Japanese aerospace makes ready for take-off

NEWS ANALYSIS

Mitsubishi and the state are set to breathe new life into the industry with development of a new jet, writes **Jonathan Soble**

There is something oddly familiar-looking about the decommissioned passenger aircraft sitting in a grassy field a few kilometres from Tokyo's Narita airport.

"Some people say it looks like a bullet train," says Hikotaro Kaneda, curator of the Museum of Aeronautical Sciences, which owns the field and the four decade-old turboprop – a Japanese-made YS-11, one of about 180 built as part of the country's bid to revive its commercial aerospace industry after the second world war.

A shared appearance never brought shared success, however. Unlike the iconic bullet train, the YS-11 is known almost exclusively among aviation geeks and nostalgic Japanese retirees. Its eight-year mass-production run ended in 1973 amid huge losses, and the last YS-11 retired from domestic service last year.

The programme's demise reduced Japanese civil aircraft makers to the role of licensees and parts suppliers to foreign champions, and today aerospace makes up just 0.3 per cent of the country's gross domestic product.

That may soon change. The government is supporting a 70-90 seat regional jet, dubbed the MRJ, being developed by Mitsubishi Heavy Industries, the same company that led the state-backed consortium behind the YS-11.

If the MRJ wins final approval next year, it would enter service in 2012 as the first jet-powered commercial passenger aircraft designed and built in Japan.

Expectations are high, and with China developing its own regional jet, national prestige is at stake. Mitsubishi estimates the world's carriers will order 5,000 regional jets over the next 20 years, as developing countries expand their air networks and airlines shift to smaller, less fuel-thirsty planes.

"This isn't just about a single project. Our goal is to take Japan's aerospace industry to the next level of development," says Masakazu Niwa, general manager of Mitsubishi's aerospace division.

The government is expected to put up a third of the estimated Y120bn ($1bn, £500m, €720m) development cost of the MRJ, which is the largest of several Japanese aerospace schemes now trying to achieve lift-off. Kawasaki Heavy Industries is flight-testing its new C-X military cargo aircraft, a Y35bn project funded by Japan's defence ministry, and may market it for civilian use. Honda plans to deliver its first five- to six-passenger mini-jet in 2010.

Mitsubishi's jet will compete primarily on technology. Early designs promise a 20 per cent improvement in fuel efficiency over existing aircraft, thanks to liberal use of composite materials such as those found in Boeing's new 787 series of larger jets, for which Mitsubishi is a key manufacturing partner. Mitsubishi hopes Boeing will invest in the MRJ project, though nothing has been agreed beyond an existing broad-based alliance.

A mock-up of the MRJ presented at the Paris air show in June attracted keen interest from airline industry attendees, the company says. But analysts worry the MRJ faces big commercial obstacles.

Fierce competition between the small-jet industry's two incumbents, Bombardier of Canada and Brazil's Embraer, is squeezing profit margins even before new entries from Japan, China's state-owned AVIC I and Russia's Sukhoi hit the market.

"The competition is bruising now – in the future it will be brutal," says George T. Haley, head of the Centre for International Industry Competitiveness at the University of New Haven, US.

Mitsubishi has said it would need to sell 350-400 units to recoup development costs, but that figure may be too optimistic, especially if it is forced to offer discounts as is common in the industry, Mr Haley says.

Bombardier, an established player with fewer start-up costs, puts the break-even point for its next-generation C-series jets at 500 aircraft.

"I think [Mitsubishi's] chances of hitting break-even are slim to none," Mr Haley says.

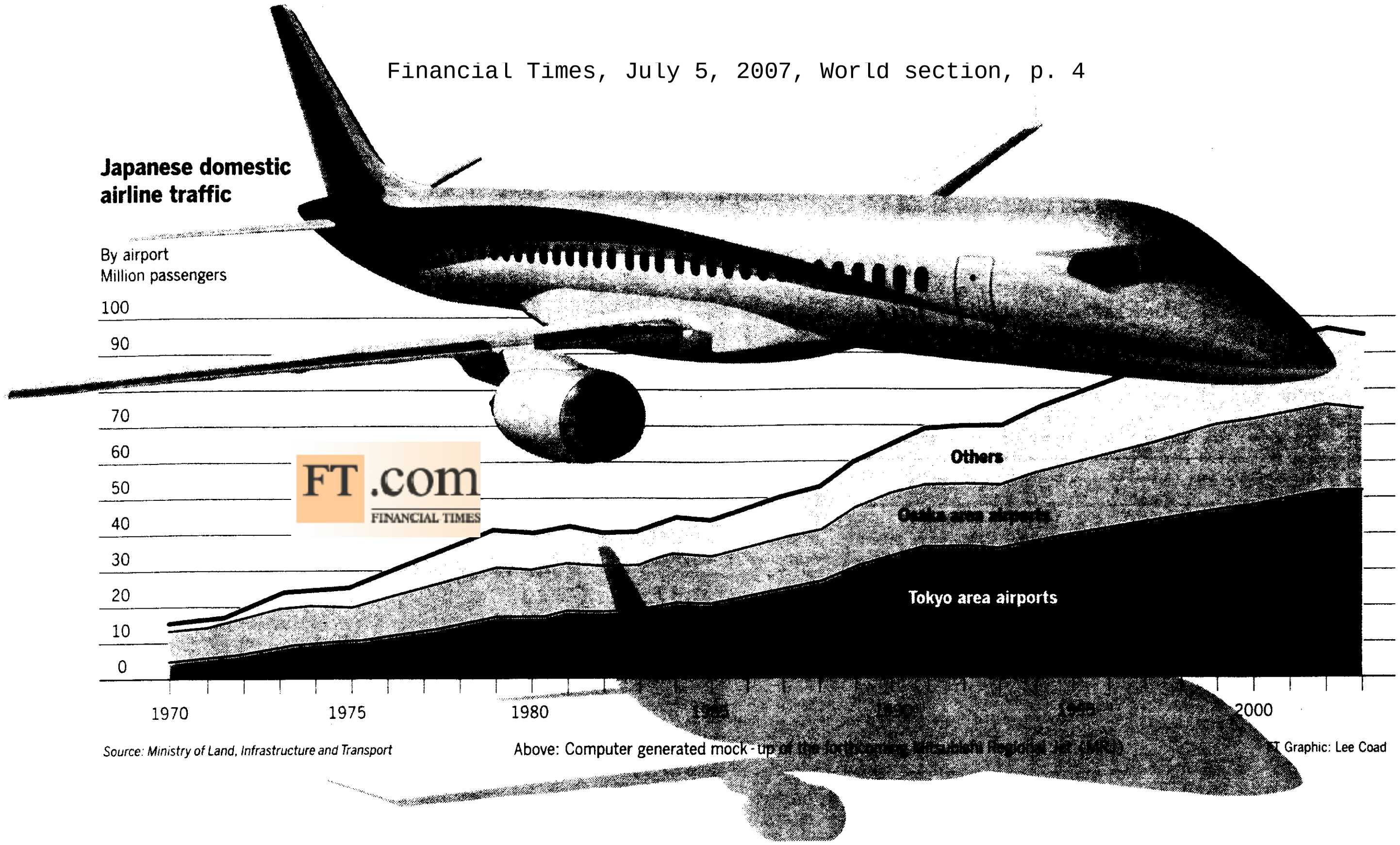
Mitsubishi will not be helped by its late start. The MRJ will come to market three years behind China's jet and four years after Russia's, and will be too late to exploit big fleet reorganisations being undertaken by its most natural customers, Japan Airlines and All-Nippon Airways.

At the Paris air show, JAL announced an order of 10 regional jets from Embraer with an option for five more, the first time it will buy from the Brazilian firm.

"Ideally, Japanese airlines will want their fleet restructuring to be over by 2012," when the MRJ makes its debut, says Kazusada Hirose, analyst at Moody's Investors Service.

Though higher business traffic between Japan and China could boost demand for regional jets, "the timing is bad", he says.

At the aerospace museum, where foreign-made jets taking off from nearby Narita roar above the sleeping YS-11, Mr Kaneda struggles to sound hopeful. "The regional jet class is a real war zone," he says. "The question is whether airlines will think the MRJ is worth waiting for."



Source: Ministry of Land, Infrastructure and Transport

Above: Computer generated mock-up

FT Graphic: Lee Coad

Taking advantage of the competition

Japan's regional jet project has received an unexpected lift from problems at a big competitor, Canada's Bombardier, which supplies most aircraft with between 50 and 100 seats operated by Japan's two big carriers, Japan Airlines and All Nippon Airways.

Bombardier's DHC-8-400 turboprops have been plagued by mechanical problems, including a landing gear failure that forced a dramatic nose-to-the-tarmac landing in south-west Japan in March.

Other manufacturers also sense an opportunity. ATR, the joint venture between France's EADS and Italy's Alenia Aeronautica, plans to begin marketing its 50-70 seat turboprops in Japan next year.

Japanese carriers may see advantages in swapping propeller aircraft for the new breed of regional jets. Only nine of their combined fleet of 50-odd 50 to 100-seaters are jets.