

ARCHIVED REPORT

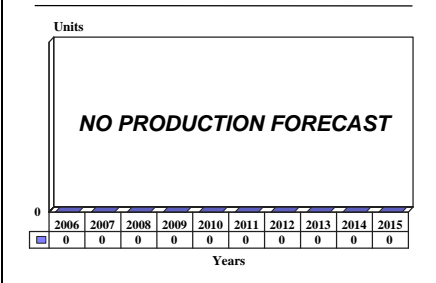
For data and forecasts on current programs please visit
www.forecastinternational.com or call +1 203.426.0800

Safire Jet - Archived 7/2007

Outlook

- No forecast is issued, pending further developments
- The status of the program is presently not clear

10 Year Unit Production Forecast 2006 - 2015



Orientation

Description. Twin-turbofan-powered, six-place business/personal jet aircraft.

Sponsor. The Safire Jet is sponsored by Safire Aircraft Co.

Status. Development

Total Produced. Not applicable.

Application. Business/executive aircraft; personal transport; air taxi/air limousine; flight training.

Price Range. Current price of the Safire Jet is \$1.395 million in 2003 U.S. dollars. Following first flight, the price may increase to \$1.495 million.



SAFIRE S-26

Source: Safire Aircraft Co.

Safire Jet

Contractors

Prime

Safire Aircraft Co	http://www.safireaircraft.com , Miami, FL United States, Prime
---------------------------	--

Subcontractor

Apex Engineering International LLC	http://www.aeillc.com , 1234 Wellington Place, Wichita, KS 67203 United States, Tel: + 1 (316) 262-1494, Fax: + 1 (316) 262-8659, Email: AEI@aeillc.com (Wing; Empennage; Engine Nacelle)
Avidyne Corp	http://www.avidyne.com , 55 Old Bedford Rd, Lincoln, MA 01773 United States, Tel: + 1 (781) 402-7585, Fax: + 1 (781) 402-7599, Email: info@avidyne.com (FlightMax Entegra Integrated Flight Deck)
Kollsman Inc	http://www.kollsman.com , 220 Daniel Webster Hwy, Merrimack, NH 03054 United States, Tel: + 1 (603) 889-2500, Fax: + 1 (603) 889-7966 (Cabin Pressurization System)
Lee Aerospace Inc	http://www.leeaerospace.com , 9323 E 34th St N, Wichita, KS 67226-2621 United States, Tel: + 1 (800) 379-6840, Fax: + 1 (316) 636-9256 (Transparencies)
Metalcraft Technologies Inc	http://www.metalcraft.net , 498 N 2774 W, Cedar City, UT 84720 United States, Tel: + 1 (435) 586-3871, Fax: + 1 (435) 586-0289 (Fuselage)
Williams International	http://www.williams-int.com , 2280 E. West Maple Rd, PO Box 200, Walled Lake, MI 48390 United States, Tel: + 1 (248) 624-5200, Fax: + 1 (248) 669-0040 (FJ33-4 Turbofan Engine)
<p>For more information on Contractors can be found in Forecast International's "International Contractors" series. For a detailed description, go to www.forecastinternational.com (see Products & Samples/Governments & Industries) or call + 1 (203) 426-0800.</p> <p>We are invited to submit updated information to Editor, International Contractors, Forecast International, 22 Commerce Road, Newtown, CT 06470, USA; rich.pettibone@forecast1.com</p>	

Technical Data

Design Features. The fuselage is constructed primarily of aluminum alloy materials consisting of frames and stringers. The wing is low-mounted, and is a three-spar design incorporating an integral fuel tank. The empennage is a cruciform design. The horizontal stabilizer is a fixed design with two elevators. Pitch trim is provided by trim tabs. Yaw trim is provided by a trim tab mounted on the rudder.

Twin turbofan engines are mounted in nacelles on the aft fuselage. The cabin is air-conditioned, and includes a lavatory and a baggage area. The aircraft is equipped with Avidyne's FlightMax Entegra integrated flight deck. Landing gear is retractable tricycle type, with a single wheel on each unit. Dual pilot controls are standard, though the aircraft can be flown by a single pilot.

	<u>Metric</u>	<u>U.S.</u>
Dimensions		
Length	11.06 m	36.30 ft
Height	4.57 m	15.0 ft
Wingspan	12.01 m	39.40 ft
Cabin length	4.24 m	13.90 ft
Cabin width	1.44 m	4.71 ft
Cabin height	1.40 m	4.58 ft
Weight		
Maximum takeoff weight	2,835 kg	6,250 lb
Useful load	1,113 kg	2,455 lb

Safire Jet

	<u>Metric</u>	<u>U.S.</u>
Maximum payload	635 kg	1,400 lb
Performance		
Maximum cruise speed	704 kmph	380 kt
Maximum operating altitude	12,500 m	41,000 ft
Takeoff/landing distance (SL, ISA)	760 m	2,500 ft
Twin-engine climb rate (MTOW)	884 m/min	2,900 ft/min
Single-engine climb rate (MTOW)	268 m/min	880 ft/min
Maximum range (45-min reserves)	2,407 km	1,300 nm

Propulsion

Safire Jet (2) Williams International FJ33-4A11 turbofan engines rated 5.0 kN (1,100 lbst) each.

Seating

Six seats, including pilot(s).

Program Review

Background. Safire Aircraft Company was established in 1998. Originally based in West Palm Beach, Florida, the company moved in 2003 to Opa Locka Airport in Miami.

In early 1999, Safire unveiled its concept for a new light business jet, or personal jet, called the S-26. The S-26 design was a six-place, composite aircraft. It was to be powered by a pair of 700-lbst Williams FJX-2 turbofan engines.

The S-26 was initially priced at \$800,000. Certification and initial deliveries were targeted for 2003.

In 2000, Safire changed the engine on the S-26 after Williams signed an exclusive agreement with Safire competitor Eclipse Aviation to use the FJX-2 on that company's new Eclipse 500 personal jet. The deal effectively tied up the FJX-2 for a number of years. The new engine selected by Safire to power the S-26 was the 800-lbst TF800 turbofan engine, which was being developed by West Palm Beach-based Agilis Engines. Agilis had been established in 1993 by former employees of Pratt & Whitney. In 2001, Safire switched the S-26 powerplant to another Agilis engine, the 1,000-lbst TF1000.

In February 2003, however, Safire announced a new engine selection for its aircraft product. The company chose the 1,100-lbst Williams FJ33-4.

S-26 Design Scrapped in Favor of Safire Jet

In April 2003, Safire announced that the S-26 design had been scrapped and replaced with a new, larger, all-metal design called the Safire Jet. The new aircraft is to be powered by the FJ33-4. According to Safire, the engine change necessitated an increase in the structural weight of the aircraft as well as other changes.

Safire plans to build two flying prototypes, one static test article, and one fatigue test article. Construction of the initial prototype began in June 2003. In December 2003, Safire announced that wind tunnel testing had validated the aircraft design. The tests were conducted on a one-fifth-scale model of the Safire Jet at the University of Washington Aeronautical Laboratory's Kirsten Wind Tunnel.

In January 2004, Safire applied to the U.S. Federal Aviation Administration (FAA) for a type certificate for the Safire Jet. The aircraft is to be certified to the requirements of FAR Part 23 (Normal Category), including day, night, VFR, IFR, single-pilot operation, flight into known icing conditions, and RVSM. Safire also intends to pursue European Aviation Safety Agency (EASA) certification of the aircraft.

The Safire Jet has a larger cabin than the S-26. In addition, it offers a 50-knot speed increase and an increase in NBAA IFR range.

Safire Jet

Safire had garnered more than 720 deposits for the S-26 by the time the company had dropped that design in favor of the new Safire Jet. Safire offered existing depositors the new aircraft at a price of \$1.295 million. These depositors could also retain their original delivery position. The aircraft is currently being sold to new customers for \$1.395 million. Safire may increase the aircraft price to \$1.495 million following first flight.

Temporary Suspension of Operations Announced

In June 2004, Safire announced a temporary suspension of most of its operations while it pursued additional

funding. A potential deal with investors from Switzerland and the United Arab Emirates collapsed in early August 2004. However, less than two months later, an Italian investment group surfaced that made a conditional commitment to fund the Safire Jet program into the manufacturing phase (see the **Forecast Rationale** below).

As of May 2004, Safire had garnered approximately 400 commitments for the Safire Jet. This total included 31 firm orders, a number that was still valid as of August 2004. The current status of the order book is not known.

Funding

An unidentified Italian investment group made a conditional commitment in September 2004 to fund the Safire Jet program into the manufacturing phase.

Timetable

<u>Month</u>	<u>Year</u>	<u>Major Development</u>
Sep	1998	Safire Aircraft Co established
Early	1999	Safire unveils S-26 concept
Apr	2003	S-26 replaced with new Safire Jet design
Jun	2003	Fabrication of initial prototype begun

Forecast Rationale

At the present time, the exact status of the Safire Jet program is not clear. Safire Aircraft had recently been attempting to revive development of the aircraft with funding from an Italian investment group. This group, whose identity was not disclosed, committed in 2004 to fund the Safire Jet program into the manufacturing phase. The commitment, though, was conditional on development milestones being met on schedule. The deal received approval from the U.S. Department of Homeland Security in January 2005. Such approval was required under post-9/11 U.S. regulations.

There has been little news regarding the Safire Jet program since early 2005, and it is unclear whether Safire Aircraft has received the cash infusion needed to bring the aircraft into production.

Safire and the investment group did agree on a development timetable, though target dates for first flight and certification were not released. The investment group selected Opa Locka as the assembly site for the Safire Jet, as it had other business interests in the state of Florida.

Competes in VLJ Class

The Safire Jet is a potential member of the promising, though increasingly crowded, Very Light Jet (VLJ) market. Safire Jet sales competition comes from such aircraft as the Adam A700, the Cessna Mustang, the Eclipse 500, and the Embraer Phenom 100. The recent travails of the Safire Jet, however, have caused the program to lose much of the momentum that it once had in the market.

This is unfortunate, because the Safire Jet design stacks up well against its competition in the VLJ class, particularly in terms of performance and cabin size. Should the program go forward, though, Safire will likely have the burden of combating any negative market perceptions of either itself or its product that may have resulted from the company's recent woes.

Pending further news, we are not currently issuing a production forecast for the Safire Jet.

Ten-Year Outlook

No forecast.

* * *