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OUTER SPACE TREATY Turns 50
1967–2017

50 YEARS OF SPACE LAW

Time to Rewrite the Rules?

By Sarah Kellogg
When the United States, the United Kingdom, and the Soviet Union came together 50 years ago to codify the rules of outer space, they offered an aspirational view of space exploration and a vision built on the defining principles of democracy, equality, opportunity, and peace.

Ultimately, 107 nations would become parties to that agreement, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies. Known as the Outer Space Treaty (OST), the agreement was remarkable for its prudence and for what it left unwritten.
The Outer Space Treaty was very much a product of its time. It was designed to limit the downside for the U.S. and the Soviet Union, and to make sure that no one would be hurt by coming in second.

PAUL STIMERS  
K&L Gates LLP

"The treaty has stood the test of time," says Pamela L. Meredith, chair of the space law practice group at Zuckert, Scutt & Rasenberger LLP. "It has not been an impediment to commercial space development. It has greatly influenced domestic legislation as well as international and domestic policy on space. If we look back to 1967, when the treaty was adopted, it laid down some fundamental principles that have held up quite well. It was also a springboard for subsequent space treaties."

Comprised of 17 short articles, the treaty delineated the overarching principles to guide the peaceful development of outer space to the benefit of everyone. Built into the treaty was the promise of a future that wasn't yet known, so the text was purposefully designed to be flexible and open to interpretation.

Much of that promise has been met, albeit at a slower pace than some might have expected. For the most part, space has not become a province for war, though spy satellites abound, and many governments and corporations have freely invested in exploring the cosmos, limited only by their imaginations and their pocketbooks.

Space development and travel have long been the purview of the government, particularly in the United States where NASA is synonymous with space. Today the new space economy is driven as much if not more by the private sector, as corporations look to opportunities in low-Earth orbit, the surface of the moon, and beyond.

Space opportunities are flourishing, thanks to technological breakthroughs that result in miniaturization and advanced manufacturing, and have made satellites smaller, launches cheaper, and remote sensing ubiquitous.

While the broad-brush principles of the treaty have held up, many space law experts believe the doctrine is insufficient to regulate a more vigorous, commercialized, and accessible cosmos. They say the treaty is a foundation and must be supplemented with new international regimes and domestic statutes to address the onslaught of legal and regulatory issues arising daily.

"This is a treaty written 50 years ago," says Eric Stallmer, president of the Commercial Spaceflight Federation, an advocacy group for human space flight. "In theory, it’s still a very good document. We should be adhering to it. As the industry is evolving, we need to evolve the rules of the road. In 1967 there were probably 20 to 25 satellites in space. Now there are probably 4,800."

A FARSIGHTED ACCORD

Signed in January 1967, and entered into force in October that year, the Outer Space Treaty was a product of its time, and the pre-breakup Soviet Union that were in the midst of a heated space race at the time. Yet, it also looked to protect the interests of other nations that hadn’t invested widely in space or Cold War armaments.

“The Outer Space Treaty was very much a product of its time,” says Paul Stimers, a partner at K&L Gates LLP. "It was designed to limit the downside for the U.S. and the Soviet Union, and to make sure that no one would be hurt by coming in second."

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regulations, including how to deal with space debris from wayward satellites. The United States also amended the Commercial Space Launch Act in 2004 to address ongoing concerns around human space flight.

By 2015 the legislative focus was on setting rules for mining resources, whether from the moon or asteroids. The U.S. Commercial Space Launch Competitiveness Act of 2015 ensured that U.S.-based companies would get the rights to resources they extract from space, even if they couldn’t own the “land” they extracted them from.

“Domestic regulatory regimes exist today for commercial satellite communications, satellite remote sensing, and space transportation. There is a regulatory void for many of the new commercial space activities,” says Meredith. “As a domestic matter, we need to create some certainty for companies that want to go ahead with these activities and attract some investment to these projects.”

21ST-CENTURY TREATY

While the central principles of the OST have been sporadically, and at times disjointedly, supplemented with domestic legislation and international regimes, many believe that a more comprehensive revision is necessary to reflect today’s reality.

Today’s satellite telecommunications, remote sensing, and space-launch enterprises are growing in complexity. Meanwhile, space development has been more explicitly defined by government agencies and private corporations, from visions of Mars settlements to extractions of minerals from asteroids.

“In the last decade, it’s been more and more apparent that the law set up in the 1960s worked fine for 50 years, but now, the fact is, there isn’t enough law for the circumstance,” says Chris Johnson, space law advisor for the Secure World Foundation, a nonprofit dedicated to sustainable space development. “For what we want to do in the future, we will need more law.”

Up to now, the governing approach has focused on regulating an activity — communications, space transportation, remote sensing, and resource extraction. The question going forward is, what is the government to do about new activities that don’t fall neatly into the scope of current laws?

“There are a lot of holes in the treaties that need plugging, and some definitions that aren’t precise,” says Henry Hertzfeld, a professor who focuses on legal issues of space at the Elliott School of International Affairs at The George Washington University. “Sooner or later, we’re going to have to face those issues.”

The challenge in crafting rules for space in the 21st century is that nations must make decisions that are both mundane and profound. What laws should astronauts live under on the moon or on Mars?
Who is accountable for cleaning up space debris? And what should be done about commercial space disputes?

Companies like Blue Origin and SpaceX are moving at a speed previously unseen in the space industry, and they are looking to lawmakers and international diplomats to find solutions to their regulatory challenges as quickly as their companies are advancing the new space race.

"We're moving into an era of more private companies, both here and abroad, being involved in space, and we're providing incentives for this to happen," says Hertzfeld. "If something does happen that's an accident or a problem, we don't have a good dispute resolution system up there."

THE NEXT STAGE

Experts believe the best regulatory approach may be incremental, combining discrete, reasonable regulation with a laissez-faire sense of enterprise. A hybrid regulatory structure would allow principal documents like the OST to stand while giving companies and countries enough freedom to move within its boundaries.

"I think that space will become more like the oceans where there are multiple players. There are some states there. There are private corporations. There are private individuals," says Hertzfeld. "If something does happen that's an accident or a problem, we don't have a good dispute resolution system up there."

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“Henry Hertzfeld, courtesy of Henry Hertzfeld

Space Enforcement and Dispute Resolution. Enforcement of current rules is often slow due to ambiguities in the rules and national security issues. Many believe stronger enforcement and dispute resolution are necessary when bad actors break the rules, whether it’s shooting a satellite down or failing to get appropriate consent from tourist astronauts for space flight.

In the 50 years since its adoption, the OST grounded global space development in universal and conscientious principles. Yet, like space exploration and development itself, the pace of updating the OST for a new generation has taken decades. The legal and regulatory challenges ahead are complex and multifaceted, making it essential for international leaders to establish legal accords that respond in real time and to realistic disputes.

Sarah Kellogg is a regular contributor to Washington Lawyer.