



## Cautionary Remarks on the Emerging Bipolarity of Space Alliances: A Japanese Perspective

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One way to gauge the evolution of great power competition in the space domain is to see how the leading contenders – the United States and China – are working with others to respond to threats.<sup>1</sup> The nature of threats in and through space has evolved. We have moved well beyond the characterization of space as contested, congested, and competitive. Today, we see and talk openly about kinetic and non-kinetic weaponization and arms races in space, and the possibility of conflict involving the space domain. Stakeholders cannot – and frankly should not – any longer take it for granted that they can get to, use, and move about in space free from threats of disruption.

There is strong evidence to suggest that, today, the great powers are seeking to balance against those threats by capitalizing on the strategic concerns of their allies, partners, and friends. Their actions are leading to a bipolarity of alliances, meaning two contending sets of formal and informal alliances extending into space that also reflect the concerning geopolitics around us. On the one side there is the United States with its old postwar allies and its newfound friends, attempting to coordinate like-mindedness in cross-domain operations. On the other is China, with a grand strategy in the space domain, which has nested its ambitions for a space corridor in the customer base of its Belt-and-Road (BRI) infrastructure initiative across critical regions.

This emerging bipolarity of alliances is unlikely to lead to stability in the space domain, however. This is not just because

of uncertainty about outcomes in the strategic competition or the physical hazards of space activities. It is also because of significant uncertainties about who the great powers are able to attract and keep on their side. Even in long-standing alliances or all-weather friendships there is much ambiguity about the fate of great power efforts to have and hold their allies.

### The Case of the U.S.-Japan Alliance

Take, for example, the U.S.-Japan alliance, which is extending to outer space with an eye on balancing China and Russia. The United States, and especially the U.S. Space Force (USSF), is committed to building partnerships with allies. Its newly-minted capstone doctrine is clear on the importance of multinational partnerships to give effect to space security; its leadership is equally clear that it does not wish to go out there alone and is openly courting partnerships worldwide.<sup>2</sup>

Japan is a critical partner for the U.S., and it appears fully aligned with U.S. perspectives and missions as the alliance extends into space.<sup>3</sup> In fact, there are no official discrepancies in assessment of the threat among most U.S. allies, including Japan. Japan's leaders too must act and operate under the same realities, and official Japan acknowledges increasing threats to the stable uses of outer space. Leadership in both countries has spoken about the importance of protecting against harmful and malicious actions against space assets, and even about gaining superiority in the space domain.

Further, there are at least three indicators that suggest Japan seeks tighter space coordination with the United States.<sup>4</sup> One is that Japan's foundational space technologies position it to partner with others, including its formal ally.<sup>5</sup> The preservation and development of the full gamut of such dual-use technologies continues to be of significant interest to the Japanese government.<sup>6</sup> Japan's legal and policy frameworks now synchronize its civilian, commercial, and military uses of outer space. The 2008 Basic Space Law allows Japan to engage openly in the military uses of outer space; the 2012 change in JAXA's law allows it to engage in national security space projects with the Ministry of Defense. In the context of the U.S.-Japan alliance, Japan can leverage its space industrial base by creating technology platforms for assessing and countering threats, such as for Space Situational Awareness (SSA, or Space Domain Awareness (SDA)). Japan's QZSS satellite system, for example, will complement the U.S. GPS system, and Japan will be launching U.S. sensors on these Japanese satellites. Japan's long-standing acquisition and innovations of dual-use space technologies also means that Japan has significant counterspace capabilities, including the formidable Hayabusas.<sup>7</sup>

Another building block for the U.S.-Japan alliance is Japan's own dedicated space force called the Space Operations Squadron (SOS), which was created in 2020 as part of the Air Self-Defense Force. The SOS aims to help develop Japan's technical and human expertise to operate in space, and this will bring the two allies together as well in terms of doctrines, strategies, and operations. Japan has been engaged in the U.S.

Shriever space wargames since 2018, and is likely to continue there. Japan will be a part of the new Multinational Space Collaboration Office at Vandenberg AFB, a new unit for U.S. allies to align policies and TTPs (tactics, techniques, and procedures). A Japanese liaison officer will also be part of the U.S. space command and sit at the table as space operations are discussed. The SOS is also likely to be central for space defense cooperation with the United States, beyond the context of the alliance. And one emerging element to keep an eye on is how Japan is working to expand cooperation over SSA/SDA to other members of the QUAD, namely Australia and India.

Finally, Japan has also aligned itself with U.S.-led lunar projects. Japan signed up as a founding member to the U.S.-led Artemis accords in 2020, which will be executed as bilateral space agreements.<sup>8</sup> This agreement is designed to set up guidelines for civil and commercial activities by a set of partners, including Japan, on the moon, mars, comets, and asteroids. Japan has also signed the Gateway agreement (part of NASA's Artemis program) in 2020. Gateway is an outpost orbiting the moon to facilitate long term human presence on the moon. JAXA's budget has also increased from about \$150 million to about \$500 million to service such missions. It is not surprising that China and Russia recently also announced their space pact, designed to put a lunar base on the moon. This pact has the possibility of expanding to other pacts between China and Russia as they both own global alternatives to the U.S. GPS.

## Caution Ahead

All these things bode well for a U.S.-led side, and for countering the expanding influence of a China-centric space reality. But there are several reasons for being cautious about the role that Japan will play if the bipolar system of alliances continues to project into the near future.

First and foremost, viewed from abroad the United States in the world represents the biggest uncertainty of all. The country's domestic polarization and foreign wavering is a concern to its allies, including Japan. Japan's alliance strategy is therefore not just all about prudently positioning for the here and now under the Biden administration. It also has to be seen as positioning for what may come politically after the Biden Administration – one in which, once again, the United States may call alliances and international engagements into question.

Second, seeing Japan only as a stalwart ally of the United States and a rival of China is problematic. As with European allies, Japan is economically integrated with China, and has signed an economic pact with it along with other Asian-pacific nations, creating one of the worlds' largest trading blocs.<sup>9</sup> It is unclear what economic leadership role the U.S. will play across the region. But Japan can see that China is constructing an integrated ground to space infrastructure with its partners in the Belt and Road Initiative (BRI), a Space Information Corridor centered on its own GPS system – the operational Beidou.<sup>10</sup> Japan's geoeconomic strategy is to advantage Japan in what many hail as the coming trillion dollar space economy, and ground-to-space infrastructures will

have a hefty weight in any such scenarios. To that end, China represents an opportunity for collaboration as well, possibly through space infrastructure investment projects for the purposes of economic development and poverty reduction across Asia.<sup>11</sup> Japan has had some engagements with China in its own Asia-Pacific Regional Space Agency Forum (APRSAF) where it has the leadership capacity to help influence economic infrastructure projects and influence the course of norms and responsible behavior in space.<sup>12</sup> It also has an MOU with China's Asian Infrastructure Investment Bank (AIIB) through the Asian Development Bank (ADB).<sup>13</sup>

Finally, the United States is one of the most space-dependent countries in the world, with around 56 percent of all operational satellites at present.<sup>14</sup> With mega constellations of satellites going into place, many led by American companies, U.S. dependence on space for its economic, political, and military activities is likely to become even more acute. Japan is nowhere near as space-dependent if the only measure is owning and operating assets. Simply put, Japan does not have anywhere near as much to lose as its ally. Therefore, it may be that seeing space threats through the prism of the U.S. perspective may not be a good strategy for bringing, and keeping, allies like Japan on board in the long term.

The emerging bipolarity of alliances has shaky foundations. The ability of such a system to endure in the present geopolitical flux, much less to stabilize, the outer space domain is highly uncertain. Much depends on the two great powers, and the balance their

leadership strikes between high rhetoric and actual benefits for their intended audiences. Equally much, however, depends on the willingness of others to follow in their own interests.

*This article was drafted for a workshop at Perry World House, the University of Pennsylvania's global affairs hub. The workshop was made possible in part by the generous support of Carnegie Corporation of New York. The statements made and views expressed are solely the responsibility of the author.*

## Endnotes

1 Based on Saadia M. Pekkanen, “Unbundling Threats: Balancing and Alliances in the Space Domain,” in *The Oxford Handbook of Space Security*, edited by Saadia M. Pekkanen and P.J. Blount (New York, NY: Oxford University Press, under contract).

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