The State of and Prospects for Space Governance: A Critical Deliberation

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The current conditions of the international system permeate the degradation of effective multilateral governance and encourage unilateral norm-shaping and bilateral governance arrangements between state actors in outer space. Moreover, the divergence between the United States, Russia and China across issues of celestial resource use, legal principles, militarisation, and norm shaping has promoted escalatory geopolitical strategic narratives and obstructed the effective international governance of space. This paper offers a critical deliberation on the state of space law and governance. It does not offer solutions, but underlines the stagnation, failure and prospects – both positive and negative – for the contemporary governance of space.

The following examination of space law will begin by summarising the custodian institutions and treaties as well as the multilateral system which upholds them and how stagnation threatens to diminish its ability to address new challenges. Following, the Conference on Disarmament (CD), its shortcomings and the escalatory geopolitical narratives used by states to permit militarisation will then be critically addressed. The role of non-state groups, their successes and continued efforts in codifying space law and maintaining the principles of the treaties through norm shaping agreements will be discussed. Finally, the takeover of governance by great spacefaring powers will be considered, how their unilateral norm shaping, coalition building, and bilateral agreements are an attempt to disproportionately alter the governance of space.

The investigation asserts the thesis that great powers are exploiting the stagnation of effective multilateral governance, the failure of the CD and the consequent militarisation of space to unilaterally shape space governance. Non-state stakeholders are increasingly influential in the development of space law, while the ability to participate in governance by non-space fairing nations is in decline. The future of space governance is increasingly less international and characterised by coercion, coalition building and the pursuit of hegemony.

The Treaties and the Stagnation on Multilateral Governance

When American astronauts first landed on the moon, they brought with them a plaque inscribed with the words “here men from the planet Earth first set foot upon the Moon July 1969, A.D. We came in peace for all [hu]mankind.”[1] The inscription not only foreshadowed the ensuing decades of positive Russo-American cooperation following the space race, but framed the nature of space governance and law which states had collectively come to adopt.

The governance of space, despite concerning extra-terrestrial matters, remains very much grounded in the international system of terrestrial states. Much like international law, the United Nations, specifically, its Office of Outer Space Affairs (UNOOSA) is the custodian of space law and convener of multilateral efforts to continue its evolution.[2] The 1967 Outer Space Treaty (OST) was the first and remains to be the most prominent of four widely adopted and ratified agreements concerning activities in space.[3]

States have traditionally reinforced this precedent of multilateral governance and adherence to the OST which under article one, established the principle that “the exploration and use of outer space be carried out for the benefit and in the interests of all countries and shall be the province of all [hu]mankind.”[4] This liberal understanding of outer space

as a province for all humanity, is complimented by the OST and its accompanying agreements. Further commitments include the freedom of exploration, the protection of astronauts, the responsibility and liability of states for their national activities, the exclusive use of celestial bodies for peaceful purposes, the prohibition of weapons of mass destruction and the yielding of the right of national appropriation or claims of sovereignty.[5]

50 years on, the OST remains uncontested, in fact it is constantly reaffirmed by both unilateral action,[6] as well as multilateral mechanisms.[7] However, as states cannot appropriate or claim celestial bodies, its provisions fail to clarify the legality of certain activities, an example of this is highlighted in the Space Resource Report, the "OST provides insufficient guidance for regulating space mining operations on celestial bodies."[8] This is the source of much setback regarding effective multilateral governance.

The 1979 Moon Agreement was a follow up to the OST which comprehensively considered the governance and use of resources on celestial bodies.[9] However, it is adopted by only 11 states and has failed to gain widespread international acceptance for two reasons. First, the Moon Agreement is incomplete, Article 11 necessitates the establishment of an Implementation Agreement to create a legal framework for the governance of activities on the Moon, this does not exist.[10] The agreement also espouses the principle of space not just as the province of humanity – where human activity occurs – but as the common heritage of humanity, where the benefits of commercial activity "must in principle be shared equitably by all [hu]mankind."[11] The spacefaring great powers, America, Russia and China were largely discouraged by this common heritage principle and rejected the Moon Agreement.

The Moon Agreement initiated a period of stagnation in the evolution of multilaterally led space law which has not yet been overcome and is widely considered by American scholars and officials to have been detrimental to private activity in space.[12] However, international intelligentsia has not yet given up on the agreement with the Space Treaty Project, a non-state collection of stakeholders presenting a Model Agreement as a prospective solution to criticisms of the Moon Agreement.[13] The UNOOSA Committee on the Peaceful Uses of Outer Space (COPUOS) has likewise revisited the Moon Agreement as a basis for future regulatory frameworks.[14] The US strongly opposes these efforts, Executive Order: 13914 expresses the US intentions to "object to any attempt to treat the 1979 Moon Agreement as expressing customary international law."[15]

The question of resource usage on celestial bodies is a highly contested issue regarding contemporary space law, the Moon Agreement evidently deepens divides on this issue as much as is represents the struggle of COPUOS to convene effective multilateral governance shaping. However, it is the forum of the Conference on Disarmament where multilaterally led space law has seen its greatest setbacks.

The Conference on Disarmament, Geopolitics and Narratives of a Warfighting Domain

The Conference on Disarmament established in 1985 an ad hoc committee to consider a Proposed Prevention of an Arms Race in Space (PAROS) Treaty.[16] The objective of the treaty was to compliment the OST, preserving "space for peaceful uses by prohibiting the use of space weapons, the development of space-weapon technology, and technology related to missile defence."[17] However, the committee saw little success until 2008 when China and Russia jointly submitted a draft Prevention of Weapons and Threat of Force treaty (PPWT).[18] Despite these efforts, the PPWT draft prompted US refusal to negotiate on the basis that arms control cannot be verified effectively due to the dual use nature of space activities.[19] Dual use referring to the similar capabilities of both commercial and military systems, and the means to use them both interoperably.[20]

The failure of multilateralism in the CD at the hands of great power competition has relegated the PAROS treaty to insignificance and compelled the US to instead pursue voluntary transparency and confidence building measures via bilateral cooperation.[21]

It is of note that in the early 2000's at the time of PAROS, US global hegemony was unquestioned,[22] and the psychological impact of this unilateral supremacy became evident in the works of strategic thinkers of the era. Everett Dolman was prominent among these scholars for considering space through the lens of geopolitics and establishing a case for the imperial prerogative of the United States[23] to maintain global dominance by space power. In his work

Astropolitik, Dolman impresses a familiar phrase, “who controls low-earth orbit controls near-Earth space. Who controls near-Earth space dominates Terra. Who dominates Terra determines the destiny of humankind.”[24]

The American adoption of geopolitical concepts in space affairs has since become global and the view of space as the ultimate strategic high ground[25] and a warfighting domain[26] is now prolific in contemporary security discussions from China[27] to India.[28]

Nonetheless, as the initiator in spoiling the PAROS treaty,[29] America’s widely accepted narratives of space militarisation in response to Russian and Chinese escalations[30] are deserving of a more critical analysis. For example, the US Department of Defence 2020 Defence Space Strategy Summary earned serious criticism from the Russian Foreign Ministry, “it clearly sets the ultimate goal of securing the United States’ military dominance in outer space.”[31] Further comments reflected a long held grievance with US commitments to space arms control, “Naturally, the Americans don’t want any talks on a legally binding international instrument to prevent an arms race in outer space, which Russia, China and most of other members of world community insist on”[32] These concerns are dependably neglected by both the US and its allies.

France, Israel,[33] Japan[34] and more independently, India[35] have shadowed US efforts to develop ‘active defence’ capabilities to deter hostility against their vulnerable assets in space.[36] Russia and China for their part, although officially denying it, have developed extensive counterspace capabilities to degrade and deny the use of orbital space, these ranging from orbital and ground based kinetic weapons to electronic jamming and spoofing capabilities.[37] In effect, although strategic narratives hypocritically point to an arms build-up for the sake of defence, these capabilities are realistically a means to supremacy.

Looking back, Russia’s predecessor, the Soviet Union was the first nation to effectively weaponize space with the armed Salyut 3 station and the attempted launch of the Polyus orbital weapons platform.[38] Although never stepping over the line of placing weapons in space, the US vision for space likewise is and always has been one which presented a path to continued hegemony. As Vice President Lyndon B Johnson attested to in a 1959 Senate hearing, “Control of space means control of the world,”[39] Vice President Mike Pence stated in 2018 that, “It is not enough to have an American presence in space; we must have American dominance in space.”[40]

The fracturing of multilateralism on arms control is a consequence of great power competition and escalatory strategic narratives between the US and its allies,[41] as well as Russia and China. Russia has signalled its close partnership with China and its parting with the US in future civil space activities.[42] Meanwhile, America is acting on the reality that “Washington can better ensure its dominance in space if it more fully embraces its allies.”[43] Cooperation in militarisation, to the detriment of arms control and the CD PAROS treaty is one means to pursue this dominance, much to the detriment of other states. But contrary to such state-based militarisation, non-state stakeholder groups have actively maintained the principles of the treaties in their activities, and, have acted in the best interests of the international community.

Non-State Caretakers of Space Law

In the absence of effective multilateralism to establish new rules and treaties covering space activities, non-state led norm shaping, and voluntary agreements have become the primary means to affect the governance of space. The system of voluntary agreements has seen great success, with the acceptance of manuals codifying contemporary space law, as well as voluntary code of conduct and shared principles agreements by important stakeholder groups.

Non-state groups have played an essential role in articulating and clarifying contemporary practices and the interpretation of existing space law (lex lata) and treaties.[44] Two legal manuals established by legal experts and stakeholder groups exist, the Woomera Manual on the International Law of Military Space Operations[45] and the Manual of International Law Applicable to Military Uses of Outer Space.[46] However, it is in regard to future law (Lex ferenda) where non-state activity has had the greatest influence on governance.

The shaping of lex ferenda through voluntary norm-shaping agreements has been spearheaded by both IGO’s and

non-state groups alike. Realising the stagnation of its formalised treaty building efforts, COPUOS has pivoted, and following in the footsteps of non-state groups adopted in 2019 voluntary Guidelines on the Long-term Sustainability of Outer Space Activities.[47] These guidelines differ from past treaties as they are non-binding and rather than comprehensively establishing legal foundations, sets "out a holistic approach to promoting the long-term sustainability."[48]

Principal among non-state groups, the Hauge International Space Resources Governance Working Group, a non-state collection of private sector stakeholders adopted in 2019 the Building Blocks for the Development of an International Framework on Space Resource Activities.[49] These building blocks consider the governance of space resource activities, but instead of comprehensively addressing these issues, advocates for the incremental adoption of 'mutually-accepted' law, as practices and technology changes.[50]

The Moon Village Association builds upon the COPUOS Guidelines and Hague Building Blocks. Established with the goal creating a "permanent global informal forum for stakeholders … interested in the development of the Moon Village."[51] The organisation's Moon Village Principles were adopted to codify its vision for lunar Lex ferenda. Consistent with international law as well as norms shaping agreements, it recognises the work of both IGOs and similar non-state groups in encouraging the incremental development of governance systems.[52]

Artemis Accords and Unilateral Governance Takeover

As previously recognised, multilateralism takes the short straw in the game of great power competition to shape governance. Although non-state actors and norm shaping agreements have offered temporary helmsmanship in place of multilaterally led governance, space fairing great powers, emboldened by their coalitions and bilateral agreements have become empowered to shape governance unilaterally. In this equation, non-state groups may influence the unilateral action of great powers, but states themselves, unless privileged with the capabilities of space fairing nations, are increasingly less able to shape the norms and rules of space governance.

Accompanying NASA's return to the moon under the Artemis Program is the Artemis Accords, a set of common principles for civil space activities, drafted by the United states and Grounded in the OST.[53] The accords would ensure governance facilities exploration, science and commercial activities, as well as develops the ecosystem of products and services required for a sustainable presence in lunar space and on the moon.[54] The acceptance of these accords would establish a framework of bilateral agreements between the United States, and those partner nations who accept American principles and rules in return for cooperation with US led civil space activities.[55] A hallmark of unilateral governance takeover, the "Artemis Accords again emphasize the strength and ability of a [great] power to impose its will by establishing the field of action, the rules of the game, and the agenda."[56]

The Artemis Accords also establishes the legal precedent of 'safety zones' around lunar operations to protect commercial and scientific sites from harmful interference.[57] Chinese and Russian officials are highly critical of this move, claiming it would amount to a sovereign claim and hence be a violation of the OST.[58] As an alternative pathway to the US led Artemis Accords, China concurrently has plans to establish an Earth-Moon Special Economic Zone with the assistance of Russia and partnering states.[59] By utilising the Chinese led Asia-Pacific Space Cooperation Organisation, a regional instrument to promote capacity building,[60] as well as leveraging the SCO, BRICS and its Belt and Road Initiative, China offers an enticing alternative to US civil space cooperation.[61]

India, as both a signatory to the Moon Agreement, but also a potential partner of the Artemis Accords has seen increasing internal pressure to do away with the Moon Agreement and pursue US cooperation. However, this position is far from certain, "being the third largest economy in the making, India need not conceptually side with any of the space groupings but make pragmatic collaborations."[62] Today, the effect of most states on space governance is increasingly less characterised by their involvement in the multilateral system, but their cooperation with and backing of great powers. For the future of multilateralism, the Artemis Accords, despite offering legitimate concepts for the governance of space, may be the straw which breaks the camels back.

Conclusions

Space is increasingly less international and characterised by coercion, coalition building and the pursuit of hegemony. Great Powers have actively exploited the stagnation of multilateral governance mechanisms, using militarisation and geopolitical strategic narratives to unilaterally shape the norms and rules of space activities. Despite the valiant efforts of non-state actors to uphold the traditions and principles of the space treaties via, codifying law and embracing norm shaping agreements, the ability to shape governance by non-spacefaring states is in decline.

The critical reflection of contemporary space law and governance offered by this paper was framed first by summarising the institutions, treaties, and mechanisms which upheld the multilateral system of space governance and discussed its stagnation in addressing new challenges. Then, the failures of the CD were noted as a primary cause behind contemporary escalatory geopolitical narratives and space militarisation. Following, non-state actors were recognised for their role in maintain the space treaties in the absence of effective multilateralism. Finally, the unilateral takeover of governance by great spacefaring powers was noted, highlighting the divergence between the United States and china and their pursuit of coalition building and space development pathways.

Contrary to the fashionable assessment of vast prospective economic, technological and capability gains regarding future space activities, this paper's focus on governance stagnation and great power sabre-rattling offers a more restrained if cynical analysis. Although future governance remains to be largely uncertain, contemporary militarisation, the stagnation of multilateralism and the divergence of great powers in norm shaping efforts does much to propagate concern for a 'might is right' future concerning the governance of space.

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