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Corporate India may prefer cheaper Very Light Jets

They're small, sleek, sexy and so-o-o-o much cheaper. Industry experts predict that the Indian market will opt for VLJs rather than corporate jets. Ashwin Tombat reports

If you can afford a Maybach (\$885,000, Rs 3.50 crore) to drive around in, surely you can also afford a Very Light Jet (VLJ) to fly around in. This new family of four-to-six seater planes will soon be available starting at just under \$1.50 million (Rs6 crore). A VLJ costs less than one-third of a standard corporate jet, which would be very expensive to buy, even for a large corporate house.

They have low operating costs too; a VLJ could fly Mumbai-Delhi for just Rs36,000. In comparison, a single business class or first class seat on a commercial airline could cost as much as Rs14,000. Just as it sometimes works out to as much or cheaper for a family of four to take a taxi rather than a bus, VLJs may make private flying cost effective, compared to its commercial cousin.

What is a VLJ?

Previously known as a microjet, a VLJ is a small jet aircraft approved for single-pilot operation that seats four-to-eight people, with a maximum take-off weight of less than 4,500 kg. They are lighter than what is commonly termed as a business jet.

In the United States, the National Aeronautics and Space Administration (NASA) and the Federal Aviation Administration (FAA) have encouraged their development, as they foresee wide use of VLJs in point-to-point air taxi services.

They would provide air service to areas ignored by airlines. VLJs not only have lower operating costs than conventional jets, but are able to operate from runways as short as 3,000 feet (900 m). A number of designs are currently in development.

Who makes them?

International companies like US-based Epic Aircraft (in which Vijay 'Kingfisher' Mallya recently picked up a 50 per cent stake), Eclipse Aviation, Embraer, Cessna, HondaJet, Adam Aircraft and Diamond Jet manufacture or are in the process of manufacturing VLJs. And they are all looking at the Indian market.

'On-demand' air taxi services depend on low cost projections and high demand. Their viability has been the subject of much debate among industry experts. Some pundits believe that the VLJ may turn out to be one of the greatest disappointments of the aviation industry, owing to the economic infeasibility of large-scale air-taxi operations.

Who wants to buy them?

But there's no shortage of people who think the opposite. The Centre for Asia Pacific Aviation (CAPA) has done a survey of the market size for VLJs in India, which estimates a market for a staggering 1,000 small jets over the next two years. At the price range and operating costs, many in the aviation industry believe they have a tremendous potential. The cost of operations will make them seem like a taxi in the air.

JetBird AG ('JetBird' or the 'Company'), the first Pan-European, low cost executive jet taxi operator, today welcomed the completion and first flight of the second Phenom 100 Very Light Jet (VLJ), at Embraer's production plant in São José dos Campos, Brazil.

Even abroad, air taxi services are gearing up for the VLJ production lines. JetBird, for example, is on course to become Europe's first true low cost private jet airline, offering a private jet experience at up to 50 per cent less than the present branded operators. It plans to commence operations in April 2009, and is closely following the progress of Embraer's Phenom 100 VLJ, which it intends to make its primary air-taxi vehicle.

Will they succeed in India?

In India, the big problem is going to be infrastructure. Airports in India's metros are already straining at the seams. And while these aircraft will probably fly to small towns, they will be stationed at the metros, where India Inc is based. A four-seater VLJ takes the same amount of time on the runway and taxiway as a 180-seater passenger aircraft, and Indian airports aren't going to be terribly enthusiastic about allowing 1,000 of these little planes to clog up their runways.

Altogether, over 3,000 VLJs have been ordered from three manufacturers. Cessna Aircraft Company, based in Wichita, Kansas, delivered the first ever production VLJ, its six-seater Citation Mustang, to the Mustang Management Group of Fresno, California on 23 November 2006. Cessna has over 300 orders for the Mustang, which received full certification for the Mustang on 8 September, 2006, FAA certification to fly into "known icing conditions" on 9 November 2006, and its FAA production certificate on 23 November 2006.

What's there to choose from?

HondaJet, with its atypical over-the-wing pod-mounted engines, is the first aircraft developed by the Honda Motor Company. It made its maiden flight in December 2003 and publicly exhibited at the EAA AirVenture air show in Oshkosh, Wisconsin, in July 2005. The company began taking orders for HondaJet in 2006 after it entered a partnership with Piper Aircraft to market the HondaJet. Deliveries will begin in 2010. Honda plans to build 70 jets per year, and sell each at a price of around \$3.65 million.

The carbon fibre twin-engine Epic Elite flew at this year's AirVenture at Oshkosh. The first few Elite jets will first be delivered in 2007, as a six-passenger aircraft. A 6 to 8 passenger version of the jet is expected to be certified in 2009, and delivered the following year. The company is also designing a second jet, the single-engine Victory, which will fly next year at Oshkosh.

Epic announced that it booked \$40 million worth of aircraft orders at Oshkosh, after over \$23 million at an earlier air show in Florida. Most bookings were for the Elite, which will retail at around \$2.35 million. It expects even more of a response for the Victory, which will sell for under \$1 million.

Adam Aircraft, located in a suburb of Denver, Colorado, has announced that it has an order book for 282 Adam A700 VLJs. Adam has a prototype plane flying, and full certification is expected in 2008. Over 100 Adam A700s have been ordered by future air taxi provider Magnum Jet. They retail at about \$2.40 million each.

Brazilian manufacturer Embraer is the king of regional jets, but is aggressively moving into the small business jet segment. Its Phenom 100 has a seating capacity of 4 passengers but it can go up to six if the lavatory is removed. Its price is estimated at \$2.98 million, and delivery is set for 2009.

But with 2,500 of its Eclipse 500 VLJs on order, Eclipse Aviation, based in Albuquerque, New Mexico, is the VLJ maker that's flying highest. The Eclipse 500 received full certification three weeks after Cessna's Mustang on 30 September 2006. It expects to receive certification for flight into known icing conditions as well as the production certificate in 2007. Eclipse has announced it will deliver 515 airplanes in 2007, and eventually plans a production capacity of four airplanes a day, each selling at \$1.49 million.

Does it have an onboard toilet?

The hottest topic of discussion about VLJs, though, is not about their speed, fuel consumption, range, avionics or interiors. Instead, it's on whether a VLJ needs a lavatory on board or not. The thing is that the most popular VLJ, the Eclipse 500, does not have a toilet on board.

Passengers that simply have to relieve themselves will have to make do with a porta-potty in the luggage area. But Eclipse Aviation's CEO Vern Raburn says that most of his company's customers will be using the VLJ for short flights from 500 to 800km, lasting 40 to 80 minutes, and that the lack of an onboard lavatory is not going to be an issue for VLJ customers.

Adam Aviation CEO Rick Adam disagrees. He feels people are not going to get onto a plane without a toilet; not after the first time. Consequently, the seven-seater Adam A700 has a rear lavatory with a privacy curtain.

The Cessna Mustang also has an emergency toilet, but it is located between the cockpit and the cabin. The Embraer Phenom 100 offers a fully enclosed lavatory with a solid door. But these toilet-equipped planes are considerably more expensive than the Eclipse.

Those planning on using their jet's full range will probably want a toilet onboard. But the new air taxi service companies, which make up the bulk of the Eclipse orders, say that not having a toilet is not a concern for most of their passengers. The CEO of DayJet goes as far as to say that even if his company outgrows the Eclipse 500 in the future, he will still have his larger planes configured without a toilet.