

Aerospace Systems

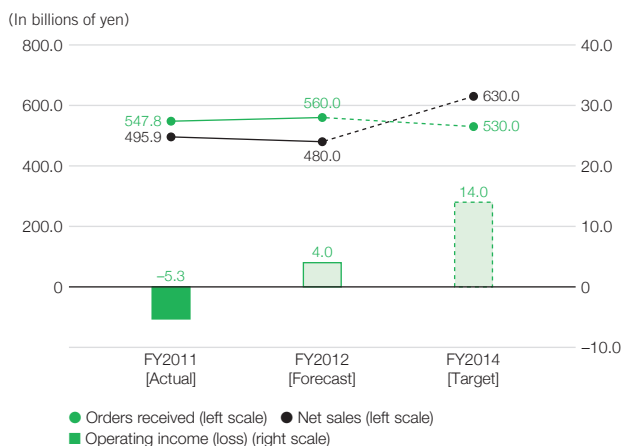


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Basic Strategy

- Increase overseas production/procurement for commercial aircraft and improve profitability through drastic innovations
- Propose an integrated defense systems concept by coordinating businesses for land, sea and air
- Continuous successes in the launch of H-II A/B
- Enhance competitiveness through development of next-generation primary launch vehicle, etc.

FY2014 targets



Fiscal 2011 Review

Aerospace Systems experienced a significant decline in orders for commercial aircraft from the high level achieved in FY2010 as well as decreased demand for Patriot missile systems in defense-related products. Space systems-related orders increased year on year, driven by increased orders for H-IIA rocket launch services. The total value of consolidated orders received for Aerospace Systems decreased below FY2010's figure to ¥547.8 billion.

Consolidated net sales increased year on year to ¥495.9 billion on increased sales of commercial aircraft, space systems, and defense-related products. Operating income decreased compared to FY2010 and the business experienced a ¥10.9 billion operating loss due to the strong yen and other factors. In addition to capital investments of ¥32.6 billion primarily to upgrade production facilities for commercial aircraft, the segment recorded ¥45.0 billion in research and development expenses. The main targets for these costs were prototypes to demonstrate Advanced Technological Demonstrator-X, specifically small, ultrasonic aircraft offering outstanding mobility and radar avoidance capabilities, as well as development of the cutting-edge Mitsubishi Regional Jet (MRJ).

Relationship Between Aerospace Systems and Business Domains

Business domain	Customers/ Markets	Segment					
		Shipbuilding & Ocean Development	Power Systems	Machinery & Steel Infrastructure Systems	Aerospace Systems	General Machinery & Special Vehicles	Others (Air-Conditioning/ Machine Tool)
Energy & Environment	<ul style="list-style-type: none"> • Power companies • Gas companies • Resource companies (oil, chemicals, steel) 		<ul style="list-style-type: none"> • GTCC • Large-sized thermal power plants • Nuclear energy 	<ul style="list-style-type: none"> • Environmental plants • Chemical plants 			
Machinery, Equipment & Systems	<ul style="list-style-type: none"> • Core industries (steel, etc.) • Automotive industry • Logistics, etc. 		<ul style="list-style-type: none"> • Stationary engines 	<ul style="list-style-type: none"> • Compressors • Iron and steel machinery • Crane and material handling systems 		<ul style="list-style-type: none"> • Turbochargers • Forklift trucks • Engines 	<ul style="list-style-type: none"> • Air-conditioning equipment • Machine tools
Transportation	<ul style="list-style-type: none"> • Airlines (air) • Shipping companies (sea) • Railways (land), etc. 	<ul style="list-style-type: none"> • Commercial ships 		<ul style="list-style-type: none"> • Transportation systems 	<ul style="list-style-type: none"> • Commercial aircraft 		
Defense & Aerospace	<ul style="list-style-type: none"> • Ministry of Defense (land, sea, air) • JAXA 	<ul style="list-style-type: none"> • Destroyers and submarines for the Ministry of Defense 			<ul style="list-style-type: none"> • Defense aircraft • Missiles • Space systems 	<ul style="list-style-type: none"> • Special vehicles 	



Boeing 787 Transport Aircraft



H-II Launch Vehicle



H-II Transfer Vehicle (HTV) KOUNOTORI
(Courtesy of JAXA/NASA)

Future Initiatives

In commercial aircraft, MHI is eyeing business scale expansion, reflecting new demand for roughly 30,000 aircraft projected over the next two decades as emerging markets continue to develop and airline companies recover business vitality. For the Boeing 787, plans call for achieving sales and earnings growth by augmenting basic facilities, such as auto-claves for realizing a production rate of 10 airplanes per month, coupled with production automation and other rationalization efforts. To mitigate foreign exchange rate risks and improve earnings, MHI will develop a supply chain with hubs in Asia and North America, and increase overseas procurement and production to denominate more costs in foreign currencies.

In defense-related products, in response to calls for more robust defense industry infrastructure in a security environment marked by rising tensions, MHI will propose integrated defense systems by coordinating its businesses for land, sea and air defense businesses. MHI will also maintain its production and technological bases related to fighter aircraft, and promote international joint development and production of necessary parts. MHI possesses some of the world's most advanced defense and space technologies, and will utilize

these in combination with private-sector technologies to develop new products.

In space systems, the budget for space in Japan and overseas demand for the launch of commercial satellites are expected to remain flat. MHI will seek to further enhance its credibility through the continuation of successful H-II A/B rocket launches. At the same time, MHI will move to bolster its launch capabilities and bolster cost competitiveness, and thereby expand orders, by developing a next-generation launch vehicle.

In this climate, the targets for the Aerospace Systems business for fiscal 2014 are orders of ¥530.0 billion, on a par with the previous fiscal year, as increased demand for commercial aircraft covers the gradual decline in defense-and space-related orders. Net sales are projected to be ¥630.0 billion, buoyed by expansion in sales of commercial aircraft and space systems. Plans call for operating income of ¥14.0 billion, primarily from improved profitability in the commercial aircraft business. MHI is targeting the delivery in fiscal 2014 of 100 Boeing 777 airplanes (up 17 from fiscal 2011) and 120 Boeing 787 airplanes (up 93 from fiscal 2011).

PICKUP

Mitsubishi Regional Jet (MRJ)

MRJ is a next generation regional jet that will offer both top-class operational economy and outstanding cabin comfort. MRJ has received 230 orders so far including 25 from All Nippon Airways (including 10 option), 100 from Trans States Holdings (including 50 option), 5 from ANI Group Holdings, and 100 from SkyWest.

MRJ's first flight is scheduled for JFY 3Q 2013, and the first delivery is slated for the summer or later half of JFY 2015. Mitsubishi Aircraft Corporation is aggressively conducting the expansion of the sales offices located in America and Europe, sales promotion in Asia and other developing countries, development of the MRJ, confirming the manufacturing quality, and preparation for the mass production.

