

# Japan to develop midair rocket-launch system

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The government has launched a project to develop a midair rocket-launching system that can place satellites in orbit, it has been learned.

The project is aimed at meeting the global demand for low-cost, small satellites that can be developed and produced relatively quickly. Observers say the project, if successful, would help Japan maintain its international competitiveness in the rocket-launching business.

Midair rocket launches require the technology to both launch a satellite-mounted rocket after an aircraft has flown over the open sea as well as to then separate a satellite from the rocket to send it into orbit.

The midair firing system does not require large launch facilities on the ground and therefore allows for greater flexibility of launches by reducing the impact of restricting factors such as negotiating with local fishery cooperatives on the timing of a launch.

A U.S. firm has undertaken commercial midair rocket launches for about 20 years, and the system has been studied by a number of countries.

Through the Institute for Unmanned Space Experiment Free Flyer (USEF), the Economy, Trade and Industry Ministry has for about the past three years been conducting research into the technologies needed to mount a solid fuel-powered rocket on aircraft \_ which means there is no need for liquid fueling immediately before liftoff \_ as well as

associated legal issues.

METI is contemplating accepting proposals from companies in February at the earliest to determine the size of the satellite-launch market and the cost of midair rocket launches.

The ministry plans to develop the midair rocket-launching system at a cost of 10 billion yen to 20 billion yen, about 10 percent of that for the H-2A Greenhouse Gases Observing Satellite, named Ibuki, which was launched Friday. It also will seek to hold down launch costs to several hundred million yen.

The Japan Aerospace Exploration Agency, which comes under the jurisdiction of the Education, Science and Technology Ministry, also is interested in the midair rocket launching system as a technology that could lead to the development of a spacecraft similar to the U.S. space shuttle.

JAXA has initiated studies to realize the development of a spacecraft in cooperation with Mitsubishi Heavy Industries, Ltd. and IHI Aerospace Co., which has experience with solid fuel-powered rocket technology.

USEF said it would be able to develop the midair rocket-launching system in five years.

The government's headquarters for space development strategy intends to discuss the midair rocket-launching technology as part of its rocket strategy.

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