

F-35 fighter jet disappoints Japanese defense industry

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TOKYO - Japan's first F-35 stealth fighter jet, which underwent final assembly in the country, was unveiled at Mitsubishi Heavy Industries' Minami Komaki Plant in Aichi Prefecture on June 5. But Japan's expectations for a larger role in the aircraft's production remain unfulfilled.

The F-35 is the Air Self-Defense Force's next-generation, mainstay fighter plane. The Defense Ministry plans to import four assembled F-35s, but this time components manufactured abroad were imported and assembled here. During the ministry's selection process for the next mainstay fighter, the Japanese defense industry requested a role producing some parts. But things are not going as planned.

Lockheed Martin developed the F-35 jointly with partners from eight other countries. Japan was not involved. The aircraft has high stealth capability that makes it difficult for radar to detect. The ASDF will deploy them to deal with North Korean provocations and foreign aircraft violating Japan's airspace.

Since the U.S. is already operating F-35s, joint operations will be easier. Expectations for the new model are high because Japan's fighter jets, including the F-2 jointly developed with the U.S., are aging.

It remains uncertain, however, whether the F-35 will give Japan's defense industry a boost since it may be involved only in final assembly.

Domestic parts suppliers threatened

Japanese companies have benefited as parts suppliers for the F-2. These parts need to be replaced periodically, keeping the industry busy. And being involved in fighter jet production enables the industry to transfer acquired technologies to the civilian aircraft field. One such example is carbon fiber composite materials, the manufacturing technologies of which came from the F-2 and were subsequently used in the Boeing 787.

But delivery of new F-2s ended in 2011. Parts makers that lost contracts because of this dropped out of the industry.

Selection of the next mainstay fighter jet ended in 2011 after fierce competition between three Western rivals. In addition to performance and price, the Defense Ministry took into account whether the manufacturer would allow Japanese makers to join the production process, a concern intended to help prevent the domestic defense industry from losing competitiveness.

Despite high expectations, the only role Japan is presently slated to play for the F-35 is in assembly. There was a plan to produce part of the fuselage in the country when the F-35 was chosen, but it has virtually been abandoned, according to a defense industry source. In short, selecting the F-35 hardly benefits parts makers and reduces their role in the aircraft industry.

Hopes dashed for bigger role in production, posing risk to domestic companies

The ministry is planning to purchase 42 F-35s. Of them, four will be imported as finished products. The ministry will then choose how to further replace the aging SDF fleet, but the F-35 is not a lock because Boeing, which lost the F-35 bid to Lockheed Martin, is looking to make a comeback.

Parts manufacturers for aircraft with advanced stealth capabilities require high-level security clearance, which make technology transfers difficult. As such, Japanese defense businesses need to consider whether they could recover their investment by marginally supporting only 42 jets.

Demand for defense equipment has helped nurture the domestic aerospace industry after World War II. After the seven-year hiatus imposed by the Allies, the industry began acquiring technologies for maintenance and repair of U.S. military aircraft and for production of SDF aircraft parts.

As appreciation for Japanese technological prowess rose, so did the ratio of Japanese-made parts in Boeing civilian aircraft. Now these parts account for 35% of each Boeing 787, including the main wings. The defense sector accounts for only around 20% of aircraft production.

Japan's aircraft industry is experiencing a leveling-off. It is heavily dependent on Boeing, but orders from the company are falling. Hopes for the Mitsubishi Regional Jet -- the first

domestically made aircraft in half a century -- were high, but its development has been repeatedly delayed.

Aerospace companies have long dreamed of transforming from parts suppliers into aircraft manufacturers. But the dream has yet to materialize.

Defense aircraft won't be enough to salvage the aerospace industry. If there is little prospect for manufacturing new aircraft, the industry should try become better at maintenance of engines and other parts, leaving bold ideas behind as they strive to stay relevant.