

REFLECTIONS ON SPACE GOVERNANCE BY CHINA AND JAPAN

*Saadia M. Pekkanen**

I am very glad to have the opportunity to reflect on the theme of space governance at a historical juncture in a changing world order. Governing outer space is getting harder to do, with the changing technologies in space activities, the rise of new stakeholders, and the geopolitical flux around us today.¹ We are talking about developing peaceful relations through governance frameworks in a space domain in which peace is not a given. In fact, peaceful prospects in outer space are at a low point, and outright conflict is a distinct possibility. So, it is all the more important today to think about the building blocks of space governance, and what is and is not possible if we want to avoid conflict and war in and through space.

I will be concentrating my remarks on two spacefaring countries, China and Japan, to give a regional flavor to broader global debates about space governance. China and Japan are of course not new entrants, but long-standing and established ones. They are also embedded within the global legal governing frameworks. As some of the world's top, technically competent, and politically ambitious space powers, what China and Japan do or don't do at the domestic and regional levels is also significantly likely to shape the peaceful prospects for outer space. Like all other spacefaring powers today, they too have to perform the balancing act between encouraging democratization, boosting commercialization, and containing militarization. This is where space governance needs to situate itself, with attention to the role of states and industrial strategies, including national interests in strategic dual-use sectors like space. Given their pivotal status in the world order today, the interests of the Japanese and Chinese states are especially pivotal as a handful of the world's top and independent space powers who back and consume technologies, make strategies and policies, and, of interest here, put their own designs on governance.

* Saadia M. Pekkanen is the Job and Gertrud Tamaki Endowed Professor in the Henry M. Jackson School of International Studies, Adjunct Professor of Law, and the Co-Founding Director of the Space Policy and Research Center (SPARC) at the University of Washington. She thanks the Center for Global Partnership (CGP) for financial support on this project. She can be reached at smp1@uw.edu.

¹ Paul B. Larsen, *Outer Space: How Shall the World's Governments Establish Order Among Competing Interests?* 29 WASH. L. REV. 1, 1–60.

With this context in mind, I want to reflect on three interrelated questions. First, to begin with, what is governance? I draw on long established thinking in international relations as well as international law to say that for stakeholders in the space domain, this broadly means formal and informal laws, institutions, processes, and practices that structure relations, stabilize expectations, guide and restrain behavior, and frame policy responses. In theory, governance is meant to develop a common legal and policy understanding that can provide predictability, clarity and consistency for all players.

If the aim of states is to use space peacefully based on a set of principles in governing frameworks, their efforts to do so are complicated by the deeply intertwined forces of democratization, commercialization, and militarization I noted at the start.² Democratization has brought new and varied players into the game, who don't necessarily see eye to eye on where space governance or legal interpretation should head. Commercialization has brought in a new generation of technology entrepreneurs bent on profiting all the way to off-world settlements, often backed by law and policy from their home governments pitted against those of other equally determined governments. Militarization affects national security architectures, postures, and warfighting supremacy, and today it is moving towards outright weaponization, with ASAT testing out in the open. Just think of China in 2007, USA in 2008, and India in 2019, and Japan too has a history of testing counterspace technologies.

What all this means is that despite the rise of a new generation of exciting new players and entrepreneurs and activities, outer space affairs are still rooted in the geopolitics around us. Peaceful prospects in outer space are at risk today because of how all states—including China and Japan—are bending their dual-use space technologies and trajectories far more rapidly in the direction of militarization, and frankly outright weaponization. Great powers, concerned with their rise and decline in the world order, see space as an amplifier for their power and are restructuring their civilian, commercial, and military strategies to gain supremacy in space. This trend affects even companies that started out with bold visions for commercialization but who are turning to defense contracts to survive. Meanwhile, from the perspective of governance, we also see worrying trends of treaty stasis, decline, and even exit more broadly that may also end up infecting the global legal outer space regime we have in place today.

Second, in this tumultuous mix, what do regional efforts by space powers like China and Japan add to the prospects for the peaceful governance of outer space activities? It helps to understand what these two countries have done to date in terms of shaping the governance of space activities.

Since the early 1990s, each country has taken a keen interest in shaping the governance of outer space activities through the creation of indigenous

² Saadia M. Pekkanen, *Governing the New Space Race*, 113 AM. J. INT'L L. UNBOUND 92, 92–97 (2019).

institutions that resonate especially at the regional level. Both countries stress a peaceful and cooperative vision and the importance of socio-economic development. But they have done so through remarkably different institutional types, which call into question Asian states' supposed preference for soft and informal international forums for governance all the time.³ I will take each of these institutions⁴ in turn and also identify strengths and shortcomings in each.

Japan has led the Asia-Pacific Regional Space Agency Forum (APRSAF), involving both state and non-state participants, which is guided by a set of principles.⁵ It dates back to 1993, and its signature event is the annual meeting in the Asia-Pacific region with a quarter-century track record. It is billed as the largest space-related conference of its type with both public and private stakeholders.⁶ Four specific working groups feed into the information clearinghouse of the annual meeting and form the basis for engaging participants in a wide variety of projects: specifically Space Application, Space Technology, Space Environment Utilization, and Space Education.⁷ APRSAF is essentially a dialogue-based platform, attracting lots of participants. It has an open and flexible cooperative framework, voluntary and cooperative activities, and focuses on solving regional issues that draw on the thematic foci of the working groups. As of November 2017, its participants included 727 organizations from forty-six countries and regions, and twenty-eight international organizations.⁸ As an institutional type, APRSAF is an informal organizational structure with soft rules. But it has made some moves toward formalizing its procedures, with the formation of an executive committee (Ex-Com) in 2012 and a set of principles (again voluntary) in 2013.⁹ Japan is in a leadership role but an understated one. There are no clear underlying rules such as a charter or identifiable headquarters, or a sense of where APRSAF is headed in the region's political realities.

³ See ASIAN DESIGNS: GOVERNANCE IN THE CONTEMPORARY WORLD ORDER Table 1.1 (Saadia M. Pekkanen ed., Cornell Univ. Press 2016) for an institutional typology based on legal rules and organizational structures that brings a wide variety of governance mechanisms under one analytical rubric [hereinafter ASIAN DESIGNS].

⁴ For earlier works on these institutions, see JAMES CLAY MOLTZ, *Asian Space Rivalry and Cooperative Institutions: Mind the Gap*, in ASIAN DESIGNS, *supra* note 3, at 116–134; GLOBAL SPACE GOVERNANCE: AN INTERNATIONAL STUDY 65–86 (Ram S. Jakhu & Joseph N. Pelton eds., 2017).

⁵ See basic information about APRSAF, its annual meetings, and participants at APRSAF, <https://www.aprsaf.org/> (last visited Mar. 23, 2020).

⁶ *About*, APRSAF, <https://www.aprsaf.org/about/> (last visited Mar. 23, 2020).

⁷ APRSAF, ASIA-PACIFIC REGIONAL SPACE AGENCY FORUM, https://www.aprsaf.org/about/leaflet/APRSAF_leaflet_en.pdf (last visited Mar. 27, 2020).

⁸ *Countries and Regions*, APRSAF, <https://www.aprsaf.org/participants/> (last visited Mar. 27, 2020).

⁹ ASIA-PACIFIC REGIONAL SPACE AGENCY FORUM (APRSAF) TASK FORCE FINAL REPORT, APRSAF Annex III, [https://www.aprsaf.org/about/pdf/TF_Report_\(Final-13Dec12\).pdf](https://www.aprsaf.org/about/pdf/TF_Report_(Final-13Dec12).pdf) (last visited Mar. 27, 2020).

China has opted, in contrast, for a high-profile formal intergovernmental design, the Asia-Pacific Space Cooperation Organization (APSCO).¹⁰ This was established in 2008, giving it a track record over a decade old (but it dates its origins to a 1992 MOU, and even before that to an idea among China, Pakistan and Thailand in 1988 for multilateral cooperation in the Asia-Pacific).¹¹ Like APRSAF, APSCO has thematic foci on broad issues that allows for the set up of a variety of activities and engagements: education and talent training with universities; cooperative networks on space technology, applications and so on; knowledge-sharing platforms such as on law and policy; and cooperation with international organizations.¹² As an institutional type APSCO is a formal intergovernmental organization with hard rules set out in a Convention, and China is in a dominant leadership position with a headquarter in Beijing.¹³ Eight states signed the Convention of the Asia-Pacific Space Cooperative Organization (APSCO) in October 2005, and with the exception of China none of them are prominent space powers with strong industrial bases.¹⁴ Aside from China, the original signatories were Bangladesh, Indonesia, Iran, Mongolia, Pakistan, Peru, Thailand, with Turkey signing on in 2006.¹⁵ But in all APSCO still only has eight formal member states in 2020, with Indonesia not yet identified as a Member State but only as a signatory state and Mexico as an observer state.¹⁶ Despite its foundational rules and leadership clarity, it remains to be seen whether APSCO will expand to other formal members, and if so, who those might be. Like APRSAF its role in regional and extra-regional settings remains a work in progress.

Third, where does all this leave us in terms of the prospects for the peaceful—or more sensibly cooperative—governance of outer space in the years ahead? There are always headline news about the rivalry between Japan and China, and you might think this is affecting their completely distinct and separate efforts at space governance, but the picture is more complicated in reality. It also offers glimmers of hope if we focus on engaged practice and not just abstract principles in a political context.

¹⁰ For the background information on APSCO, see APSCO, <http://www.apsco.int/> (last visited Mar. 23, 2020).

¹¹ *History Trace*, APSCO, <http://www.apsco.int/html/comp1/content/historytrace/2018-06-26/21-153-1.shtml> (last visited Mar. 27, 2020).

¹² *About APSCO*, APSCO, <http://www.apsco.int/html/comp1/content/WhatisAPSCO/2018-06-06/33-144-1.shtml> (last visited Mar 27, 2020).

¹³ APSCO, *supra* note 12; *APSCO Structure*, APSCO, <http://www.apsco.int/html/comp1/content/APSCOstructure/2019-02-28/68-258-1.shtml> (last visited Mar. 27, 2020).

¹⁴ APSCO, CONVENTION OF THE ASIA-PACIFIC SPACE COOPERATION ORGANIZATION (APSCO), <http://www.apsco.int/upload/file/20180525/2018052510341620388.pdf> (last visited Mar. 27, 2020).

¹⁵ *Id.*

¹⁶ APSCO, *supra* note 12.

The policy considerations draw attention to the shifting nature of Japan-China relations, one that is seeking more collaboration. Frankly, if you don't also keep your eye on the political and policy context, all the law and the governance in the world is not going to matter. The present leadership of both countries—Shinzo Abe and Xi Jinping—have called for a “new era” of Japan-China relations,¹⁷ and analysts have begun to point to a thawing of relations between the two countries. While it sounds like high rhetoric that has a long way to go, I would say the search for a new Sino-Japanese era is taking place in a context that is very different from before. We are in a world order where perceptions of American unpredictability and wavering commitments to regional stability have gained ground—concerns voiced even by influential players in Japan,¹⁸ America's formal ally in the region.

I think we all probably agree that we are not going to be getting any new global multilateral treaties any time soon in outer space. With the changes in Sino-Japanese interactions, the question is do the present mechanisms of APRSAF and APSCO present us with concrete legal bases for thinking about governance mechanisms. My point of departure here is that as the Chinese and Japanese states seek to govern outer space directly through indigenous institutions their efforts are also embedded in a global framework in which they have legal obligations to uphold. These realities present an opportunity. There are building blocks in place—some also in these two institutions—that may facilitate small and voluntary move towards greater collaboration among these two countries in the space domain.

At the international level, in response to a proposal in 2012 by the United States, and cosponsored by China, Japan, Ecuador, Peru, and Saudi Arabia, the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space (COPUOUS) agreed to undertake a “review of international mechanisms for cooperation in the peaceful exploration and use of outer space.”¹⁹ The review suggested these mechanisms can take a variety of forms, such as multilateral or bilateral, legally binding or not, for example.²⁰ This notable variation has led to a better—and more pragmatic—appreciation of how cooperation can be customized based on basic legal principles of specific interest to states.

¹⁷ Xi, *Abe Agree to Build China-Japan Relations in Accordance with Needs of New Era*, XINHUA (June 28, 2019), http://www.xinhuanet.com/english/2019-06/28/c_138179475.htm.

¹⁸ Mark Landler, *As Next Trump-Kim Summit Nears, Japan Worries U.S. Will Leave It in the Dark*, N.Y. TIMES (Jan. 23, 2019), <https://www.nytimes.com/2019/01/23/world/asia/shinzo-abe-north-korea-trump.html>.

¹⁹ See Setsuko Aoki, *Models for Coordination and Cooperation: Bilateral and Multilateral Agreements 1–35*, Presentation at the 10th United Nations Workshop on Space Law (Sept. 7, 2016), https://www.unoosa.org/pdf/SLW2016/Panel4/3._Aoki_10th_UN_Space_Law_WS_S._Aoki7_Sept_2016Panel_4.pdf.

²⁰ *Id.* at 11–15.

This same mode of thinking applies to regional mechanisms for facilitating cooperation, such as APSCO and APRSAF. As I noted above, they are constituted as very distinct and different institutional types. But as you never know across this diverse landscape just what can become a building block for cooperation or manifest as collaboration, here are the more important points.

The institutional type for China's APSCO's is a formal inter-governmental organization, with a hard-rules convention, the APSCO Convention.²¹ Article 24 of the APSCO Convention provides a possible building block for cooperation with other organization, first and foremost with agencies in the United Nations system and particularly COPUOUS.²² Article 24.2 of the Convention of APSCO also leaves the door open for APSCO to build "cooperative partnerships" with those who are not member states as well as "other international organizations and institutions in pursuit of its objectives"—say, APRSAF—as long as doing so has the unanimous approval of, and appropriate guidelines and procedures from, the APSCO Council.

As an institutional type, Japan's APRSAF is an informal organization with soft rules, principles, and practices that are reflected in its annual signature conference. One notable engagement came with APSCO in its latest conference, APRSAF-26, held in November 2019 in Nagoya Japan.²³ Along with other delegations from national space agencies, governments, international and regional organizations, universities, and industries, the delegation from APSCO attended the conference. In practice, this meant it attended various working groups, sharing opinions and working out common interests.

Looking ahead, the project-based possibilities for cooperation also come out of the thematic foci of the working groups of both APSCO and APRSAF noted above. The working groups can provide a basis for thinking about or advancing applications related to say orbital debris removal or the proliferation of small satellites and big data. And from that kind of operational content, the two institutions can also help affect practices and possibly affect norms related to significant pockets of outer space activities that may be brewing mistrust or problems between countries around the world. At the very least this is worth thinking about if, as I said at the start, we are interested in the peaceful governance of outer space.

Finally, let me say that we cannot predict anything with cookie-cutter precision about the shape and kind of cooperation that is likely to emerge whether between China and Japan or others. At the very least, we need to think about how various institutional types can help bring it about, with sensitivity to the political context. And here I want to leave you with some reflections about governance in the next fifty years by going back about fifty years to the start

²¹ See the provisions of the APSCO Convention at ASPCO, *supra* note 14.

²² *Id.* at Article 24 (Cooperation With Other Entities).

²³ *APSCO Delegation Attended APRSAF-26*, APSCO (Dec. 19, 2019), <http://www.apsc.o.int/html/comp1/content/NewsHighlights/2019-12-19/54-341-1.shtml>.

of the old space race, and to a wise observation about what we can expect as we move into uncharted territories:

One may indeed expect with rather more confidence a series of agreements . . . The modes of reaching such agreements cannot be charted with any precision. Some agreements may be explicit and formal; some may be simply a consensus achieved by the gradual accretion of custom from repeated instances of mutual toleration. Some may be bilateral, other tri-lateral or multilateral; some may be within the framework of the United Nations, others within some other existing organization or some machinery yet to be set up. Their details and sequence must, like much else in an indeterminate universe, depend on the order of experience in space as well as on the changing political context.²⁴

²⁴ Myres S. McDougal & Leon Lipson, *Perspectives for a Law of Outer Space*, 52 AM. J. INT'L 407, 429–30 (1958).