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Regulatory Dynamics and Tensions in the Space Sector

Towards an Americanization of Space Law?

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Key Takeaways

- In 1958, the UN formed the Committee on the Peaceful Uses of Outer Space to oversee the exploration and use of space. Its early work culminated in the adoption of the five founding treaties of space law (1967-1979).
- By the 1980s, states began to favor non-binding resolutions, ushering in an era dominated by soft law, still rooted in a top-down approach. International standards, developed through multilateral cooperation, were then incorporated into domestic legal systems.
- In the 2000s, a bottom-up process began to emerge: national standards, driven by the industry's growth, set down rules that subsequently influenced the development of international law. This trend was accentuated by the presence and proactive involvement of the space industry in international forums responsible for the development of space law.
- This paradigm shift reflects the growing influence of space powers, but raises a major concern: the Americanization of space law, driven by the regulatory preferences of the United States and its private sector.

Top-down standard-setting driven by UN leadership

The launch of Sputnik 1 by the Soviet Union on October 4, 1957, ushered in the space age, immediately raising unprecedented legal questions. By 1958, the United Nations had already formed an ad hoc committee to study the legal issues raised by space activities.[1] The following year, this committee was transformed into a permanent body under the authority of the United Nations General Assembly (UNGA): the Committee on the Peaceful Uses of Outer Space (COPUOS). The committee includes a Legal Subcommittee tasked with the gradual development of space law.[2] It operates on the basis of consensus, which ensures that its recommendations are accepted by all, large powers and small states alike, and gives its work universal legitimacy.

Its creation reflected the international community's immediate desire to provide a legal framework for space activities. This resulted in the UNGA's rapid adoption of an initial set of standards in the form of the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, annexed to Resolution 1962 (XVIII) of December 13, 1963.

The golden age of space treaties

The Space Race hastened the need for a legal framework applicable to space and celestial bodies, in order to prevent space exploration from becoming a source of conflict. The United States accepted the Soviets' proposal to adopt a general treaty, provided that it be supplemented by implementing conventions. The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies,[3] was opened for signature on January 27, 1967, and reiterates and expands on the main principles set out in the 1963 Declaration: freedom of space, non-appropriation of space and celestial bodies, prohibition of weapons of mass destruction in Earth orbit, use of celestial bodies exclusively for peaceful purposes, international responsibility, etc. As of 2025, it numbers 114 States Parties.

This founding text is supplemented by four specific conventions:

- the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, of April 22, 1968 (98 States Parties in 2025);
- the Convention on International Liability for Damage Caused by Space Objects, of March 29, 1972 (101 States Parties in 2025);
- the Convention on Registration of Objects Launched into Outer Space, of January 14, 1975 (73 States Parties in 2025);

1. UNGA, Resolution 1348 (XIII) of December 13, 1958.
2. UNGA, Resolution 1472 (XIV) of December 12, 1959.
3. Often simply referred to as the “Outer Space Treaty”.

- finally, the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, of December 18, 1979 (17 States Parties in 2025).

Inspired by an initial proposal by Argentina and supported by developing countries, the Moon Agreement applies the principles of the Outer Space Treaty to the solar system's celestial bodies, particularly with regard to freedom of scientific research. It innovates by declaring the Moon and its natural resources to be "the common heritage of mankind" and calling for the establishment of an international regime governing the exploitation of celestial bodies' resources. The Moon Agreement draws direct inspiration from parallel negotiations concerning the overhaul of maritime law, which recognized the deep seabed as the common heritage of mankind and established an international authority responsible for organizing the exploitation of its resources.[4] However, this approach met with opposition from the two superpowers, the USSR and the United States, each for different reasons. For the USSR, the 1967 Outer Space Treaty prohibiting any form of appropriation of celestial bodies meant that the adoption of a new agreement was unnecessary, especially since it paved the way for the commercial exploitation of space, which was unacceptable for Moscow. For the United States, restricting its freedom of action with respect to celestial bodies or introducing an international sharing regime for the exploitation of resources was out of the question. Though it came into force in 1984, as of 2025, only 17 states are parties to the Moon Agreement, a diplomatic failure that marked the end of the golden age of space law, which was founded on international treaties.

UN normative resolutions take over

Beginning in the 1980s, standard-setting efforts took the form of UNGA resolutions, falling within the realm of so-called soft law. While these texts did not have the binding force of treaties, they guided states' actions and could contribute to the emergence of customary law. Their adoption exposed certain tensions.

The Principles of direct satellite broadcasting (1982) were adopted by vote at the UNGA, at the USSR's initiative, in the absence of a consensus at COPUOS.[5] Discussions opposed the United States, which favored the free flow of broadcast media as an extension of freedom of expression, to socialist countries and many developing countries, which saw this as a threat to their cultural and informational sovereignty. A consensus quickly proved impossible to reach.

The Principles relating to remote sensing of the Earth from outer space (1986), on the other hand, were successfully adopted by consensus, paving the way for the space imaging market.[6] This was made possible by the backing of developing countries, which were initially reluctant. The tide turned once the space powers offered guarantees that

4. United Nations Convention on the Law of the Sea of December 10, 1982, including Part XI.
5. UNGA, Resolution 37/92 of December 10, 1982.
6. UNGA, Resolution 41/65 of December 3, 1986.

remote sensing would not be used against the legitimate rights and interests of the countries being observed, and that they would be ensured non-discriminatory access to data pertaining to their territories. Likewise, consensus was reached on the adoption of the Principles on the Use of Nuclear Power Sources in Outer Space (1992), which were formulated following an accident involving the Soviet satellite Cosmos 954, equipped with a nuclear generator, which crashed on Canadian territory in 1978.[7] One last text concludes this period: the Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States (1996).[8]

A top-down process

Whether it results from binding agreements or from more flexible standards, space law takes shape at the international level before being transposed into domestic legal systems. Thus, following this top-down process, national space laws are structured around Articles VI (international responsibility and control of activities in space), VII (liability for damage caused by space objects), and VIII (registration of space objects) of the Outer Space Treaty. In other words, standard-setting flows from international law into national legislation.

Bottom-up standard-setting driven by national practices

Beginning in the 2000s, the standard-setting process for space law underwent a profound transformation. Three factors have contributed to this shift. First, the upsurge in space activities requires stringent operational rules, for instance, with respect to operational safety and space debris management. Secondly, commercial operators, who are directly exposed to the sector's technical and financial challenges, demand to be involved in the development of the standards that govern their activities. Finally, the United States' dynamic and innovative private sector has the resources to establish technical standards that tend to become de facto norms for the entire international community.

The adoption of technical standards

In this new context, COPUOS seeks to maintain its role as a universal forum for the development of space law. But it now relies more on industry practices as a means of "revealing" the best measures, likely to be recognized as international standards. This process is particularly evident in the area of space debris management, with the Space Debris Mitigation Guidelines adopted by COPUOS in 2007 and endorsed by the UNGA.[9] The UN's guidelines were, in fact, directly informed by technical recommendations made earlier by the Interagency Space Debris Coordination Committee (IADC), which regroups

7. UNGA, Resolution 47/68 of December 14, 1992.
8. UNGA, Resolution 51/122 of December 13, 1996.
9. UNGA, Resolution 62/217 of December 22, 2007.

the world's major space agencies. In the same vein, the Guidelines for the Long-Term Sustainability of Space Activities were adopted by consensus at COPUOS in June 2019, drawing on national practices. However, this method of developing international law, which relies on the industry's experience and technical standards, has a structural bias: it favors countries with a strong space industry and companies capable of directly influencing standards development. In practice, it strengthens the United States' position, which can thus turn its domestic normative preferences into global standards.

Space resources and orbital traffic: the new regulatory battlegrounds

The shift toward bottom-up standard-setting is particularly apparent in the field of celestial resource exploitation. The United States paved the way with the U.S. Commercial Space Launch Competitiveness Act, enacted on November 25, 2015, which grants U.S. companies ownership rights over the space resources they extract, while affirming that such resource extraction does not violate the principle of non-appropriation enshrined in the Outer Space Treaty.[10] This initiative directly inspired other countries keen to support their own industries: Luxembourg adopted a law on the exploitation of space resources in 2017, followed by the United Arab Emirates in 2019 and Japan in 2021. These national laws echo the U.S. model by legitimizing private resource extraction, resulting in regulatory convergence through national legislation.

The United States then consolidated its influence on the international stage by launching the Artemis Accords, presented in October 2020 as a framework for cooperation on NASA's Artemis lunar program. These Accords, which are non-binding and signed bilaterally with each partner, largely reflect the principles of the 2015 U.S. law. Their political impact is far-reaching: as of 2025, there are 56 signatories, accounting for nearly half of the States Parties to the Outer Space Treaty. In practice, the Artemis Accords help the United States steer international dialogue in its favor, in particular at the UN. Within the COPUOS Working Group (WG) on space resource activities, discussions are now shaped by this U.S. approach, which sidesteps the central question of the very legality of resource exploitation. UN multilateralism is thus weakened by the consolidation of a plurilateral coalition aligned with the United States' regulatory position.

During these discussions, China, though also interested in exploiting space resources, adopted a cautious stance, leaving Russia to act as an opponent to the U.S. vision. This restraint might be explained as a political calculation. Beijing, keen to project itself as a responsible multilateral actor, could not be seen to support a liberal initiative largely driven by the United States, even if its interests converge with Washington's. Despite its isolation within the WG, Moscow retains a weapon of last resort. Its veto can prevent the adoption of a text by consensus. This power of veto does not, however, prevent states aligned with the U.S. position from circumventing the deadlock by submitting the draft

10. At present, this type of activity remains highly speculative, and no space mining company has ever extracted any resources from a celestial body.

directly to the UNGA for adoption by majority vote—a strategy which the USSR adopted in the 1980s during the debate on direct satellite television. As noted above, the positions of the United States and the USSR were irreconcilable, and consensus could not be reached within COPUOS. In 1982, the USSR therefore chose to submit its draft resolution directly to the UNGA, bypassing the Committee's consensus process. Its proposal, backed by a large group of states concerned about possible U.S. cultural domination through broadcasting satellites, was finally adopted by vote.

The issue of space traffic management also sharply illustrates the current tensions between a top-down multilateral approach and a bottom-up process. The rapid increase of in-orbit objects, driven by the deployment of satellite constellations in low Earth orbit, calls for joint coordination rules to prevent collisions and interference. No consensus has emerged within COPUOS, however, as states are reluctant to lay out the boundaries of a complex international regime that would limit their sovereignty. The Committee only resolved to establish an expert group specializing in this issue in 2025. Discussions are now underway, but focusing only on Space Situational Awareness, which is seen as a less politically sensitive technical and cooperative approach, compared to the establishment of a genuine international space traffic management regime.

In this regulatory vacuum, the United States has taken the lead by defining a national policy for space traffic management. Space Policy Directive-3 (National Space Traffic Management Policy), signed on June 18, 2018, during the first Trump administration, provides for the transfer of tracking and notification missions from the Department of Defense (DoD) to the Department of Commerce (DoC). This directive lays the foundations for a civil space traffic management system, developed in close partnership with private industry and intended to become a de facto international framework. Several bills in Congress have sought to provide a legislative basis for this policy, including the ORBITS Act of 2023 (S.447), which establishes stricter debris removal requirements and cements the DoC's central role.

In response to this U.S. strategy, China advocates a multilateral approach expanding the role of the International Telecommunication Union (ITU). This forum is also favored by many private operators: not only because they actively participate in ITU work as members of the private sector, but also because the ITU has already demonstrated its competence in managing a critical resource, the “orbit spectrum”, administering a global system of frequency and orbit coordination and registration for decades. The ITU is specifically seeking to establish itself in the area of space traffic management, even if this means encroaching on COPUOS's longstanding remit. The ITU's jurisdiction remains relatively narrow. The organization may only intervene in the context of international cooperation relating to the use of radio frequency spectrum and associated orbits, as per its mandate. Its role is therefore limited to technical matters and orbital coordination, and does not extend to the operational or legal management of space traffic generally, which is governed by other international bodies, including COPUOS.

For this reason, companies grouped together in professional associations, such as the Global Satellite Operators Association (GSOA) and the Space Data Association, are increasingly involved in the work of COPUOS, in the hopes of influencing the direction of future discussions on space traffic management. Their participation is, however, limited to observer status, which does not grant them any voting rights. The private sector is also invited to participate in activities parallel to the Committee's sessions, including round tables and technical presentations. Their exclusion from formal negotiations explains the proliferation of corporate initiatives aimed at influencing debates and shaping the development of future standards. Their influence is all the more significant given that budgetary constraints affecting the UN have reduced the Committee's activity and that several national delegations now lack specialized space expertise, leaving more room for the best-organized private actors.

The U.S. regulatory challenge and the European response

To counterbalance the United States' regulatory power, in June 2025, the European Commission proposed the adoption of an EU-wide regulatory framework.[11] One of the objectives of the proposed EU Space Act is to promote the emergence of common technical standards applicable to all Member States, while preventing the risk of fragmentation of the internal market through the proliferation of individual national space laws. The European Commission has also expressed its desire to extend the application of EU law to all non-European providers offering space services within the European market, in line with the now well-established concept of the “Brussels effect”.[12] This regulatory strategy has been successfully applied in the field of personal data with the EU General Data Protection Regulation 2016/679 of the Council of April 27, 2016, better known as the GDPR, which has established itself as the global standard in this area. It reflects the EU's growing ambition to position itself as a regulatory power in the space sector, capable of shaping the global market through the strength of its legal framework and compliance requirements. The official response from the U.S. government, sent on November 4, 2025, expresses serious concerns about the European project, which it considers too restrictive and likely to impose excessive regulatory burdens on U.S. companies operating in the European market.[13] This reaction shows that the European Commission's initiative has already had an impact, prompting the United States to take European regulatory guidelines into consideration, a sign that the EU is now seen as a potential regulatory force in the space sector.

However, for the EU to truly hold sway in this international regulatory competition, it will need to draw on a robust and innovative space industry ecosystem capable of producing global technical standards. The Commission's role is therefore not only to

11. COM(2025) 335 final, June 25, 2025.
12. A. Bradford, *The Brussels Effect: How the European Union Rules the World*, New York: Oxford University Press, 2020.
13. “Comments of the United States of America on the Proposed EU Space Act”, U.S. Department of State, November 4, 2025, EU reference: Ares(2025)9484819.

propose a harmonized regulatory framework, but also to create the conditions for industrial leadership by supporting standardization, technological innovation, and the dissemination of European standards in international forums. It should be ensured, however, that this regulatory initiative does not overburden European industry with complex and costly procedures, at a time when the U.S. administration, under pressure from the private sector, could soften its own requirements.

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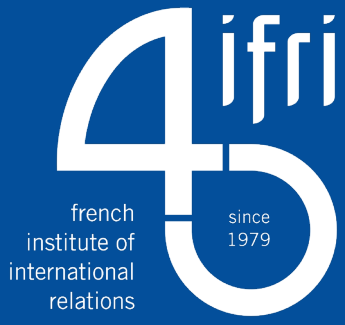

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