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INTERNATIONAL COOPERATION: THE KEY TO SPACE SECURITY

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Since the earliest stages of space law international cooperation has been a keystone in the legal structure designed to promote space security. This intent can be seen in the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space[1] which were later codified into the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (Outer Space Treaty).[2] During the negotiations of these instruments a primary concern was protecting the national security of States, while at the same time increasing international peace and security for all States. The hostile relationship between the United States and the Soviet Union cannot be over emphasized. Both States had definite interests in protecting their perceived strategic advantages and thereby protecting their own national security, but both States also saw the utility in using space to enhance international peace and security. As a result the international cooperation mandates were written into the Outer Space Treaty, but are written in a weak manner so as to allow States to pursue their own national security goals. Despite the soft language used, international cooperation has become the linchpin of space security.

This paper will explore the historical motivations for the use of international cooperation as the keystone in maintaining space security. Then it will move to how these mandates have become crucial in the geopolitical landscape that now characterizes space activities. Finally, it will discuss national space law and policies and how States are using these principles to increase space security while maintaining their own national security objectives.

I. Historical Development

The details of the early space race are well known, and will not be repeated here in great detail. Suffice it to say that at the dawn of the space age there was great tension between the United States and the Soviet Union, which was being dramatically heightened by the development of smaller and more deadly atomic weapons. The innovation of a rocket that could lift a craft into orbit was a critical step in both space exploration and nuclear warfare, thus the State that mastered the technology first was in a position of strategic advantage over the other. Additionally, both States were attempting to align third party States as allies and the control of high technology was critical to this diplomatic mission.

Despite this standoff, neither State desired an armed conflict with the other (thus the moniker Cold War). Therefore, almost immediately after *Sputnik*, negotiations began at the United Nations to create legal principles that would govern outer space and normalize and stabilize interactions among States acting therein, with particular attention given to interactions between the United States and the Soviet Union. The beating heart in the body of this new body of law was international cooperation.

The 1962 Declaration of Legal Principles included the concept of international

[1] Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, G.A. Res. 1962, U.N. GAOR, 18th Sess., Supp. No. 15, U.N. Doc. A15515 (1964).

[2] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, Jan. 27, 1967, 610 U.N.T.S. 205 [hereinafter Outer Space Treaty].

cooperation in principles 4 and 6, which later became Articles III and IX of the Outer Space Treaty, respectively. Article III of the Outer Space Treaty requires states to conduct activities "in the interest of
maintaining international peace and security and promoting international cooperation
and understanding."[3] Article IX requires that States "shall be guided by the principle of cooperation and mutual assistance" in conducting their space activities.[4] Additionally, the Outer Space Treaty calls for specific types of cooperation such as assistance in rescuing astronauts[5] and numerous information sharing regimes.[6] These international cooperation provisions though are rarely couched in terms that render them as hard law requirements.[7] For instance, Article IX does use the auxiliary verb "shall" but the verb following it is "be guided."[8] "[B]e guided" is not a particularly strong verb and gives States a great deal of leeway in interpreting what their international obligations are under Article IX. In other words the obligation that Article IX creates in this phrase is that States shall take into account international cooperation in space activities as opposed creating an obligation that they shall actually cooperate. This also holds true for information sharing obligations, for instance Article XI requires information about space activities to be shared "to the greatest extent feasible," which also gives States a great deal of room in requiring what sort of information will be shared.[9] These types of provisions essentially memorialize the purpose, yet create softer obligations in order to achieve that purpose. This is done so that States can maintain their own national security goals.

At the same time though, the States involved during this period saw the utility in pursuing such goals in their exploration and use of outer space. While pursuing national security and defense goals, States very often took part in data exchanges and other forms of international cooperation.[10] They engaged in these activities based on the knowledge that cooperation could lead to a more peaceful existence in outer space and that it could even help ease tensions between States terrestrially. A good example of such diplomatic uses of space is the Apollo-Soyuz mission of 1975. This mission involved the docking of an Apollo capsule with a Soyuz capsule on orbit. It represented a great feat of not only technical cooperation,[11] but also of diplomatic cooperation.[12] Indeed the event can be seen as representative of the international cooperation as envisioned in the Outer Space Treaty.

II. A New Geopolitical Context

Today's space environment faces different security challenges than those being contemplated during the negotiation of the

[3] *Id.* at art. III.
[4] *Id.* at art. IX.
[5] *Id.* at art. V.
[6] *Id.* at art. IX, X, XI, and XII.
[7] It should be noted that the terms "hard" and "soft" will be used in this paper not to represent the difference between binding international law and nonbinding international agreements, which the terms are often used in relation to. Instead it represents the more nuanced difference between "shall" type requirements in treaties and provision that call for a lower standard of compliance. As part of a binding treaty the provisions being discussed do create international obligations, however these obligations when couched in softer terms require a lesser degree of compliance and are more open to interpretation by States.
[8] Outer Space Treaty, *supra* note 2, at art. IX.
[9] *Id.* at art. XI.
[10] *See for example* Memorandum of Agreement Between the United States of America and the Russian Federation on the Establishment of a Joint Center for the Exchange of Data from Early Warning Systems and Notifications of Missile Launches (JDEC MOA), June 4, 2002.
[11] One of the major technological advances from this cooperation was the development of a docking system between Soviet and American spacecraft. This docking system was an important step in developing the ability of States to carry out joint space missions such as the *International Space Station* (*ISS*), and it facilitated the rescue of astronauts if needed. *See generally* EDWARD CLINTON EZELL AND LINDA NEUMAN EZELL, THE PARTNERSHIP: A HISTORY OF THE APOLLO-SOYUZ TEST PROJECT (NASA Special Publication-4209).
[12] JAMES CANAN, WAR IN SPACE 4-5 (1982)

principle space treaties. Instead of two symmetric world powers both vying for supremacy in space, as during the Cold War, the space environment is now populated by a variety of actors on disparate footing with one another.[13] Additionally, the goals and motivations of these actors also vary dramatically. Thus the same issues that once led to security threatening destabilization in space are no longer relevant. In today's geopolitical climate space is populated by a number of relatively new actors. Some of these could be identified as possible spoilers in that there is potential for them to exploit the weaknesses of the space environment in order to gain strategic advantage over an adversary.[14] Others are simply interested in harnessing of space's unique capabilities to enhance the life of their citizens.[15] And still others are participating in the same sort of technological race that the Soviets and Americans engaged in during the space race.[16]

Numerous commentators have endorsed renegotiating the treaty regime in order to deal with the changing technological landscape as well as the changing geopolitical regime. Such renegotiation could have deleterious effects on the space environment.[17] While the treaty regime is far from perfect, particularly in the realm of security matters, it does contain basic core principles that are crucial to maintaining a secure space environment. Changing technological and geopolitical situations give the international community the unique opportunity to re-engage with these principles in order to continue to maintain space as a realm for peaceful activity. However, this re-engagement requires States to act in good faith towards such ends.

The principle of international cooperation is chief among those set out in the early days of space law that seeks to normalize relations among States in space. As already stated this principle is often seen in data-sharing provisions. This was crucial during the time of negotiations because of the propensity for outer space activities to resemble activities related to the launching of intercontinental ballistic missiles (ICBMs).[18] While much of that particular fear has dissolved, information sharing is still vital in order to maintain space security. An example of this is the space debris problem, which can fairly be characterized as one of the single largest security issues in space. Space debris has in recent years been caused not just by States being careless in what they put into space, but by major debris creating events, which have dramatically increased the amount of debris in space.[19] These events might have been avoided or mitigated if there was a better data sharing regime in place. Transparency in space activities can lead to trust among those utilizing outer space.

This is not to say that international cooperation is a heal all for security problems in space. Some States will likely still exploit the space environment to their own ends. For instance North Korea will likely still try to use its space program as camouflage for clandestine missile development. The fact is that the world is a complicated place, and security concerns for States come from issues outside space. Space security is only a component of any State's overall security concerns. The potential for spoilers exists in any security arena, and no single international instrument can hope to eradicate all threats from all outliers.[20] The space regime though, with international cooperation as its heart and soul can help to

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[13] *See* P.J. Blount, *Transparency and Confidence Building Measures: Space in an Asymmetric World*, in PROCEEDINGS OF THE INTERNATIONAL INSTITUTE OF SPACE LAW (2008).

[14] Iran and North Korea might be examples of these sorts of States.

[15] Japan's current posturing in space is indicative of this sort of State.

[16] China and India are States in this position.

[17] *See generally* Joanne Irene Gabrynowicz, *The Outer Space Treaty and Enhancing Security*, in BUILDING THE ARCHITECTURE FOR SUSTAINABLE SPACE SECURITY 113 (UNIDIR 2006).

[18] It should be noted that there is speculation that space activities carried out by Iran and North Korea are veiled ICBM development projects.

[19] Specifically one can point to the *FY-1C* satellite intercept by China and the *Iridium-Cosmos* collision.

[20] For instance, the Convention on the Prevention and Punishment of the Crime of Genocide has failed to eradicate genocide.

mitigate such threats and may be the best system available for this purpose. The sharing of data can help States identify when a real threat exists, so as to avoid false alarms and heightened security situations. Furthermore, international cooperation in the form of technical assistance can help States extend their influence to possible outliers and engage them in such a manner that they can be prevented from becoming a security threat in space.

III. International Cooperation at the National Level

The idea of international cooperation is becoming more and more popular as a central part of national space policies. This can be seen in both the recent Japanese space policy as well as the most recent American space policy.

The Japanese space policy, *Basic Plan for Space Policy: Wisdom of Japan Moves Space*, was released in 2009.[21] It contains six pillars that Japan will build its space program around; the third pillar is titled "Promotion of Space Diplomacy." [22] This pillar embraces the idea of international cooperation. Japan's policy identifies several areas that Japan's technology can be applied in specific efforts at international cooperation. It also specifically states that "even though the international rules for space have been established at international fora . . . there are new challenges such as measures to space debris . . . and future challenges of ascription of natural resources of the moon and space traffic management."[23] The policy acknowledges that in order to solve such problems it is crucial that Japan "proactively participate in formulating international rules for space."[24] Japan is clearly acknowledging its duty under international law to engage with other States on cooperation issues, specifically on security related issues.

The new America Space Policy, which was released earlier this year, also highlights international cooperation as one of its core values. The first principle set out in the policy is:

> It is the shared interest of all nations to act responsibly in space to help prevent mishaps, misperceptions, and mistrust. The United States considers the sustainability, stability, and free access to, and use of, space vital to its national interests. Space operations should be conducted in ways that emphasize openness and transparency to improve public awareness of the activities of government, and enable others to share in the benefits provided by the use of space.[25]

This acknowledges the international character of space and encourages transparency as a value. The policy then follows up by setting as one of its goals :

> **Expand international cooperation** on mutually beneficial space activities to: broaden and extend the benefits of space; further the peaceful use of space; and enhance collection and partnership in sharing of space-derived information.[26]

Additionally, the policy includes an entire section on international cooperation. Very much like the Japanese policy it sets forth an affirmative duty to engage in creating new international instruments to help secure space.

IV. Balancing National Security

A secure space environment does not always mean that a State is doing what it needs to do to ensure its own national security. In fact neither of the two space policies examined abandon using space to secure their national interests. The United States policy even goes so far as to include Collective security in its international cooperation section.[27] The legal

[21] Strategic Headquarters for Space Policy, Basic Plan for Space Policy: Wisdom of Japan Moves Space (June 2, 2009) *available at* http://www.spacelaw.olemiss.edu/library/space/Japan/policies/2009-6-2%20-%20basic_plan.pdf.

[22] *Id.* at 8.

[23] *Id.* at 10.

[24] *Id.* at 10-11.

[25] National Space Policy of the United States of America 3 (June 28, 2010).

[26] *Id.* at 4.

[27] *Id.* at 6.

obligation of international cooperation does not require a State to place national security issues above space security issues. This is one of the main reasons for soft language used in the treaty formulations of the principle. It does, though, require a good faith effort to engage, or in terms of the Outer Space Treaty's Article IX to use "due regard" when dealing with other States.[28] A balance between national security and space security must always be maintained by States engaging in space activities. However, national security can be enhanced by international cooperation. For instance, the Hague Code of Conduct is a perfect example of this of net increase in security.[29] It requests that subscribing States exchange data on space and ballistic missile launches. Via this mechanism States are to engage in a transparent discourse on technologies leading to greater security for all States involved.

IV. Conclusion

International Cooperation is a crucial part of the space law regime meant to help secure outer space and avoid destabilizing situations. It is important that it be used as the current geopolitical make-up of space actors continues to change. It requires States to work toward mechanisms that allow them to communicate with each other in order to mitigate risk in the space arena. As more States begin to use space it is important that transparency and cooperation be the keystones in space security law. Through these mechanisms space security can be enhanced and the continued use of outer space for peaceful purposes can be realized.

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[28] Outer Space Treaty, *supra* note 2, at art. IX.

[29] International Code of Conduct against Ballistic Missile Proliferation (ICOC) (Nov. 25, 2002) *available at* http://www.armscontrol.org/documents/icoc.