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Strategic Imperatives for US–Japan Outer Space Cooperation

BY CRYSTAL PRYOR

NASA budget cuts and the recent retirement of the space shuttle fleet have given some the impression that outer space development is no longer a priority for the United States. Yet cuts to the US civilian space program belie a growing and increasingly global recognition of the significance of outer space. Not only are satellites vital for commercial purposes, including GPS navigation and high-speed communications, but they also have important civil applications, such as weather forecasting and disaster management. Moreover, the US military depends on satellites for intelligence, missile early warning, and precision targeting, among other objectives.

Crystal Pryor, Japan Studies Visiting Fellow at the East-West Center in Washington, explains that “Japan must continue to advance its own strategic vision for space, and with the United States as a foundational partner, make good on its commitment to peaceful international cooperation.”

In Japan, a low-profile but potentially revolutionary shift has been unfolding in its approach to outer space. In 2008, Tokyo passed its first national legislation on space, the Basic Space Law. The law effectively shifted Japan’s longstanding interpretation of the “peaceful purposes” clause of the 1967 Outer Space Treaty from “non-military” to “non-aggressive” use of outer space. The significance of this reinterpretation is that Japan is now able to develop satellites and other space technology explicitly for military purposes. The Basic Space Law and the subsequent 2009 Basic Plan for Space Policy highlight the role outer space should play in Japan’s national security, and also the strategic development of Japan’s domestic space industry. To achieve these objectives, the new law changed the status of the Japan Aerospace Exploration Agency (JAXA) so that more government ministries can directly influence outer space development and allowed the Cabinet Office to set up a new Space Strategy Office, which it did in April of this year.

Challenges Ahead

The increased reliance upon outer space also presents unique security challenges. In 2007, China conducted an anti-satellite test on a defunct weather satellite, creating over 3,000 pieces of debris, and the accidental 2009 Iridium-Cosmos satellite collision generated another 2,000 pieces. This space junk threatens not only satellites, but also the International Space Station. In 2008, the United States also used a missile to destroy one of its own dying spy satellites, citing the risk of dangerous gas release if it returned to earth. Although the US satellite shooting was announced in advance and carefully conducted to minimize creation of long-lasting debris, many observers interpreted this as a reaction to Chinese actions the year before and the start of a new “space race” between the United States and China.

The extent to which the United States and China currently regard each other as competitors in outer space is unclear, but the tensions between Asian players in space are unmistakable. In addition to China and Japan, Korea and India are advancing their own space programs, and Australia is ramping up its cooperation with the United States, leading to speculation about a China containment policy. Unfortunately, Asia’s unresolved historical conflicts mean that there is little potential for cooperation between its major space-faring powers, resulting in the duplication of efforts.



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For 40 years, Japan’s space program operated on a limited budget while also eschewing military investment in outer space technology, a major component of other countries’ programs. The so-called US “Super 301” trade law provision and the 1990 US-Japan Satellite Procurement Agreement further suppressed indigenous Japanese satellite development and competitiveness. However, despite these constraints, Japan has recently been able to make major advances, including the *Hayabusa* asteroid mission and the deployment of the H-IIA and H-IIB rockets, the latter transporting domestically-manufactured transfer vehicles to resupply the International Space Station. Today, Japan is midway through deployment of satellite programs for surveillance and GPS augmentation. Japan’s current challenge is to find the right balance among competing objectives: increasing the utilization of space assets versus developing autonomous capabilities; promoting both commercial and civil applications; and using space for military but still exclusively defensive purposes.

Opportunities for Cooperation

With the tightening of fiscal budgets in many countries, there are many opportunities for fruitful collaboration, but Japan must move quickly if it wants to establish itself as a relevant actor in this arena. As an advanced and responsible space power, there are many roles it can fulfill. For example, Space Situational Awareness (SSA) is critical for space debris tracking and has a range of other applications, including promoting transparency in space activities and providing missile early warning functions. Japan can contribute to SSA, augmenting US and international sensor networks and helping with back-end data processing.

Japan’s Ministry of Defense, until recently having had no direct involvement in space projects, also stands to learn from the United States’ heightened focus on domestic interagency cooperation, joint commercial-civil projects, and international collaboration. Where the dual-use nature of space assets was once a limiting factor for Japan before the Basic Space Law, it can now take advantage of the range of applications that dual-use technologies offer, including surveillance and global positioning. Today Japan is focusing on “space diplomacy,” providing overseas development assistance in the form of satellites and space technology training packages to other countries including Vietnam, Thailand, and Mongolia. These efforts not only benefit Japanese industry, but also work to cement strategic ties with its neighbors. Also, Japan can leverage its positive international reputation as a responsible state actor to influence negotiations at the UN Committee on the Peaceful Uses of Outer Space (COPUOS) and on the creation of an international code of conduct for outer space activities.

Finally, both Japan and the United States should explore civil cooperation with potential rivals in space, particularly China. Although the sensitive dual-use nature of space technology admittedly makes such cooperation difficult and problematic, realizing stable relations between the United States, Japan, and China requires further efforts for meaningful civil exchange. Humanitarian Assistance and Disaster Relief (HA/DR) is one avenue for peaceful cooperation that could help build mutual trust and confidence. This was the case after the 2008 Sichuan Earthquake and the 2011 Tohoku Earthquake and tsunami, when the three countries shared valuable satellite data to aid in recovery operations. Asia is highly prone to natural disasters, and the United States must also respond to the imperatives of climate change. Collaboration on HA/DR operations is a pragmatic way for these countries to help the most vulnerable populations in their own countries and abroad.

Outer space will continue to have an increasingly significant role in global, national, and human security. The United States has reemphasized its engagement in the Asia-Pacific with its “Pivot to Asia,” and should recognize and expand upon the opportunities for outer space cooperation with its most important ally in the region. In turn, Japan must continue to advance its own strategic vision for space, and with the United States as a foundational partner, make good on its commitment to peaceful international cooperation.