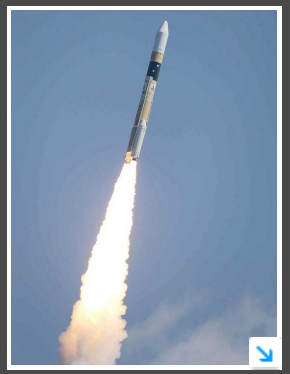
Japan Begins National Security Space Buildup

By Paul Kallender-Umezu 11:01 a.m. EDT April 12, 2015



(Photo: Jiji Press/Getty Images)

TOKYO — In January, Japan's Office of National Space Policy cemented a new 10-year space strategy that for the first time folds space policy into national security strategy, both to enhance the US-Japan alliance and to contain China.

Under the third Basic Plan, Japan's priorities go beyond building out its regional GPS-backup Quasi-Zenith Satellite System (QZSS) navigation constellation, advancing its space situational awareness (SSA) capabilities and developing a maritime domain awareness (MDA) constellation. The country will also as much as double its Information Gathering Satellite (IGS) reconnaissance program to an eight-satellite constellation, and develop a space-based missile early warning capability.

"Japan's three most important space programs are the QZSS, SSA and MDA, but we are also looking toward [space-based] shared [ballistic missile] early warning," Liberal Democratic Party lawmaker Hiroshi Imazu said. As former chairman of the party's Space Policy Committee and current chairman of its Policy Research Council's Research Commission on Security, Imazu is a leading advocate for Japan bolstering its national security space architecture.

Reflecting this, the current space budget increases QZSS funding by 18.5 percent to ¥22.3 billion (US $187.3 million) to build a "full" seven-satellite regional constellation, and the IGS program gets a 14 percent boost to ¥69.7 billion, as part of an overall

MORE STORIES

Bow Wave of Subs Rolling Through Yards
April 12, 2015, 2:54 p.m.

Nations Respond to Russian Buildup in Baltics
April 12, 2015, 2:52 p.m.

18.5 percent increase for total government space spending to ¥324.5 billion for this year.

The Basic Plan differs from previous policy statements in clearly stating national security objectives and issues. It directly names China as a destabilizing factor in global security, citing China's 2007 direct-ascent anti-satellite weapon test and subsequent activities such as jamming and laser-blinding experiments.

The folding of space policy into domestic and alliance security strategy was mandated in Japan's first National Security Strategy of December 2013. It is one of a series of major orientations away from a "passive defense" to a "proactive" strategy advocated by Prime Minister Shinzo Abe.

The US strongly supports the new direction. Following preparatory and discussion meetings at the second Japan-U.S. Comprehensive Dialogue on Space in Washington last May, both sides agreed to boost cooperation in national security space, particularly for SSA and MDA to monitor the growing aggressiveness of China.

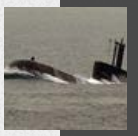
"I think Japan's new policy marks a major shift," said James Clay Moltz, professor at the Monterey, California-based Naval Postgraduate School and author of "Asia's Space Race: National Motivations, Regional Rivalries and International Risks." "It is also the first document to lay out a set of concrete steps toward ... allowing military activities in space. Compared to US national space policy documents, it is very detailed and lays out a relatively clear vision."

More remarkable is the extent to which national security space has been knitted into the programs of the Japan Aerospace Exploration Agency (JAXA), which until a 2012 legal change allowed it to participate in military space development was a research and development organization.

JAXA is busy with a slew of new dual-use projects, including two next-generation data-relay satellites, one of them an optical interorbit asset, to cope with growing intelligence, surveillance and reconnaissance traffic. JAXA is also directly cooperating with the Ministry of Defense (MoD) to host an MoD-built infrared missile sensor on a JAXA-built reconnaissance satellite. The agency is also developing a new line of 150-kilogram multipurpose tactical satellites that can be rapidly built and adapted to a range of missions, and the Super Low Altitude Test Satellite (SLATS), a highly maneuverable surveillance-satellite technology platform to develop assets that can dip in and out of the atmosphere to take sharper images.

Yoshi Chihara, director of the Space Development and Utilization Division at the Ministry of Education, Culture, Sports, Science and Technology (MEXT), which controls JAXA, said the ministry is fully behind the new direction.

"Cooperation between MEXT-JAXA and MoD is strengthening," Chihara said. "The agreement on scientific and technological cooperation between JAXA and MoD is a good example of cooperation ... the [hosted payload missile sensor aboard the] Advanced Optical Imaging Satellite is a good example. Following ... the latest Basic



South Korea Focuses on Underwater Protection
April 12, 2015, 2:44 p.m.

Plan, we will continue to reinforce [our] partnership."

"I think the establishment of a space body within the MoD and its outreach to JAXA is certainly a major milestone," Moltz said.

Though a major step forward, the new policy also pulls back somewhat from commitments recommended by Imazu in August to quickly raise the annual budget to ¥500 billion to accommodate national security programs, double the IGS constellation, prioritize MDA, and put overall control of space into an agency reporting directly to Japan's new, more powerful National Security Council.

For example, the Basic Plan states no fixed commitment to the number of new IGS satellites, and lays out a two-year discussion period to sort out how and how much Japan wants to use a space-based component for MDA, despite agreement to forge ahead with the US.

"Space policy is slow in every country, so I think the US is prepared to be patient, especially when fundamentally new tasks are being asked of Japanese space organizations," Moltz said.

Imazu said that if the money can be found, on top of space-based early warning and dual-use operationally responsive space and Tacsat-type technologies under development by JAXA, Japan will also consider space-based signal intelligence and electronic intelligence satellites, both of which can be developed, perhaps with some difficulty, from prior JAXA civilian-use-only programs.

The scope of the change can be seen particularly through the now open development of programs like SLATS. Other potentially highly useful military technologies proposed by Japanese research institutions — for example, co-orbital anti-satellite weapons-convertible technologies — have failed to receive funding as proponents failed to find sufficient non-military-use justifications. Now dual-use technologies form a core component of modulating Japan's military space policy, said Chris Hughes, an expert on the Japanese military at the University of Warwick in England.

"The revised ... plan lays down a marker of intent for space-based defense needs," he said. "The most striking feature ... is the foregrounding of national security as the prime rationale, casting off the previous emphasis on civilian programs as the cover for the steady build-up of military capabilities. [T]he intended capabilities are truly impressive and many already realized."

Email: pkallender@defensenews.com