Strategic Planning for Single Aircraft or Fleet Replacement

NBAA Maintenance Management Conference

Presented by Barry Justice
Welcome to Historic Fort Worth
The Fort Worth STC
Impossible

Fly to Sun
Seems Impossible
Kennedy Vision

Vision
Apollo 11 Lunar Landing
Kennedy Vision
Space Shuttle
STS – 78 Launch
Commander Tom Henricks

STS – 44 (Atlantis): Pilot
STS – 55 (Columbia): Pilot
STS – 70 (Discovery): Commander
STS – 78 (Columbia): Commander

Currently: Vice President of Marketing at CAAP
Piggyback
Strategic planning is long range
• Twenty years from identified need until operational vehicle

Although Shuttles are designed to last 40 years, mission needs, threats and technology will change
• Plan for follow on vehicle before current one is operational
• Designed for upgrades

A method to flight test the orbiter for landing and then getting them from CA to FL was almost a show stopper
• The guy who thought of putting it on a 747 was laughed at
• He built a scale model and proved it could fly
• The 747 was modified with a split vertical stab to accommodate the aerodynamics of carrying and releasing the orbiter
Developing a Strategic Plan

How do we begin?
Rule # 2

“Begin with the end in mind”
Flight Department Aircraft Replacement

How We’ve Done It In The Past

• Reactive
• Tactical

Versus
Flight Department Aircraft Replacement

How We’ve Done It In The Past

• Proactive
• Strategic

Which leads us to
Rule #1

“Be proactive”
**Why This Is Important**

**Gretzky Strategy**

**Question:** How did you score so many goals?

**Answer:** “A good hockey player plays where the puck is. A great hockey player plays where the puck is going to be.”

**Commentary:** We believe the same strategy applies to understanding aircraft values. It’s important to understand not just where they are today but where they are going to be.
Aircraft Replacement Strategy
Primary Objectives

Strategic Objectives Should:

• Align aviation assets with needs with the core business

• Have a process to keep aircraft assets modernized with input and approval from:
  • Executive senior leadership
  • Finance
  • Tax
  • Legal
Aircraft Replacement Strategic Objectives

Supporting Goals

Have a plan that supports the following goals:

- Aircraft that are either new or relatively new with the latest technology
- Well defined process to keep the plan current
- Aircraft must meet the operating mission
- Aircraft must meet the capital budget
- Meets the operating budget
- Mitigates market risk
How Do We Begin

Outlining the Process

There are a number of elements that should be considered as begin:

• What’s the overall objective?
• What are the constraints, capital, technical and other?
• What happens if you do nothing?
• What’s the time line?
• Develop a team and define the respective roles and responsibility of the various team members.
Process Details

Company Size and Culture Drive Process Details

While company or organization size and management styles will effect the process…

Regardless of size or management culture these competencies are usually represented in the aircraft replacement process.

• Executive - CEO
• Finance – CFO
• Legal – Internal and External Legal Counsel
• Tax – Tax department
• Aviation – Director of Aviation, Director of Maintenance
• Outside Advisor or Consultants
Planning Template
Work Process Flow

Develop Aircraft Analysis Planning Model for Aviation Department Strategy And Business Plan

Phase I – Current State

Phase II – Customer Needs Assessment

Phase III – Alternative Aircraft & Financial Analysis

Phase IV – Plan Implementation
Current State Assessment

• What’s driving the change?
• Forecast utilization / geographic profile
• What’s the history been with the aircraft or fleet?
• Develop a baseline budget for comparison to future aircraft for capital and operations cost.
• Identifying the management style of the company and how that effects the process
Customer Needs Assessment

Mapping the Desired Future State

• Defining the objectives

• Deciding what will be required to achieve the desired outcome

• Alignment of wants and needs
  – Be careful they are usually different
Alternative Aircraft & Financial Analysis

Alternative Aircraft Considerations

• What aircraft types and manufacturers to include?
• Supply chain sourcing options should be considered?
• Aircraft are being considered for replacement.
  – Timing considerations?
    • Lead time for new or pre-owned
    • Forward or reverse 1031 Like Kind Exchange
    • Timing for selling relinquished asset
    • Sometimes timing drives the decision (if order backlogs are too long)
• Trade or sell relinquished asset
Alternative Aircraft & Financial Analysis

Financial Analysis

• Capital costs
• Operating costs
  – Fixed
  – Variable
• Cash flow analysis
• Residual Values
  – Historical and Forecast
• Net Present Value
Case Study - #1

**Organization**

- Large Multinational Corporation
- Several Multi billion dollar companies
- Multiple bases of operation

**Situation**

- Nine aircraft, seven different types with aging issues
- $85 million aircraft on order placed by various subsidiaries
- Disconnect between business units
- No flight department input
- Acquiring company with two additional aircraft
Case Study - #1

Key Objectives

• Assemble strategic planning team and plan
• Assess & align aviation needs with core business
• Replace fleet with newer aircraft with less types
• Mitigate market value risk

Outcome

• Developed strategic plan with input from senior executives, flight department, tax, HR, legal and finance
• Reduced aircraft types
• Reduced capital
• Newer aircraft
• Lower operating budget
Case Study - #1
Timing can be Critical

GIII Residual Value by Year/Quarter

- Executed sale in anticipation of market decline
- In five years the aircraft lost $7M in value
Case Study - #2 - The $10 Million Galley

Timing can be Critical

G IV Residual Value by Year/Quarter

Recommend sale at appraised value of $16M

Actual sale at $6M
Why the Gretzky Strategy Matters

Question:
What is the greatest cost of owning and operating an aircraft?

Answer:
Market Depreciation!
Question – What’s the Greatest Cost of Aircraft Ownership

Historic Residual Value – All Business Jets

Average Percent of Original Price vs. Age (Years)
Aircraft Specific Residual Value History

Historic Residual Value – CL604 vs. GIVSP

CHALLENGER 604 Residual Value by Year/Quarter

G IVSP Residual Value by Year/Quarter

1996 - 2001: Up market

2003 Market Bottoms

2004 - 2008: Up market

2008 Market Crashes

1996 - 2001: Up market

2003 Market Bottoms

2004 - 2008: Up market

2008 Market Crashes

0% 20% 40% 60% 80% 100% 120%

Year/Quarter
Aircraft prices have historically followed an 8 - 9 year cycle and are correlated with the performance of the stock market.
Price Sensitivities Considerations

• Price sensitivity is inverse to price
• Markets reward “risk removal” and technology
Aircraft Specific Residual Value History

Historic Residual Value – G550 vs. Global XRS

G550 Residual Value by Year/Quarter

GLOBAL EXPRESS XRS Residual Value by Year/Quarter
Current Market (Presented Aug. 2007)
Pre-Owned Prices Versus Intrinsic Value

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<th>Bombardier</th>
<th>Dassault</th>
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<td>Intrinsic Value ($M)</td>
<td>Estimated Purchase Price</td>
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Current Market (Presented Aug. 2007)
Pre-Owned Prices Versus Intrinsic Value

- Gulfstream
  - G-IV SP
- Bombardier
  - CL 604
- Dassault
  - F900EX

Estimated Purchase Price ($M) vs. Intrinsic Value ($M)
I Know This Stuff Can Get a Little Dry... And Probably What You’re Thinking Right About Now...???

• Meee Too!
• I promise to wrap up soon!
Question 1: Should we upgrade our Challenger 601 3R to meet CPDLC, FANS 1/A requirements

Question 2: Where is the threshold ($$) that you stop doing upgrades and how do you substantiate that threshold

Answer:
1. If the aircraft is currently meeting the mission
2. The owner is happy with it
3. There are no other major maintenance considerations
4. If there is not an alternative aircraft with the technology without a major capital outlay
   Then upgrade the aircraft

Commentary: Upon resale expect to recover only 25% of the investment
Try to keep aircraft consistent with others in the fleet
Aircraft Specific Residual Value History

Historic Residual Value – Challenger 601 3R

CHALLENGER 601-3R Residual Value by Year/Quarter

- Percentage of Original Price: 0%, 20%, 40%, 60%, 80%, 100%, 120%
When the internal team has completed it’s analysis and a decision is made for action plan, then:

- Socialize plan
- Narrow choices to top two
- Compete the available choices
- Finalize and execute
Fun Quiz
The Devil’s in the Details

• How many know how old you are?

• How many know how old you are in:
  • Years
  • Months
  • And days

• How many know how old you are in days?

• I’m 24,618 days old today!
Thank you!
Questions?