

# Volume I, Part 8: Dassault Falcon 900 Series

by Anthony Theis

**W**orld Aircraft Sales Magazine's asset evaluation series continues this month with a look at the Falcon 900 Series. As usual, the evaluation is presented in such a way that readers can grasp meaningful, but easy to understand information on its market value history. The goal is to give our readers highly useful applications so they remain informed.

Each featured aircraft is presented with a United States patented graph called JetTrack®. A proprietary program established in 1987, JetTrack® tracks price history, trends and transactions as a simple means to predict the value of your asset.

JetTrack® is broken up into two separate

graphs in order to give you the best logical way of determining prices and trends. The top graph represents a history of true asking prices over a ten year period or since the inception of the aircraft (these prices do not represent new OEM deliveries). The bottom graph represents how many aircraft were for sale at the beginning of the month and how many remained for sale at the end of the month.

The clear picture between the two graphs is a linear understanding of the trends and prices. Since prices correlate with supply and demand, the graphs give you a simple understanding of the peaks and valleys. Not only can you predict the value of your asset, but you'll also know the best time to sell or buy.

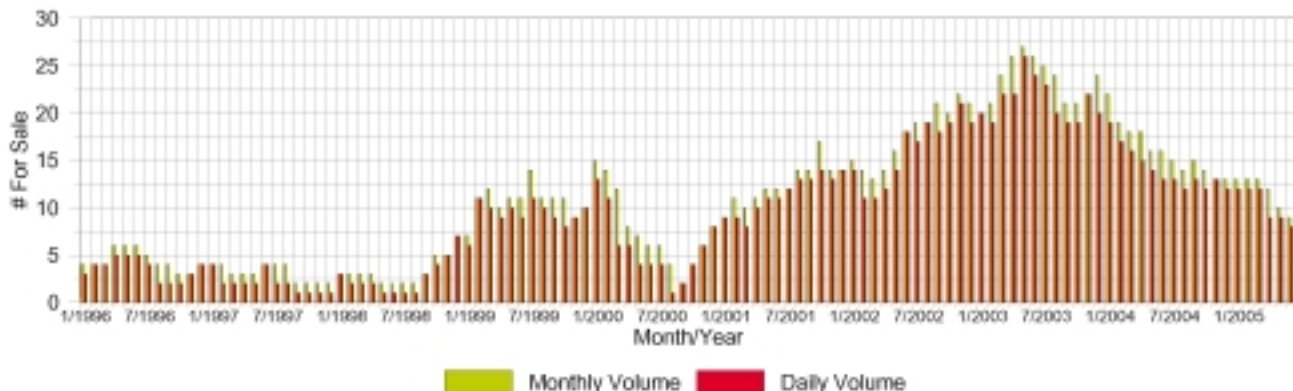
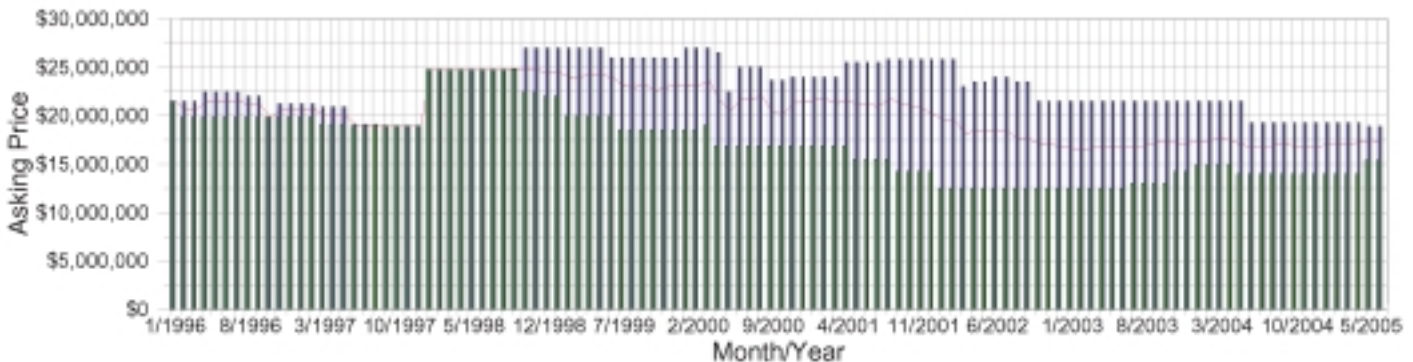
Simple to use and uncomplicated, you stay ahead of the market with the latest pricing information that's precise and accurate. Best of all, you'll see what happened 10 years ago, 5 years ago, and what to expect for the future.

## THE EVOLVING 900 SERIES

Like all Falcons, the Falcon 900 series represents a work of craftsmanship. Built from the highest quality materials, and offering a superb performance, it is no wonder that Dassault still produces this aircraft almost twenty years after introducing it to the market. Bizjet users have enjoyed everything the tri-jet has to offer - including its relative uphold in market value over the years. ➤

## Falcon 900B

(JetTrack® From Central Business Jets, Inc.)



The original Falcon 900, which took its first customer delivery in 1986, was outfitted with TFE731-5 engines. These were later upgraded as standard to TFE731-5BR powerplants from around serial number 100 onwards, which offered an extra 250 lbs of thrust each and a more economic fuel burn rate. To reflect the upgrade, the Falcon 900 was marketed as the 900B. Approximately 90% of Falcon 900s built to date utilize TFE731-5BR powerplants.

Dassault was not a company to rest on its laurels however, and by the early 1990's there was already talk that the plane maker was considering another upgrade to the engines. That speculation proved accurate: Dassault introduced the 900EX, and by 1995 was delivering its new derivative. The 900EX came to market equipped with three TFE731-60 engines, which added a further 250 lbs of thrust per engine, once more improving on the overall performance of the jet.

The 900EX also included a new avionics suite in the Primus 2000; increased fuel capacity; and approximately 2,500 lbs increase in gross weight. Still in production today some 140 airplanes down the line, the Falcon 900EX now comes standard equipped with the Primus Epic flat panel as opposed to the original Primus 2000 avionics suite.

After the 900EX was introduced, and

when Dassault had built 178 Falcon 900/B's, it introduced the "C" variation at serial number 179 in 1999. The only real difference between the Falcon 900B and 900C model was a new avionics suite, the Primus 2000, and an increase in gross weight capacity, offering an additional 1,000 lbs to operators. However, production of the 900C ended in 2004 (just five years later) at serial number 201.

**BUILDING ON SUCCESS**

So why does Dassault continue to build on the same basic design almost 20 years after the introduction of the original Falcon 900? Why does the Falcon 900 series continue to be attractive to present day operators? One could come up with several explanations, but we'll look at two key reasons.

Firstly, think about the engineering costs that will have been saved by the manufacturer not having to re-create a 'clean sheet' airplane design. In many instances, this allows the manufacturer to offer more cost savings to the customer, while freeing the manufacturer to invest money on specific areas to the airplane that really need improvement.

Secondly, by keeping the same basic design, Dassault has been able to accumulate nearly 20 years of improvements in performance and avionics that operators have

requested. So long as you can improve its abilities in areas that customers want changed, you keep the product relevant and competitive in its evolving market niche, thus there is no need to drastically change the original concept.

With this established, let's take a look at the market value of the Falcon 900B/C/EX family over time.

**THE FALCON 900 MARKET**

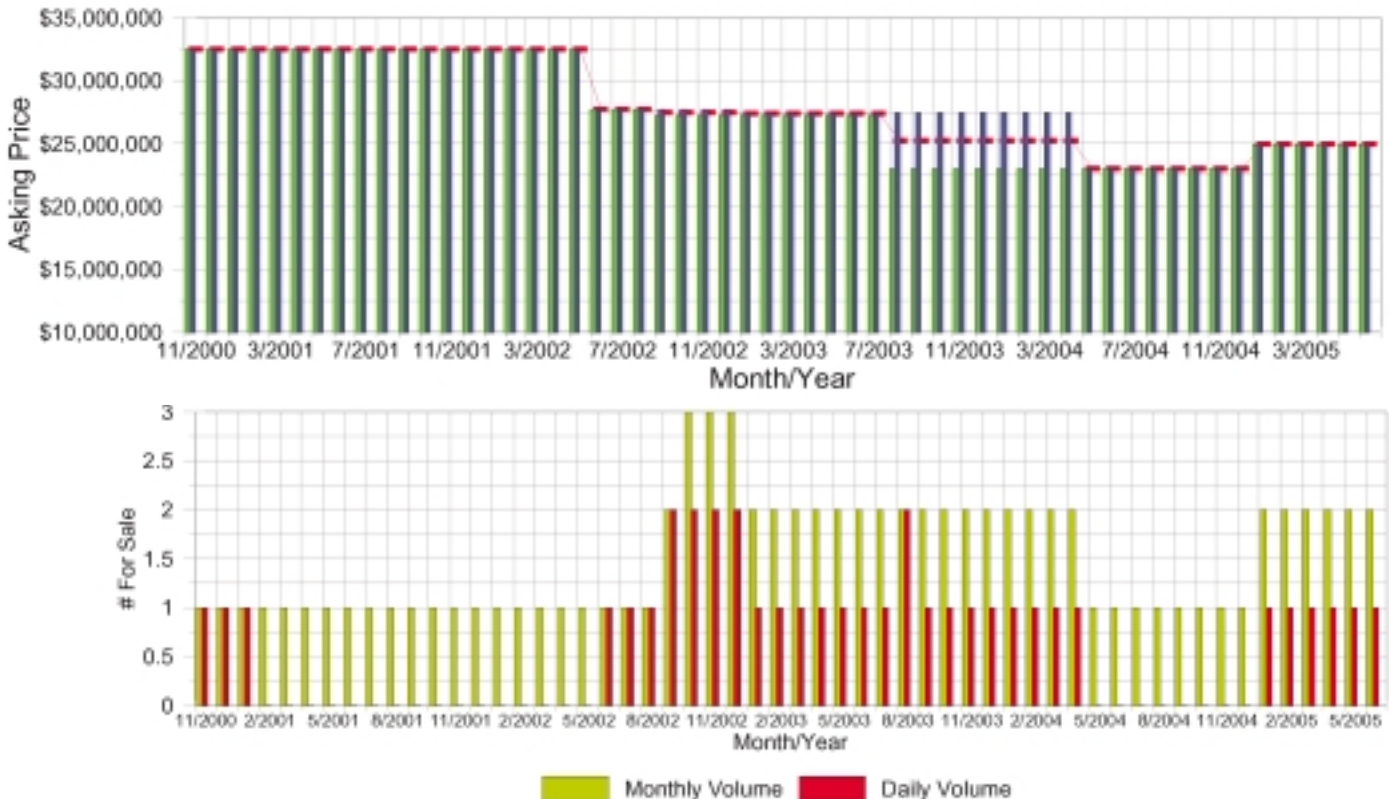
Since the rollout of the Falcon 900EX a decade ago, this aircraft holds command and drives prices for the rest of the family. A grasp on the differences between the Falcon series line, and their affect on each other and the competition is important here.

During the middle of 2003, the Falcon 900 series saw its lowest level of value in its entire history, which was the case for many other aircraft. In no way was it due to the airplane itself. The average asking price for a 900EX dipped in the middle of 2003 to \$25m (from around \$27-28m months earlier). This was in spite of a monthly average total of just six 900EXs for sale (5% of the entire fleet).

Later that period, the 'C' model saw a similar trend occur, with average prices dropping to \$22m around the end of 2003 and a monthly average of just two airplanes for sale. The 900Bs, meantime, were impacted

**Falcon 900C**

(JetTrack® From Central Business Jets, Inc.)



the worst, with average prices dropping down around \$17m and a monthly average of 27 for sale representing 15% of the fleet. We apply a simple rule here that once you're pushing past 10% of the fleet for sale, you're on your way to a market that is about to hit bottom or go flat.

It's interesting to note that although there was a large supply of 900Bs available during 2003, they didn't see an abrupt change in price in the same way the 900EX did. Part of the reason for this may have been the availability of Gulfstream IVSP's at a lesser price during the same time period. During 2003, the average GIVSP price was \$21m, almost a \$4m difference compared with the 900EX. Consequently, the market was set for the entire line of Falcon 900's during that

time period, remembering the 900EX is the family 'price driver'.

This is evidently not the case today. There were an average three 900EXs on the market daily on our latest mid-2005 reading (just half the supply of 2003) with average prices hitting close to \$29m. With just one 900C model currently available daily during each month, the supply of the 900Bs has diminished to an average of less than ten for sale daily, while prices for both have remained fairly consistent to mid-2003 prices.

In concluding this Asset Evaluation, we again draw in the Falcon 900EX's main competitor, the GIV-SP (now upgraded as the G450), which offers a real tough match for the 900EX. Both are equipped with the Primus Epic avionics suite and display simi-

lar cabin floorplans with three seating areas. In the past, choosing between these two models essentially came down to the buyer's mission needs, price, and maybe even the big windows offered by the GIV-SP!

Today, more thorough investigation is needed to choose what works best for the owner - such as the different options available to each aircraft, fuel burn consideration, the high cost of fuel, and the latest in technology.

The two airplanes are without a doubt competitively priced, but drawing up some comparisons and mission profiles will get you started in the right direction. Below is a table containing some basic comparisons.

> More information from Central Business Jets, Inc; Tel: +1 952.894.8559; Website: www.cbjets.com

## BASIC COMPARISONS TABLE:

	RANGE (AT AVERAGE CRUISE SPEEDS)	SPEED (KTAS)	CABIN VOLUME(CUBIC FT)	MAX. ALTITUDE	AVERAGE FUEL BURN(GAL/HR)	D.O.C(USD)
DA900B	3,800	460	1267	51,000	335	\$1,870
DA900C	3,800	460	1267	51,000	335	\$1,870
DA900EX	4,400	470	1267	51,000	355	\$1,820
G450	4,200	470	1525	45,000	470	\$2,100

1. The average D.O.C uses \$2.50 USD /gal.

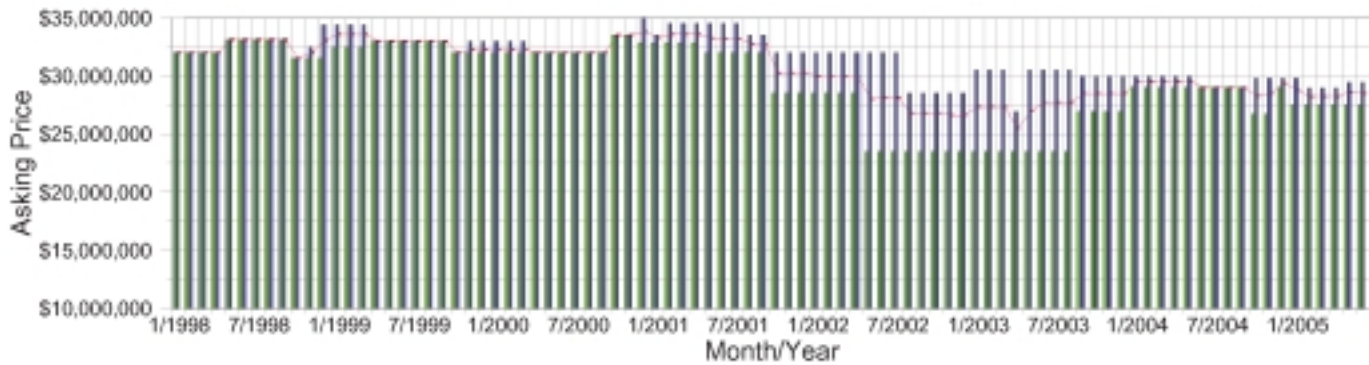
2. Range is calculated using max fuel on board with IFR reserves.

3. Total D.O.C costs are derived from operator feedback and include airframe & engine inspections, life limited components, fuel burns, engine, APU, and avionics reserves.

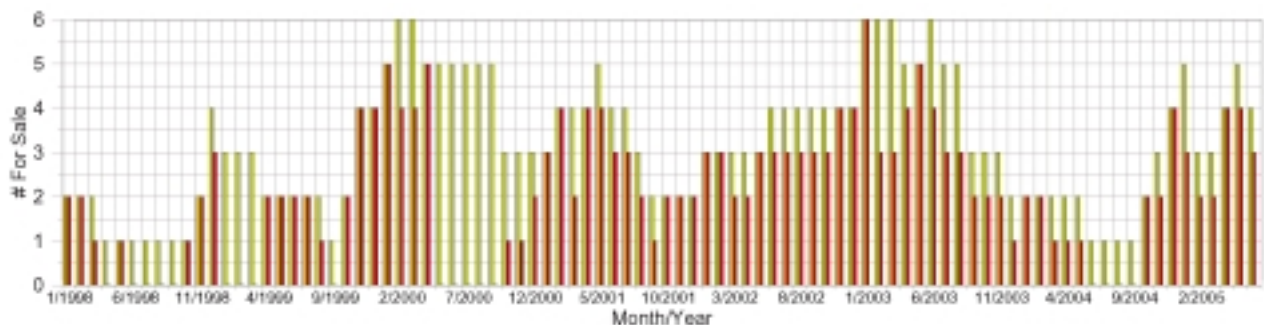
Source: Central Business Jets JETCOST®REPORT

## Falcon 900EX

(JetTrack® From Central Business Jets, Inc.)



— Average    ■ Minimum    ■ Maximum



■ Monthly Volume    ■ Daily Volume