

Japanese government plans powerful information-gathering satellite

February 2 2009, The Yomiuri Shimbun

Aiming to drastically beef up the performance of the nation's intelligence satellites, the government of Japan will embark on a research and development program in fiscal year 2009 to develop an optical information-gathering satellite that will have one of the world's highest resolutions.

The envisioned satellite will be able to identify objects on the ground with far greater precision than the most advanced commercial satellites, officials said Saturday.

The best among currently available commercial surveillance satellites is said to be able to identify objects with a diameter of as little as 40 centimeters.

The government program is aimed at surpassing the 40-centimeter resolution capability.

Although detailed capabilities of military satellites of foreign countries are secret, only U.S. satellites are believed to have a sub-40-centimeter resolution.

Under the R&D program for the ultra-high-resolution satellite, a demonstration satellite is scheduled to be launched in fiscal year 2012 to ascertain its performance in space, they said.

A full-fledged optical information-collecting satellite with the envisaged

cutting-edge optical capability will be put into orbit in fiscal year 2014, officials said on condition of anonymity.

The program is designed to greatly boost the capability of Japan's intelligence satellite on the strength of the enactment in May of the Basic Law on Space, which empowered the government to utilize space for defense purposes.

Before the enactment of the law, information-gathering satellites were limited to nonmilitary uses because of a resolution in 1969 that restricted the utilization of space to peaceful purposes. Because of this restriction, development of a satellite utilizing a higher level of technology than that used for making ordinary commercial ones was forbidden.

The satellite, called Optical No. 5, is planned to be launched in fiscal year 2014.

The Cabinet Satellite Intelligence Center, in charge of operating information-gathering satellites and analyzing their imagery, has incorporated 6.8 billion yen into its budgetary demand for fiscal year 2009 for funding research into the development of Optical No. 5. The research will focus on ways of enhancing the satellite's resolution and improving the brightness of images. In addition, 3.3 billion yen will separately be allocated for the development of the demonstration satellite, according to the officials.

Japan currently has four information-gathering satellites: two optical satellites, which take photos of ground objects by means of visible light using high-tech digital cameras; and two radar satellites, which use radio waves to collect data on objects, enabling them to "see" through cloud or in darkness. The optical satellites currently in operation have a resolution of about one meter.

After the constraints on space development were lifted with the enactment of the Basic Law on Space, the Defense Ministry announced a "basic outline for a space development strategy" on Jan. 16.

"By bolstering the performance of the nation's intelligence satellites," the outline said, "this country should further enhance the quality and quantity of image information that can be acquired by the satellites."

The higher the resolution of satellite imagery, the easier it is to grasp the status of other countries' military facilities as well as the aftermath of natural disasters and accidents, the ministry said.

Prior to the launch of Optical No. 5, CSICE is scheduled to launch in fiscal year 2010 a new type of information-gathering satellite, Optical No. 3, capable of identifying objects with a diameter of about 60 centimeters, the officials said.

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Citation: Japanese government plans powerful information-gathering satellite (2009, February 2) retrieved 25 April 2024 from

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