Foreword

There are only two fundamental reasons for acquiring new or different aircraft. Either the current aircraft can no longer perform the mission due to changes in the mission or the aircraft's operating conditions (obsolescence, costs, performance etc.) or due to the fact that the current aircraft is no longer cost effective in terms of the company's required parameters.

The outcome of a well-designed aircraft acquisition plan will show that the recommended aircraft, modifications, or upgrades and the associated acquisition and implementation schedule are the lowest cost alternative capable of accomplishing the assigned mission. To accomplish this, the plan must:

- Identify and quantify the real transportation needs
- Differentiate between "must have" and "nice to have" requirements.
- Identify the aircraft best able to meets the technical requirements.
- Balance acquisition cost with operating costs for the greatest benefit with the least investment.

In formulating the plan it is important to remember that the aircraft acquisition process can take several years. Once an aircraft is in the fleet, it will probably stay there for five to ten years. This places a premium in the planning process.

An effective plan consists of the following elements:

- The organization's real aircraft needs.
- Key missions and evaluation parameters.
- Sources of information.
- Technical analysis and ranking.
- Fleet size.
- Financial alternatives.
- Financial analysis and ranking.
- The aircraft acquisition plan.
Current Situation and Needs

The foundation of any acquisition plan is to understand the missions assigned to the flight department. When this is compared to the current capabilities of the aircraft in the flight department, a very clear picture emerges of where the current aircraft meets the requirements and where there is a shortfall.

Aircraft and Travel Needs, Problems, Objectives and Constraints Checklist

1. What are the company’s travel needs:
   
   A. Range/passenger/frequency/patterns
      a. Current patterns and needs
      b. Probable/possible changes
      c. New outlets/products/markets
      d. New uses for aircraft
      e. Requirements not currently met (range, speed, size and type of operation)
   
   B. Aircraft usage patterns
      a. Load factors and trends
      b. Utilization and trends
      c. Origins – destinations
      d. Scheduling problems
   
   C. Like/dislikes
      a. Cabin/Baggage space
      b. Intermediate stops (requirements/desired)
      c. Amenities/furnishings
      d. Speed/range/performance
      e. Image (internal and external)

2. What are the flight department problems, needs, objectives:

   A. Current fleet
      a. Composition and age
      b. Reliability/maintainability
      c. Operating cost
      d. Likes and dislikes
      e.
   
   B. Operational Constraints
      a. Runways
      b. Over-water/international/long-range/hot-high
      c. Noise

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d. Cross training/fleet commonality  
e. Other factors including current situation and future (Industry) trends  

C. New aircraft guidelines & key factors  
   a. Fleet mix  
   b. Costs  
   c. Performance  
   d. Support/maintenance  
   e. Trade-offs and Priorities  

3. What are company constraints?  
   A. Fiscal  
   B. Travel Policies  
   C. Image  

The basic procedure used to arrive at an objective set of needs and requirements starts with an examination of the mission assigned and the aircraft available to accomplish those missions. The analysis should take into account the current situation and the likely future changes. The best place to start is with the flight hours flown in the past few months and years. Add to this a projection of future flight hours.
Example of Stated Future Aircraft Requirements

The following is an example that might summarizes the company’s requirements as stated in discussions with management flight department personnel and/or senior management:

A. Performance
   a. Needs to do the xxx trips with xxx passengers
   b. Must be able to utilize xxx airports
   c. xx% of trips will be xx nautical miles range
   d. xx% of trips will be xx nautical miles range

B. Comfort
   a. Cabin requirements must be xx
   b. Lavatory must be configured xx
   c. Seats for xx passengers (normal and max)
   d. Baggage size must be xx

C. Supportability
   a. Must be in current/recent production with proven track record
   b. A maximum of xx types of aircraft
   c. Must not require new equipment/hangar/training/facilities
   d. Expectation of matching/improving current spares/maintenance support

D. Costs
   a. Must be cost effective and fall within a budget of xx
   b. Used or demo aircraft will be considered (xx to xx years old) current spares/maintenance support

This is just the beginning. A complete plan will cover the following areas:

A. Current Situation and Needs.
B. Key Missions - Missions that define success for the organization’s use of aircraft.
C. Evaluation Parameters. The quantifiable criteria that are used to measure the aircraft’s ability to perform the key missions.
D. Technical Analysis and Ranking - Focus is on evaluating aircraft with regard to technical features such as size, range and performance.
E. Fleet Size - How many aircraft are needed to perform the mission?
F. Financial Alternatives - Lease, purchase, shared ownership, fractional ownership, charter are just a few options that could be addressed.
G. Financial Analysis & Ranking. Determine which aircraft capable of performing the mission provides the most capability for the money. Can involve cost-benefit analysis and net present value calculations.