Mitsubishi’s Bid
To Upend the RJ Market

BAE’s Futuristic
Concepts for UAVs
Mitsubishi aims to muscle into aircraft manufacturing with a ‘green’ regional jet

MICHAEL MECHAM and JOSEPH C. ANSELMO/TOKYO

Mitsubishi Heavy Industries is Japan’s largest aerospace manufacturer and a premier collaborator with Boeing, Bombardier, Lockheed Martin and others on fighters, business, regional and commercial jets. But it hasn’t built a commercial airplane of its own for more than three decades and its last attempt, a turboprop, was an economic disaster.

Now the company is poised to put itself—and Japan—back in the business of designing and building commercial aircraft. The board of directors has granted its aerospace business unit authority to offer the Mitsubishi Regional Jet (MRJ) to airlines. By about Apr. 1, the start of fiscal 2008 in Japan, a formal launch decision is expected, says Senior Vice President Nobuo Toda, a member of the board and director of the MRJ project.

The Japanese government is expected to foot a substantial portion of the estimated $1.9 billion development cost, although Toda says the specific contribution is still being negotiated. Early this month Toyota Motor Corp. confirmed that it was considering a substantial investment in the project, and a Mitsubishi official says the company is in talks with several other potential Japanese investors.

As a go-ahead, the MRJ, Mitsubishi is confident the technology and stylish passenger cabin incorporated into the MRJ will position the company as a major player in the aircraft business. Still, suppliers, potential customers and competitors across the industry believe there’s a good chance the MRJ re-enters the fray. In addition to Pratt’s engine, Mitsubishi has named five other major MRJ suppliers—Rockwell Collins, Parker Aerospace, Hamilton Sundstrand, Nabetco and Sumitomo Precision Products—and it is in advanced negotiations with others.

Steven Udvar-Hazy, chief executive of aircraft leasing giant International Lease Finance Corp. (ILFC), says his company has held several meetings with Boeing and its competitors, and is interested in the MRJ’s performance.

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Coupled with improved aerodynamics, Mitsubishi expects the GTF-powered MRJ to offer a 20-30% reduction in fuel consumption over current-generation competitors, along with reduced CO2 and NOx emissions. The jet is designed to meet the International Civil Aviation Authority’s most stringent noise requirement (Chapter 4) and emissions rating (CAEP 6). “This should be the world’s greenest aircraft,” says Toda.

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Mitsubishi and has made a series of recommendations for improving the MRJ’s design. At the same time, ILFC has been in talks about buying Bombardier’s proposed CSeries jet, which has also signed on to use Pratt’s GTF engine (AW&T Feb. 18, p. 78).

“What I have told [Mitsubishi] is, ‘If you guys can pull it off and do what Toyota has done in cars, you can be a formidable player,’” Udvar-Hazy tells Aviation Week & Space Technology. “But it has to be done right.” His major concern is the aircraft’s price.

Udvar-Hazy says Mitsubishi wants ILFC to be more than just a buyer, asking it to serve as a marketing distributor of the aircraft outside Japan. The idea of a manufacturer pulling a big aircraft leasing company into a closer relationship with its sales and marketing team isn’t new. One of Scott Carson’s first decisions after becoming sales chief at Boeing Commercial Airlines in 2005 was to add a new sales team dedicated solely to leasing companies to the six already established, geographically organized teams (AW&T June 20, 2005, p. 30).

Paying closer attention to the big leasing companies proved to be symbiotic because the two traded notes about who was in need of aircraft to lease and buy. “We used to look at them as competitors,” Carson, now BCA’s chief executive, said of the leasing companies. “We now look at them as partners.”

Toda says Mitsubishi needs to sell 300-400 MRJs to recoup its investment. The company is counting on airlines at home—All Nippon Airways (ANA) and/or Japan Airlines (JAL)—to launch the project. Besides covering all of Japan’s domestic destinations, the MRJ70/90 would provide regional route opportunities into South Korea, Taiwan, the heavily populated east coast of China and as far south as Vietnam.

Both JAL and ANA currently operate regional flights abroad from Tokyo’s Haneda Airport, but they do so under the rubric of charter operations. The coming of a fourth runway in 2010 will allow them to introduce regularly scheduled regional operations. Each carrier hopes Haneda’s extra capacity will allow it more flexibility to use smaller aircraft to assure peak load factors, especially in off-peak hours. Currently, they are so hemmed in by capacity constraints at the airport that they schedule larger-gauge aircraft to ensure themselves sufficient capacity. More slots will allow them to better customize schedules.

In anticipation of Haneda’s expansion, JAL already has ordered 10 Embraer 170s and holds five options. It also operates Bombardier Q400 turboprops. It has barely begun its analysis of the MRJ, an official said.

ANA says it is interested in the MRJ, but an official notes that it also is evaluating the possible selections from Bombardier and Embraer. It has not begun a detailed engineering study of any of the offerings. That raises serious questions about whether Mitsubishi can meet its Apr. 1 target for launching the program.

But a long-time observer of Japanese aerospace says that particular deadline is only an official government marker to get the program underway by the start of fiscal 2008. A survey of Mitsubishi’s suppliers by Aviation Week showed no concern if that deadline slips quietly by, unfulfilled.

And winning a launch customer in Japan would only be a first step. Toda acknowledges that for the MRJ to be a commercial success it will have to crack the passenger-rich markets of North America and Europe. With a maximum range of up to 1,800 naut. mi. for the long-range variant of the MRJ90 and 1,960 naut. mi. (2,250 mi.) for the MRJ70LR, Mitsubishi’s new jets have a reach that can span those continents.

Mitsubishi further recognizes that it will need to demonstrate to prospective airline customers that it will have a global support network in place, says MRJ Deputy General Manager Masakazu Niwa. The company plans to team with Saab Aerospace to provide customer support outside Japan. But critics question whether that is enough.

An investment by Toyota, the world’s second-largest automobile manufacturer, would be the second major venture by a Japanese auto maker into aerospace. After years of study, Honda is now set to build the HondaJet.

Toyota’s interest, if it happens, will be a coup for Mitsubishi in no small measure because the company is so well-respected throughout aerospace for its lean manufacturing techniques. The Asahi Shimbun reported that Toyota could invest about $100 million in the venture.

With Robert Wall in Singapore.