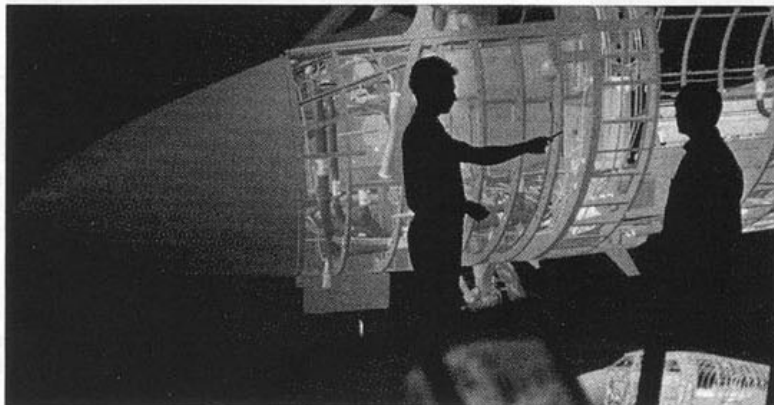


THE WORLD MARKET FOR BUSINESS JETS



"ANNUAL BUSINESS JET production declined for the second year in a row in 2002, after increasing steadily for nine consecutive years. The business jet market is suffering through a difficult time. Order activity has dwindled, and several manufacturers have slashed production rates. Two, in fact, recently instituted temporary and limited production furloughs: Gulfstream in mid-2003 and Bombardier (for certain models) in late 2002," underlines Forecast International/DMS in its new ten-year business jet market analysis and forecast.

With headquarters in Newtown, CT, Forecast International/DMS is a privately owned research and publishing firm, founded in 1973. It is recognized as a leading provider of market intelligence, proprietary research and consulting for the aerospace, defense, electronics and power systems industries, and is expanding to other high-tech industries.

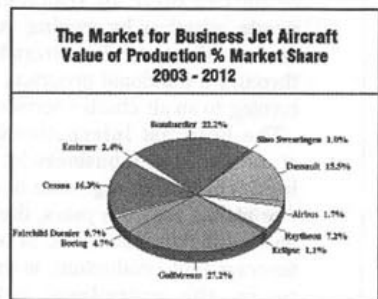
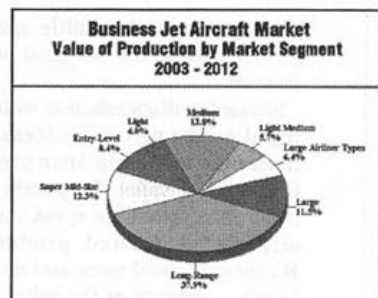
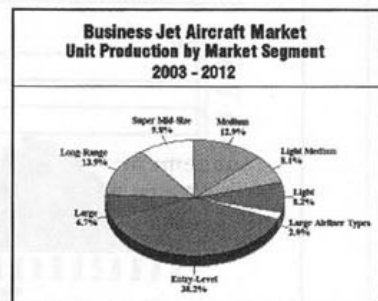
According to their analysis, even fractional ownership programs, which spurred much of the growth in the business jet market in the late 1990s, are suffering. Many of those programs lost money in 2002. The fractionals are continuing to grow during the present downturn, but their growth has slowed somewhat. In addition, aircraft orders placed by the fractionals have dropped significantly.

Fragile economic conditions and stagnant or declining corporate profits are taking their toll on the business jet market. Recent scandals have placed a media spotlight on corporate accounting practices as well as executive use of company aircraft. Other factors that can and do hurt the market include increased jet fuel prices, limitations on airport access and local noise restrictions.

Environmental restrictions such as noise regulations and airport capacity constraints weigh heavily on business aircraft operators. These restrictions potentially could significantly reduce the number of airports accessible to many aircraft, thereby reducing the overall market potential for new sales. In addition, various tax and regulatory issues also loom on the horizon that could negatively impact the growth of business aviation.

The Good News. All is not gloom, however, and an optimistic outlook regarding the market of the next ten years can certainly be justified. The business jet industry does appear to be well positioned to ride out the current storm.

While they are declining, order backlogs are still healthy, including those for several new models that are currently in development. The fact that the fractionals continue to grow even during the present market

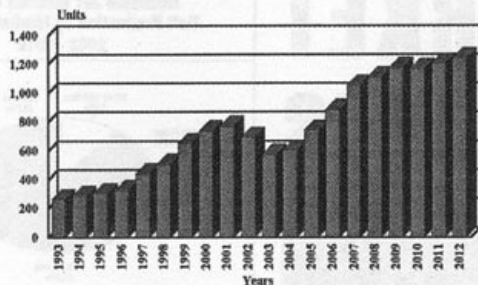


downturn is also a positive sign. Aircraft destined for the fractionals currently account for approximately 15-16 percent of annual business jet production, and this percentage can be expected to rise during the next ten years.

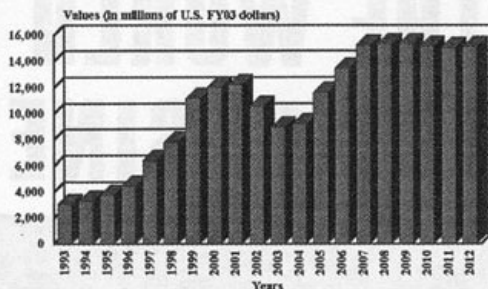
The potential market represented by the fractional programs remains considerable. In addition, other alternatives to in-house corporate flight departments, such as air charter ser-

Future.
The good news is that several new models are currently in development such as the Falcon 7X (Dassault's virtual reality center illustrated here).

Business Jet Aircraft Market Historical and Forecast Unit Production 1993 - 2012



Business Jet Aircraft Market Historical and Forecast Value of Production 1993 - 2012



ices or corporate shuttle operators, further expand the potential business jet market.

Increasing dissatisfaction with airline travel on the part of business executives may also help spur growth in business jet sales. Corporate executives often view time spent waiting at airports as wasted productivity. Businesses could more and more turn to private aircraft as the solution to all or part of their air transportation needs, whether by owning such aircraft outright, owning aircraft jointly through a fractional program, and/or turning to an air charter service.

The Forecast International/DMS study divides the business jet market into eight market segments or classes. During the next ten years, the largest and most dynamic class, in terms of forecast unit production, is expected to be the entry-level category. Included in this class are such business jets as the Cessna CJ1/2/3, the Raytheon Premier I, and the Sino Swearingen SJ30-2. Also included in this class, however, are new personal jets such as the Cessna Mustang and the Eclipse 500. It is these two aircraft that are expected to provide much of the growth in the entry-level category during the forecast time period.

Personal jets are often defined by many as being outside the business jet market. However, an evaluation of the market would seem to be incomplete without considering them. They compete, directly and/or indirectly, for sales with the other jets in the entry-level and even light jet classes. They will be a critical factor in the business jet market during the next ten years. They may also expand the scope of the current market by drawing in many air taxi services that do not currently fly business jet types.

Over the past year or so, the market has seen various efforts by business jet manufacturers to revitalize sales through the re-branding of all or part of their product lines. This was sometimes done in conjunction with the launch of new models. In general, the success of such re-branding strategies remains to be seen.

Five companies currently dominate the business jet market: Bombardier, Cessna, Dassault, Gulfstream, and Raytheon. During the next ten years, they will be joined by a sixth company, Eclipse Aviation, solely on the strength of that company's lone aircraft, the Eclipse 500. A total of 1,376 Eclipse 500s are forecast to be produced in the forecast time period, enough for third place among business jet manufacturers in unit production for the forecast timeframe.

The Forecast. According to Forecast International/DMS forecast, a total of 9,769 business jets, worth an estimated \$135.4 billion, will be produced from 2003 through 2012. This compares with 4,999 business jets produced during the previous ten years (1993-2002).

The market leader in unit production during the 2003-2012 forecast time period is expected to be Cessna, with 3,101 aircraft produced, representing a market share of 31.7 percent. Cessna will be followed by Bombardier (1,732 aircraft; 17.7 percent), Eclipse (1,376; 14.1 percent), Gulfstream (1,171; 12.0 percent), Raytheon (960; 9.8 percent), and Dassault (728; 7.5 percent).

When the market is measured in US dollars, Gulfstream is expected to be number one, with production worth \$36.6 billion, a 27.2 percent market share. The Savannah-based company will be followed by Bombardier (\$29.9 billion; 22.2 percent), Cessna (\$21.9 billion; 16.3 percent), Dassault (\$20.8 bil-

lion; 15.5 percent), Raytheon (\$9.6 billion; 7.2 percent), and Boeing (\$6.4 billion; 4.7 percent). Eclipse drops out of the top six when the market is calibrated in dollars, due to the low unit price of its aircraft.

As can be seen by Boeing's appearance in the above list, the Chicago-based company is making a foray into the business jet market. Boeing currently produces two business jet versions of its 737 narrowbody airliner, and is considering development of a third. It has also announced a corporate shuttle version of its 717-200 regional aircraft.

Boeing's competitor in the large commercial transport market, Airbus, is competing in the business aviation arena with a corporate jet version of its A319 narrowbody. The European company is also considering the launch of a corporate jet version of its A321.

Regional aircraft manufacturer Embraer currently builds the Legacy business jet, which is a derivative of the company's ERJ 135 airliner. The Legacy is marketed in both executive and corporate shuttle configurations.

Meanwhile, the Envoy 3 appears to have survived the financial struggles of Fairchild Dornier. This aircraft is a business jet version of the 328JET regional aircraft. The US company Avcraft Aviation has acquired the 328JET and Envoy 3 programs from ailing Fairchild Dornier and intends to resume production of both aircraft. Avcraft also plans to rename itself Fairchild Dornier.

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