Aircraft Acquisition – the Basics

How do airlines decide when to get new aircraft? How do they decide how many to get? Who chooses what size of aircraft the airline should get? Or when those aircraft will come in to the fleet and what aircraft will need to leave in order to accept them? Answering these questions for an airline is what is done by the airline's Fleet Planners (or Fleet Development team). So in this article, I will outline the basics of how the decisions in Aircraft Acquisition are made.
There is a cardinal, but unwritten, rule in Fleet Planning that airlines ignore at their peril: "***The Network drives the Fleet, never the other way around***". Simply put, you decide WHERE you want to fly BEFORE you get the aircraft to fly there.
Because of this rule, the basics of acquisition of aircraft are inextricably linked to the basics of network planning.

Network Planning basics
Network Planning is a broad topic and will be addressed more fully in a separate article. At its most basic form, however, Network Planning is an ongoing activity that continually adjusts the airline's network in line with the company's strategy and what is happening in the market. Typically airlines will have a rolling 5-10 year network plan.
An airline's network is the core of its operations – the skeleton, so to speak. It provides part of

an airline's competitive value proposition and drives a large part of the operational structure. At its simplest, the network is the combination of all the routes to which the airline flies and how they connect with each other.
Network planners determine the collection of routes the airline needs to fly to in order to achieve its strategy. They look at projected passenger demand on different routes and the way passenger traffic flows to determine where the airline should fly to – and how often the airline should fly there – in order to provide the most efficient connections and the most profitability. The network drives the fleet requirement in the following ways:

- Combining the Network Planning outputs with a practicable schedule gives an output of the NUMBER of aircraft that are required.
- Projected Demand per flight in addition to factors like distance between the two destinations and government determined restrictions on number of flights determine the SIZE & CAPABILITY of the aircraft required.
- Projected growth of passenger numbers over the period determines TIMING of the aircraft requirement.

Aircraft Type Selection
With guidance on number, size and performance of aircraft and when they need to be delivered, the Fleet Development team then starts the process of selecting the type of aircraft to be used. This isn't a process that's undertaken very often as a lot of investment goes into introducing a new aircraft type into an airline's fleet. Therefore a lot of analysis goes into the decision as mistakes can be costly.
The selection is usually carried out as a competitive campaign between the Airframe Manufacturers that make planes within that size. For long and medium haul aircraft (widebodies and narrowbodies respectively) that is between Airbus and Boeing. For regional aircraft there is more selection with manufacturers like ATR and Embraer in addition to new entrants like COMAC, MRJ and Sukhoi.
The airline typically sends out a Request for Proposals (RFP) which lays out their requirements to the manufacturers. The manufacturer's take some time to prepare their submission – usually a few weeks. The proposals will normally include a product component (highlighting the design features and performance characteristics of the aircraft) and a commercial component (the aircraft pricing and concessions like discounts etc.). A cross-functional team from the

airline then spends the next few months seeking clarification and analysing the product component of the proposals, even as they negotiate the commercial component.
Alternatively, the process can be split into more phases, starting with an iterative Request For Information (RFI) process where they will request and receive information from the aircraft manufacturers on their products. The airline then uses the RFI process – and the information gathered therein – to define the requirements of the RFP, which is then issued as above. (It is not uncommon for airlines to use a third party consultant to support their process at different stages)
Once the analysis and negotiations are completed, the Fleet Development team – representing the cross functional team – submits a recommendation to the airline' s Board of Directors (or equivalent approval committee) for corporate approval.

Buy or Lease
Concurrent to the analysis and negotiations on the type of aircraft, the airline will need to make a decision about whether they want to buy, lease or use a combination of both options to finance the acquisition of the aircraft. Sometimes the choice is not available to the airline e.g. if there are no available purchase slots at the time the airline needs the aircraft, then the only option would be to seek aircraft to lease with appropriate delivery slots.
If the decision is to lease, further to the aircraft type selection, the airline needs to carry out a similar campaign with leasing companies that have aircraft of the required type available at the time the airline needs them.

Once the decision on what to buy (and when) has been made and all the relevant contracts and agreements (including leasing agreements) have been signed then the airline starts the process of preparing to receive the aircraft and operate them.

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