

# Mitsubishi Regional Jet (MRJ): Business Aspects



Sales and Marketing Department  
Mitsubishi Aircraft Corporation

The Mitsubishi Regional Jet (MRJ) is a family of 70- to 90-seat next-generation regional jets (MRJ70/90) that offer both top-class operational economy and outstanding cabin comfort based on a vision of “applying advanced mainline jet technology to regional jets to create the new standard for next-generation regional jets and offering unprecedented value for the environment, passengers and airlines.” Mitsubishi Heavy Industries, Ltd. (MHI) officially launched the MRJ Program in March 2008 and the Mitsubishi Aircraft Corporation commenced operation in April of the same year to conduct the development, production, sales and customer support of the MRJ.

## 1. Development Status

After the MRJ was launched in April 2008, we completed preliminary and conceptual designs as scheduled. Since the early stage of the program, we have proactively conducted sales activities in the global market, visiting customers and inviting executives of airline companies from around the world to Japan to hold Airline Advisory Group (AAG) and Technical Working Group (TWG) meetings. We received many valuable requests and ideas from the companies through these activities. Mitsubishi Aircraft Corp. established the basic specifications of the MRJ in September 2009 based on the latest knowledge regarding advanced technology and by reviewing customer feedback. To make the MRJ a best-selling airplane, the following three factors were incorporated into the basic specifications:

### (1) Expanded cabin space.

The new configuration will offer a wider cabin with more head clearance than competing planes. The cabin height has been raised an additional 1.5 inches. This translates into an additional 12% volume in the overhead bin, which will better serve airlines and passengers by accommodating more carry-on baggage, including large roller bags (**Figure 1**).

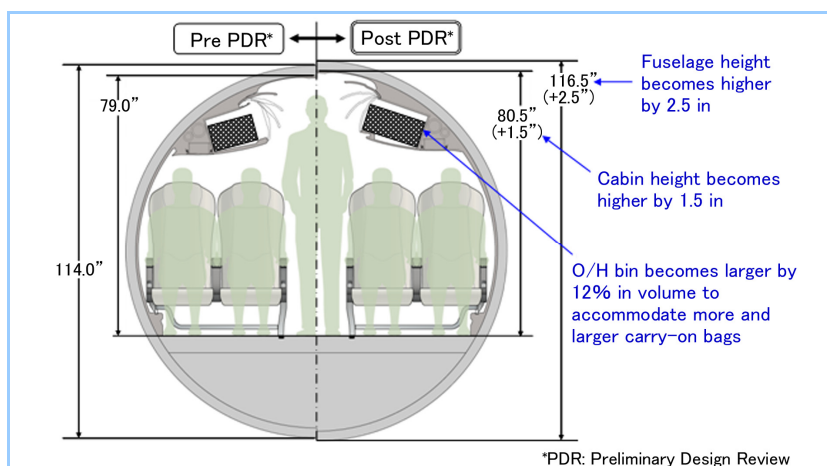
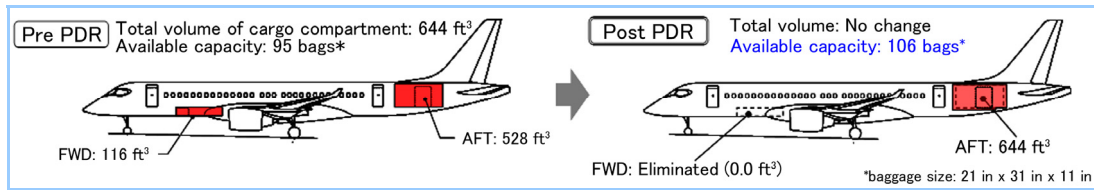


Figure 1 Expanded cabin space

## (2) An improved cargo compartment.

To enhance the efficiency of baggage handling, the aft cargo compartment, which offers stacking efficiency, has been expanded and the forward cargo compartment has been eliminated. This will simplify baggage handling and improve stacking efficiency (**Figure 2**).



**Figure 2 Improved cargo compartment**

## (3) Adjusted wing material.

The new design will use metal for the wings instead of a composite material because the wing weight of the MRJ cannot be reduced using current composite technology. This will optimize the wing structure for each model and facilitate the development of a possible stretch-version 100-seat jet.

In addition to the MRJ 70/90, we announced that we were considering the development of a 100-seat version of the MRJ, which was highly anticipated in Europe.

Under the new specifications, the MRJ will achieve basic performance requirements, including lower fuel burn, noise and emissions and offer wider cabin space and larger cargo compartments. The MRJ will become an even more comfortable airplane by incorporating customer feedback into the new design. In addition, the MRJ is highly regarded among airlines and leasing companies.

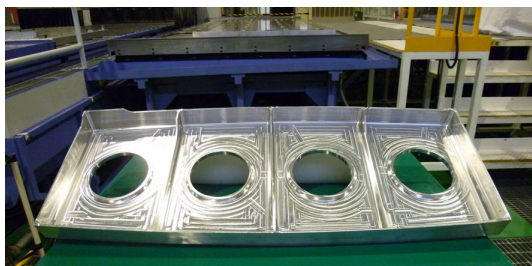
We entered the critical design phase and moved to the manufacturing phase in September 15, 2010, starting with the release of drawings. On September 30, 2010, the metal-cutting ceremony (production of the first component) (**Figure 3**) was held, initiating full-scale manufacturing.

Currently, we have almost finished selecting partner suppliers for the MRJ. The major partners and the systems they will provide are the following:

- Pratt & Whitney: Engine
- Hamilton Standard: Electrical power and air management
- Rockwell Collins: Flight control system
- Sumitomo Precision Products Co., Ltd.: Landing gear
- Nabtesco Corporation: Flight control system (flight control actuators)

All partners are time-proven and established companies in the aircraft industry.

In the future, we will schedule the first flight for the second quarter of 2012, followed by the first delivery for All Nippon Airways (ANA) Co., Ltd. in the first quarter of 2014.



**Figure 3 Production of the first component**

## 2. Sales Status

Since the launch of the MRJ in April 2008, our proactive sales activities in the global market have successfully resulted in an order of 100 MRJ aircraft (50 firm, 50 options) with Trans States Holdings, a major airline holding company. This order, combined with one for 25 aircraft (15 firm, 10 options) from All Nippon Airways, brings the current number of orders for the MRJ to 125 aircraft.

The MRJ has attracted a great deal of interest from foreign airlines because it will be the first jet airplane developed and manufactured in Japan, which is very highly regarded for various industrial product manufacturing. The reputation of the MRJ is improving as development progresses.