

Private Bank



# Business Aviation Management and Family Offices

**January 2018**

By: Ford von Weise  
Head, Global Aircraft Finance



As Family Offices increasingly own business aircraft, many Family Office professionals have expressed concerns that they are finding themselves ill-equipped to properly address the oversight challenges and demands that aircraft ownership places on their staff.

For years, the aviation role at Family Offices was typically handled by each family's chief pilot. However, it has become more apparent to a number of our Family Offices clients that the demands, skills and time required to manage aircraft can quickly overwhelm even the most experienced of professional pilots.

This is hardly surprising, as typically Family Offices are staffed by former lawyers, bankers, investment professionals or accountants, not Certified Aviation Managers. Most pilots are trained to have the background and experience to fly aircraft in an increasingly complex environment, not to manage people and processes while overseeing composite budgets, fleet forecasts and complicated aviation tax reporting. Due to increasing international aviation regulations and ever-more complex aircraft, business aviation has become progressively more difficult to manage, requiring substantially more time, different abilities, experience and training.

With respect to business aviation issues, Family Office professionals often ask:

- Have business aircraft really lost significant value?
- Our aircraft is older and the principal is thinking of upgrading – what is our older aircraft worth, how should we handle any required upgrades and when should we contemplate making a transition to a new aircraft?
- Are we required to upgrade or replace our aircraft avionics due to new government regulations? Does it make sense to do so?
- Are we required to adopt all the new safety management systems that seem to require considerable time, effort and follow-up?

Yet during these same conversations, Family Office management rarely discusses two other important areas: the pilot shortage and aircraft management best practices, including management certification and continuing education.

### **The Business Aviation Market**

To an extent, one can argue that the global business aviation market never fully recovered from the 2008 recession. While there were brief months of increased aircraft purchasing – both new and used – and flight activity, every time industry professionals thought the market for both new and used aircraft was improving, the market reached increasingly lower levels. Some of the reasons for this include:

- Supply fundamentally exceeded demand – there were simply too many manufacturers making too many aircraft for too few buyers
- Aircraft manufacturers waited far too long to reduce production in an environment of increasingly lower demand
- Progressively larger unsold new aircraft inventories placed huge burdens on already cash strapped manufacturers, requiring them to sell new aircraft at huge discounts to move them out of inventory and to generate cash
- Dramatically lower prices for newly delivered aircraft had a huge negative ripple effect on values of used aircraft, pushing values much lower with each passing month
- With the bottom for aircraft values nowhere in sight, used aircraft buyers simply stayed away from the market for several years

The cumulative impact of these factors is lower – often significant – aircraft values. As values have continued to fall for several years, the number one question we are asked is, “How much have values fallen and is my aircraft impacted?”

The list of severely impacted aircraft models is long. As an example, from a high point in 2008, VREF<sup>1</sup> shows that a 2006 model year Bombardier Global 5000 fell from \$48 million to

\$13.5 million, which is a stunning 71.8% decline in value over eight and a half years. Further evidence of this can be seen in the 2016 new aircraft delivery data from the General Aviation Manufacturer's Association, showing new aircraft deliveries have fallen to their lowest level since 2004.<sup>2</sup>

Despite the doom and gloom in the business aviation market, there may be light at the end of the tunnel, as recent data are indicating a potential market bottom. As of December 2017, the UBS Jet Index – an indicator of industry health – has shown its fifth straight monthly increase and is firmly above 50, a tipping point for a stable-to-improving market. This may reflect a greater willingness of dealers to increase pre-owned business jet inventory, lower inventory levels of pre-owned jets and improve customer interest. Customer interest and willingness scores are also now at new post-financial-crisis highs.<sup>3</sup>

Given the historically low aircraft values over the past five years, early indications provided by aircraft broker/dealers of values beginning to stabilize and ample aircraft availability as reported by JetNetIQ (NBAA, October 2017), the time may be right for some existing owners who have been considering transitioning to a different aircraft to contemplate upgrading. As values, based on historical trends, may begin to recover, it may be an opportunistic time to upgrade.

### **Should We Buy Now and/or Sell and Buy Bigger?**

Yes. Values have not been lower on an absolute or normalized basis. There are many quality aircraft available today at historically low prices, suggesting that the value proposition has never been stronger.

Will values begin to increase from this low point? Most likely, but no one can tell when. Based on past experience, the best aircraft will go before the less desirable ones. If prices rise in the future, acting now will allow for a better make/model selection.

<sup>1</sup> VREF 2017, Vol. 1 (VREF is an aircraft market valuation guide, published by VREF Publishing, Inc.)

<sup>2</sup> General Aviation Manufacturers Association's 2016 General Aviation Statistical Databook & 2017 Industry Outlook

<sup>3</sup> UBS Business Jet Monthly, October 15, 2017

## Required Avionics Upgrades

Many Family Offices tell us their pilots have approached them about expensive upgrades that have been mandated by the aviation regulatory authorities. However, there is confusion on the topic of whether it makes sense to upgrade avionics or buy a new aircraft, which is already equipped.

There are a number of new requirements, including: FANS, CPDLC, ABS-B IN/Out, VDL Mode 2, SATCOM and TCAS. Here are the basics that Family Offices need to know:

### International and US Domestic Mandated Equipment Upgrades to Operate in Either Class A Airspace (above 18,000') or the North Atlantic Oceanic Airspace (NAT Tracks)<sup>4</sup>

Collectively, these requirements are known as the Future Air Navigation System (FANS)

Mandate	Region	Retrofit Date	Comments
ADS-B Out v2	Europe	7 Dec 2017	
	US	1 Jan 2020	
FANS 1/A+ (includes CPDLC, VDL Mode 2, SATCOM, ADS-C)	North Atlantic Region	7 Dec 2017	35,000' – 39,000'
		30 Jan 2020	29,000' and above
TACS Change 7.1	US	1 Jan 2020	Major upgrade to Traffic Collision Avoidance System (TCAS)

The question we get most often is: How much do these upgrades cost? The answer may be surprising – if you have an older aircraft with avionics that use picture tubes (TV cathode rays), the cost could be quite significant. For example, the cost to upgrade an older Gulfstream GIV-SP is well north of \$1.2 million, according to Gulfstream. Depending on existing avionics, upgrading avionics to become compliant for aircraft less than 10 – 12 years old may cost as low as \$100,000. The cost to upgrade newer aircraft is less, from \$50,000 to \$125,000 for much newer aircraft.

The bigger problem, however, may be finding an opportunity to perform the required upgrades, as many avionics shops are now reporting limited availability to upgrade before the deadlines. Under the circumstances, owners should strongly consider scheduling upgrades now, before the deadlines above create operational issues.

## Safety Management Systems

Over the past five years, the FAA implemented a requirement for commercial Part 135 operators (charter operators) to integrate approved safety management systems (SMS) into their daily operations. This requirement originated from the implementation of common international operating standards initially developed for larger aircraft (above 12,500 lbs). These regulations will shortly be mandatory for private business aviation operations as well.

SMS can save lives and will shortly be required for most operators – even those of small Family Offices, so Family Office management should begin to ensure they meet the requirements.

## The Pilot Shortage

A pilot shortage has had significant impact on the aviation industry. In 2016 alone, one large regional airline was forced to cancel approximately 30% of its flights due to the lack of available crew. As pilots retire, mainline carriers are actively hiring qualified regional pilots, calling back furloughed pilots and hiring from corporate flight departments.

What are the impacts of this shortage for business aviation? We participated in a recent discussion of the shortage with flight department heads from several large well-known corporations, chief pilots for several ultra high net worth individuals and the senior flight operations manager of one of the world's largest aircraft management companies. The following observations were made:

- Business aviation salaries have increased by 25% in the last 18 to 24 months alone in the hiring of new crews
- The number of applicants for every new available pilot position has dramatically decreased from about 50 – 70 to 6 – 15
- The experience levels of pilots has noticeably decreased
- It is an employee market, with prospective pilots demanding – and receiving – determined schedules with planned time off contractually included
- Pilots are picking the clients – not the other way around. Gone are the days of demanding owners who command too much of their flight crews. Difficult owners are inadvertently making their reputations well-known to prospective pilots on several pilot online hiring forums

<sup>4</sup> Business Aviation News, January 2017 and Federal Aviation Administration at <https://www.faa.gov/nextgen/>

- The pilot shortage will only worsen with the inevitable continued increases in pilot salaries, perks and quality of life demands

What are some best practices for Family Offices?

- Work with a well-known pilot staffing company or larger international aircraft management company that uses a pilot pipeline as part of their standard operations
- Compensate pilots according to the market; use a creditable aviation compensation consulting firm to benchmark salaries and total compensation packages
- Employ enough pilots so that quality of life concerns for existing crews don't become a reason or tipping point for them to leave
- Treat crews with respect and afford them the professional recognition they deserve

### Aircraft Management Best Practices – the Next Level

Managing business aircraft has become an increasingly complex endeavor, requiring a broader application of more varied skills and the willingness to accept more responsibilities in the context of an expanded and highly proscribed regulatory environment. The challenges facing aviation directors and chief pilots require more time, energy and openness to implement new ideas, regulatory requirements and best practices, all the while maintaining a high level of professionalism.

This is not an easy task, regardless of experience or training. Managing aviation operations has evolved into a profession itself, distinct from piloting an aircraft. Aviation managers should seriously consider applying to graduate school programs and/or becoming Certified Aviation Managers (CAM). The CAM program is an involved course of study requiring intellectual engagement and significant time commitment. The recognized certificate, CAM, is analogous to the Chartered Financial Analyst (CFA) program in the finance world.

Family office management should consider reaching out to collaborative industry associations, such as the National Business Aviation Association (NBAA), the European Business Aviation Association (EBAA) or the Asian Business Aviation Association (AsBAA) to understand management best practices and how to integrate them successfully into their organization.

It is important that Family Offices understand that business aircraft are now on average much bigger, more complex and dramatically more expensive to buy, operate and fly to vastly more diverse and remote destinations. Not surprisingly, operating safely in this environment requires more highly skilled aviation professionals managing their organizations at higher tempos with more knowledge, professionalism and commitment. Professionals who lead these organizations are not simply “the pilot” anymore – they are executives leading an important component of the Family Office.

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