **The Sharpwings** will publish a similar insight on regional jets later in the year.*

New Turboprop Orders

In common with Airbus and Boeing, orders for turboprops have made fewer headlines thus far in 2015 than in 2014. However, the commitments placed have been more diversified than last year. The industry's heavyweight Lessor NAC announced no additional orders this year.

The largest order in Paris came from Cebu Pacific with a firm commitment for sixteen ATR72-600s and ten options. Although not new to ATR, this represents the first new -600 variant for the Philippines' carrier. In common with a few other Asian operators, the new aircraft will be delivered in a 78 seat high density configuration. Following Bombardier's 86 seat DHC8Q-400 variant, now in operation with NOK Air, this should serve to further improve the ATR's highly attractive operating cost.

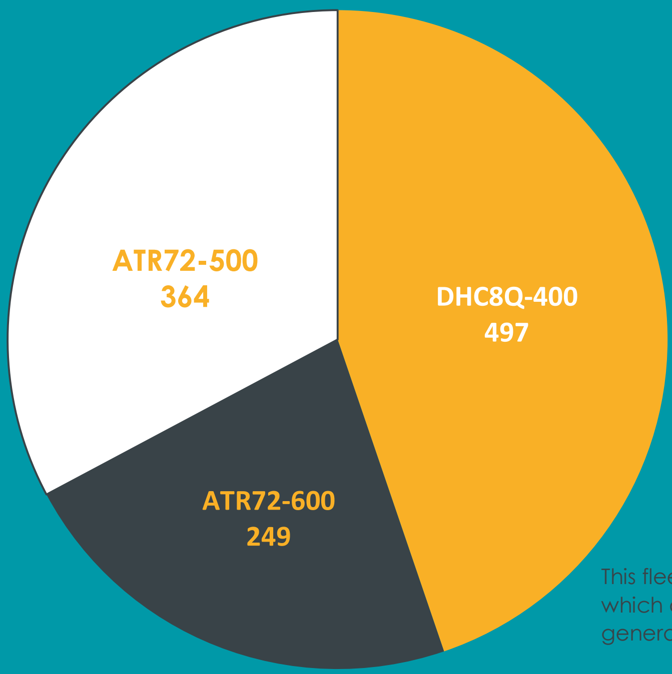
ATR has achieved a double success with Japan Airlines. First, it represents an order for eight firm aircraft and fifteen options with its maiden operator in Japan, and secondly, it is significant in that the commitment is for the smaller ATR42-600. The manufacturer believes there is considerable potential in Japan where 130 regional aircraft are already in service including 109 ageing turboprops with an average age of fourteen years. This order cements ATR's leading position in the Asia Pacific region.

ATR has also further diversified its operator base with an order from Bahamasair for five aircraft including three ATR42-600s thereby further consolidating its position in the Central American region.

Its core European market presence was bolstered by additional orders from Binter Canarias for a further six aircraft and Braathens which committed to five ATR72-600 with a view to gradually replacing its Saab 2000 fleet.

As was the case in 2014, Bombardier's DHC8Q-400 performed less strongly at this year, but it has secured six additional orders from West Jet Encore thereby consolidating its lead in the North American market. These orders will shift the current world fleet of large turboprops shown below in Fig 1 more in favour of ATR.

Figure 1- Current Generation in Service Large Turboprops



This fleet excludes original ATR72-200s, which are now considered to be older generation aircraft.

The Sharpwings' View

From a financier's perspective, current generation turboprops have become attractive assets *in recent years. A good geographical spread of existing operators, as shown in Fig 2 below, is a strong point for lenders and Lessors.*

Levels of geographical and operator concentration are also a critical value driver for a robust analysis of any particular aircraft after market. Investors dislike excess numbers of aircraft in a single region or large numbers of aircraft in the hands of a few airlines only as this limits their secondary market potential. In this context the current generation turboprops compare similarly to other aircraft types including the popular narrow bodies. Fig 3 below shows that the largest turboprop operator accounts for 5% of the world's fleet in comparison to Ryanair, which accounts for 8% of all B737-800s. Similarly, the next five largest B737-800 operators in the USA account for 17% of the current B737-800 fleet, by comparison to the same proportion of turboprops in the next five largest operators globally. This means that ***liquidity should be strong*** *and* ***used examples can be absorbed*** *with new or existing operators,* ***provided that operators or financiers choose appropriate used aircraft remarketing service providers that understand and know the turboprop market.***

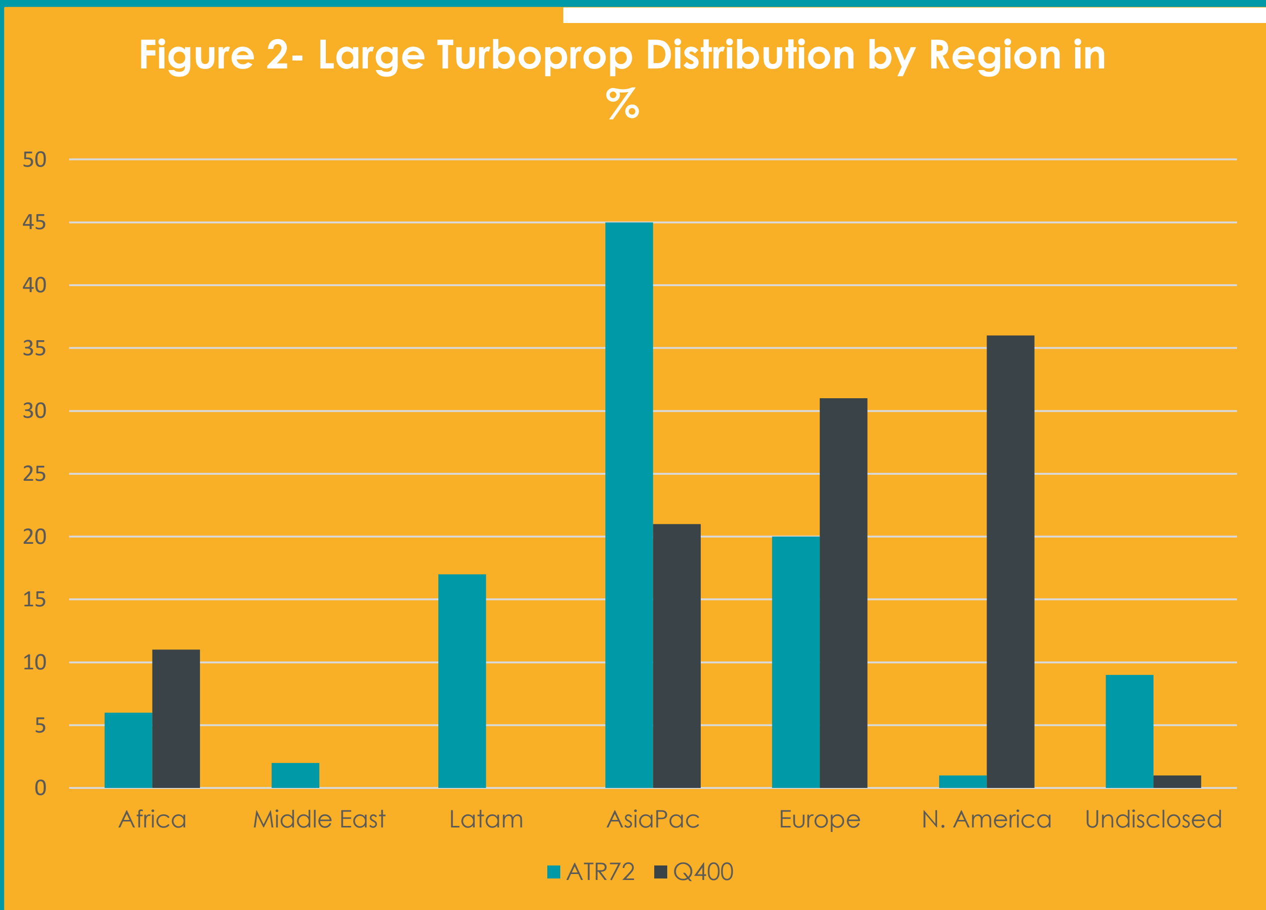
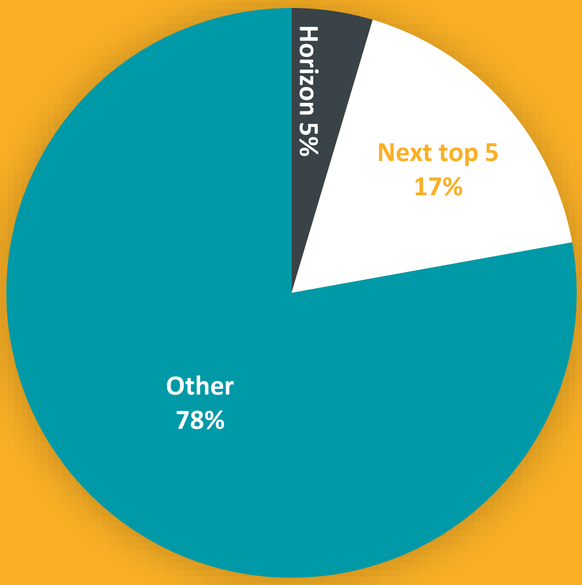


Figure 3 - Large Turboprop Operator Concentration



ATR focus

ATR has now sold over 1,500 aircraft worldwide to more than 190 airlines in some 90 countries. This has the effect of supporting residual values for the type which continue to hold up strongly. However, as the -600 increasingly becomes more widespread there is some evidence that values for older generation -500 variants have reduced modestly as some operators are replacing older aircraft.

*For those seeking to refinance existing fleets **The Sharpwings** believes that **there are good opportunities to complete sale and leasebacks (SLB) on ATR aircraft over the short to medium term** for leases with a lease period upwards of five years, as evidenced by its completion of one of the first SLBs on two ATR72-600s earlier this year for Intersky in Austria. This demonstrates that even smaller regional airlines are now more able to access finance than before.*

Bombardier focus

Given that the DHC8Q-400 is receiving fewer orders than its principal competitor, a softer future value outlook might be expected. Perhaps surprisingly, this has not proven to be the case in 2014 and the early part of 2015. Certainly, very low availability of used examples as well as an increased operator base means that those looking for incremental capacity have experienced modest increases in values so far in 2015.

Some existing operators are bolstering their fleet, notably Flybe, which is expanding with 31 additional units from Republic. This will decrease the US fleet substantially and leave the largest numbers in Canada and Europe.

LGW, which operates for Air Berlin has also increased its fleet and the type has had some success in Africa.

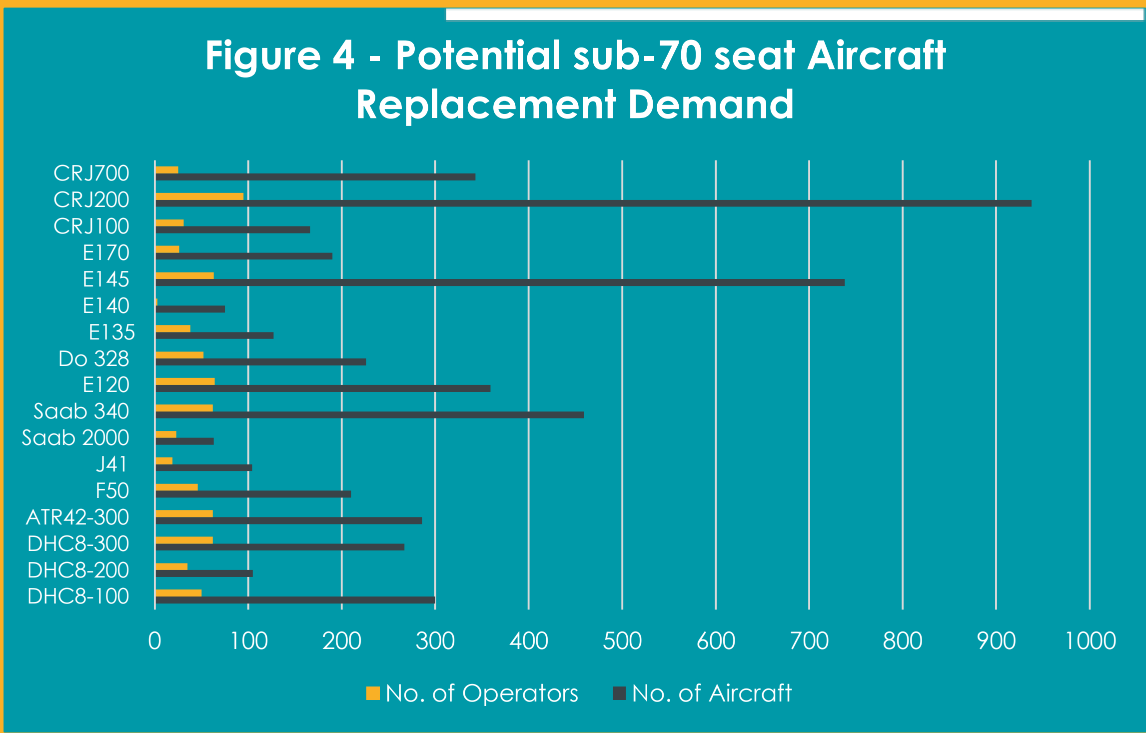
Given the stability in values, both the ATR and the Q400 have now found much better levels of penetration among the leasing community with some 25% of their respective fleets managed by Lessors. This is still below the levels of popular narrow-body types, but the proportion of leased aircraft is likely to increase further although it is unlikely to converge fully with the proportion for larger jet aircraft unless substantially more sources of finance become available.

The Sharpwings believes that used aircraft placement opportunities remain good and that sale and leaseback proceeds would also be more attractive as carriers can increasingly access capital to the full value of their aircraft.

Is there a demand for new aircraft below 70 seats?

Regional aircraft manufacturers used to exclusively occupy this segment, but all have now vacated this space except ATR which continues to manufacture the ATR42-600. However, sales have been slow although NAC committed to a significant order in 2014 and further orders were placed this year. No sub 70 seat regional jets are produced at all and Embraer have not included the E170 in its E2 line-up. While this suggests that Embraer believes there is no room for a new entrant, The Sharpwings does not necessarily agree.

A US company, Sierra Nevada Corporation, which has bought the type certificate for the Dornier 328, clearly also disagrees. It wants to restart production of the former Dornier 328 and 328 JET in Turkey, in cooperation with Turkish aerospace manufacturers. 328 contends that there are nearly 5,000 aircraft in this category, which will need to be replaced (see Fig 4 below)



Furthermore, 328 announced that the Turkish government plans to support the re-launch with an order for fifty aircraft. In addition, 328 plans a larger aircraft dubbed the TRJ628 and T628 as both a turboprop and a jet with seating capacity in the 50-70 seat range. The roll-out for the 628 is planned for 2023.

The Sharpwings' View

328's main contention is that the 5,000 aircraft that are still operating in this space will need to be replaced. This logic does indeed look persuasive as all the types mentioned in Fig 4 above are now out of production.

Clearly ageing aircraft in this category will at some stage need to be replaced despite the best efforts of some carriers to extend the design life of airframes. For example, the DHC8-100 now has a life extension programme to 120,000 cycles. While there may ultimately be some demand for sub-70 seat jets,

***The Sharpwings** believes the demand for turboprop replacements will be greater. From a capability perspective it will be important that such an aircraft has good short take-off and landing characteristics so that operators may serve remote airfields where many such smaller aircraft operate.*

Clearly the established manufacturers believe there is an insufficient market to justify a new 50-70 seat aircraft. Some, including Bombardier, contend that the price at which they would have to sell a relaunched DHC8Q-300 is too high so that they believe sales would be minimal.

Others believe that the operator base of such aircraft is now dominated by smaller independent carriers that cannot afford to replace them.

Finally, some business models rely on substantially written down aircraft to operate at all. While this implies high maintenance costs on older aircraft, their relatively low utilization means this can be the only workable strategy.

Despite these negative factors, it would seem that if only a fraction of these older aircraft were replaced, then there must be an opportunity to provide some competition to the ATR42-600.

Having only a single replacement option available at this time, has the effect of maintaining high residual values for certain types, including some good condition ATRs and well maintained DHC8-100 and 300s. While their values have declined moderately over the last year many aircraft have current market values well in excess of their projected base values.

The Sharpwings believes that with the appropriate third party support to identify the right placement opportunities or suitable Lessors, attractive returns from such smaller aircraft can be achieved.

Final Thoughts

The Sharpwings supports the increasingly held view that **turboprops will consolidate their position as the aircraft of choice in the 70 seat and below category**. Despite current lower fuel prices, this trend is unlikely to change. Consequently, residual values are likely to remain at least stable so that airlines can benefit from increasingly attractive leasing options. **The Sharpwings believes this applies to both new and used aircraft** provided that the applicable aircraft remains in production and is supported by its manufacturer.

In the below 70 seat segment, the aging fleet of aircraft are increasingly approaching the end of their economic lives, but the ATR42 aside, no replacement options exist. As there will always be markets requiring 30-70 seat capacity, **The Sharpwings** believes that another manufacturer could enter this space. Perhaps the 328 and 628 can fill this gap. This might even benefit ATR42 sales in the same way that CRJ200 sales took off when Embraer provided competition in the mid 1990s.