



Personal Jets

This is a brand-new sector of the Very Light Jet market with aircraft specifically designed for the owner-pilots who want to go about their business at speed. All of the aircraft in this sector are still emerging from the drawing board into pre-certification testing. Others are expected to join during 2007 with Cirrus among the likely contenders. The size of the market is still undetermined.

- The Javelin epitomises the “big boy’s toys” concept – a personal business jet that doubles as a fighter aircraft trainer.
Artist: Tekura Maeva
© Tekura Maeva

IN
DEVELOPMENT

ATG JAVELIN



SPOTTER'S GUIDE

The Javelin is a personal jet with fighter jet styling. It features twin tails and with short stubby wings bears a resemblance to a shrunk hybrid F/A18 Hornet and the F-5 Freedom Fighter. The air intakes for the two engines are mounted at and just in front of the wing root. The cockpit has one large aft hinged canopy.

SPECIFICATION

Length	37'	11.28m
Wingspan	25' 1"	7.65m
Height	10' 6"	3.20m
Cabin Length	10' 8"	3.26m
Cabin Width	2' 11"	0.89m
Cabin Height	4' 6"	1.38m
Max Range (2)	1,000nm	2,223km
Max Seating	1 + 1	
Typical Seating	1 + 1	
Powerplant	2x Williams FJ33-4A-18M	1,800lb / 8.01kN each
Avionics	Op Technologies	
Max Cruise Speed	M 0.87	500ktas/926km/h
Max Ceiling	45,000ft	13,716m
Rate of Climb	9,000fpm	2,743mpm
Take off Distance	3,200ft	975m
Landing Distance	4,000ft	1,219m
MTOW	6,900lbs	3,130kg
Max Landing Weight	6,900lbs	2,812kg
Useful load	2,245lbs	1,018kg
Payload with full fuel	370lbs	167kg
Price	\$2.795-2.995m	€2.18-2.34m

Personal Jets



THE Javelin is an all new type of personal jet which is scheduled to certify in 2008. It seats two in a tandem configuration and features a three screen 5 x 7 inch avionics package from Op Technologies. Recently the cockpit underwent some changes to incorporate a centre stick over the original side stick and the canopy sills have been lowered by 4" (10cm) to increase pilot look-down visibility.

It is powered by dual Williams FJ33-4A-18M turbopfans with 1,800lbs (8.01kN) of thrust each and capable of cruising at a maximum of 500ktas (926km/h).

Although it is a small aircraft it is still capable of a 1,000nm IFR range and a ceiling of 45,000ft.

The Javelin certainly redefines the term 'Personal Jet' and is superbly suited to the inner child of every civil pilot and the boyish dreams of recreating Top Gun – yet it is still able to operate as a two seat transport.

Production models will feature pressurization, thereby no need for the G-suit or the bone dome!

HERITAGE

The Javelin is an all new design from Aviation Technology Group and will be available as the Mk 10 civil version and the Mk 20 military trainer. The military version is being developed in collaboration with Israel Aircraft Industries. The Javelin first flew on 30 September 2005.



**IN
DEVELOPMENT**

DIAMOND AIRCRAFT D-JET



SPOTTER'S GUIDE

The D-Jet has straight wings with angular winglets. Distinctive by the air inlets for the single Williams F33 engine at the root of the wing beneath the three cabin windows on each side. There is a tall swept tail with a high mounted tail fin.

SPECIFICATION

Length	35' 1"	10.70m
Wingspan	37' 6"	11.43m
Height	11' 7"	3.53m
Cabin Length		
Cabin Width	4' 7"	1.42m
Cabin Height	4' 8"	1.44m
Max Range	1,351nm	2,502km
Max Seating	2 + 3	
Typical Seating	2 + 3	
Powerplant	1x Williams FJ33-4A	1,570lb
Max Cruise Speed	315ktas	583km/h
Max Ceiling	25,000ft	7,620m
Rate of Climb		
Take off Distance	2,034ft	620m
Landing Distance		
MTOW	5,071lbs	2,300kg
Max Landing Weight		
Useful load	2,245lbs	1,018kg
Payload with full fuel	505lbs	229kg
Price	\$1.38m	€1.08m

Personal Jets



AUSTRIAN manufacturer Diamond Aircraft is developing a personal jet aimed at the businessman or high net worth individual who wants to be pilot as well as passenger.

D-JET has been optimised for flight at lower altitudes. The seating configuration is 2 + 3, with an internal baggage compartment aft of the three seat bench. A fairly spacious of the cabin allows the use of control yokes that offer lower control forces than unboosted sidestick control systems and allows equally convenient operation, from either pilot seat.

The D-JET is powered by the Williams FJ-33 fanjet engine. This fully certified engine is a scaled derivative of the popular and proven FJ44 that is in most modern light business jets. It features the FJ44's FADEC (Full Authority Digital Engine Control) which offers improved operation, reliability, efficiency, and maintenance.

Additional baggage can be carried in the

forward and aft unpressurised baggage compartments, including full size golf bags.

Preliminary specifications of the D-Jet, which comes standard with a three-screen Garmin G1000 avionics system, include a 5,071-pound mtow, 315-knot max cruise speed, 25,000-foot ceiling and a 1,351-nm range. Diamond claims orders for some 125 of the aircraft which they are pricing at \$1.35 million.

HERITAGE

The Diamond D-Jet (S/N 001) single-engine very light jet flew has its first flight on April 18 in Ontario, Canada, home of Diamond's North American division. The aircraft was then shown at Oshkosh in July. Certification is due late in 2007

The company plans to deliver 50 aircraft before the end of 2008, ramping up to a production rate of 1 aircraft per day by late 2009. Diamond has successfully produced single and twin-engine propeller aircraft for many years with leading edge technology using proven composite airframe materials.

**IN
DEVELOPMENT**

EXCEL-JET SPORT-JET



HERITAGE

The Sport-Jet is an all new single engine personal jet. It flew on 11 May 2006 for the first time and FAR 23 certification with the FAA is targeted for May 2008. It is primarily an owner/operator jet.

SPECIFICATION

Length	30'	9.14m
Wingspan	33' 2"	10.12m
Height	8' 2"	2.50m
Cabin Length	7' 11"	2.41m
Cabin Width	4' 11"	1.49m
Cabin Height	3' 11"	1.19m
Cabin Volume	113 cu.ft	3.2m ³
Max Range	1,000nm	1,852km
Max Seating	1 + 4	
Typical Seating	1 + 4	
Powerplant	1x Williams FJ33-4A	1,570lb/6.98kN
Max Cruise Speed	375ktas	694km/h
Max Ceiling	25,000ft	7,620m
Rate of Climb	2,500fpm	762mpm
Take off Distance	2,300ft	701m
Landing Distance	1,800ft	548m
MTOW	4,900lbs	2,222kg
Max Landing Weight	4,400lbs	1,995kg
Useful load	2,100lbs	952kg
Payload with full fuel	693lbs	314kg
Price	\$1.1m TBD	€0.86m

Personal Jets



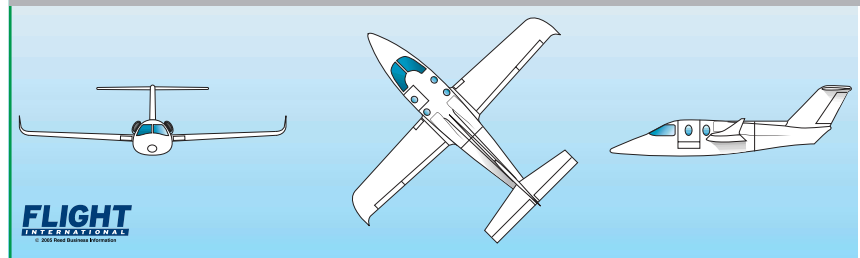
HAVING completed its first flight earlier this year the program was in doubt after the proof-of-concept prototype crashed after take off in June – Excel-Jet believes wake turbulence was to blame. This did not upset the development progress and this was restarted in July. Excel-Jet stated the proof-of-concept had completed 95% of the envelope testing that it was planned to do. There were no fatal injuries, Excel-Jet say this is because of the carbon fibre roll cage built into the fuselage.

A single fuselage mounted Williams

FJ33-4A with 1,570lbs (6.98kN) will power the Sport-Jet to a maximum cruise speed of 375ktas (694km/h). Excel-Jet from the onset have collaborated with insurance companies to try and ensure that the Sport-Jet can be used by general aviation users too, and such have limited the ceiling to 25,000ft (7,620m).

The Sport-Jet will be able to lift a useful load of 2,100lbs (952kg) and have an IFR range of 1,000nm (1,852km). It will seat a maximum of four passengers and will operate with a single pilot and for \$1.1m (€0.86m) has a relatively spacious cabin.

SPOTTER'S GUIDE



The Sport-Jet has a single engine mounted in the back of the fuselage and features two air intakes on the fuselage which start behind the passenger cabin. The main gear retracts into the wing which is mid-mounted. It has two passenger windows each side and a T-tail.