

Property & Laws in Space

Fast Facts

What laws are in place around nations, companies, or individuals owning property in space? What ethical and legal questions do we need to ask as more and more private companies launch vehicles into space? Here are the basics.

- There are laws in outer space. **Space law** is made up of the rules of international law appearing in the five international treaties and five sets of principles that govern outer space, other international law (including the Geneva Convention), and government and judicial decisions made by countries about space. Space law governs activities such as launching, liability for damages caused by spacecraft, and recovery of satellites.
- You can't conquer a planet any time soon. The **Outer Space Treaty of 1967** was created to prevent an arms race in space. Countries, including the U.S., agreed that outer space would remain unclaimed by any nation and free for countries to explore. No one may build military bases or test weapons on other planets. The treaty promises that nations will avoid harmful contamination from space, take responsibility for damage done by their space objects, and be responsible for space activities done by their country even if not conducted by the government. The treaty is the most cited precedent for what is legal in space. It does not, however, address rules for military bases or warfare in open space or on space stations, and it does not address what private companies may do in space.
- Companies wanting to do business in space are subject to their nation's individual laws as well as international law. Whether countries can bring back large amounts of material without violating the neutrality laws is a gray area.
- Barack Obama signed the **U.S. Commercial Space Launch Competitiveness Act** into law in 2015, allowing for the development of a commercial space industry. It allows American citizens to keep anything they bring back from space, as long as it is not a living organism. The law was lobbied for by Deep Space Industries, Bigelow Resources, and Planetary Resources, three companies with major commercial interests in space, including the possibility of mining asteroids. Luxembourg immediately followed suit in 2016 with even less restrictions outlined in their law, and immediately saw attention from U.S. companies. More nations began plans to move into space commercially, and the new space race began.
- Several bills were reviewed by the House and the Senate in 2018 that would regulate private spacecraft and make sure they comply with the basic rules of the Outer Space Treaty. One of these was the **American Space Commerce Free Enterprise Act**, which was passed by the House and referred to the Committee on Science, Commerce and Transportation by the Senate. If passed, companies could offer information about their spacecraft and get approval and a permit from the Office of Space Commerce, who would be responsible for making sure international law isn't violated. This would allow a simpler approach and more industries than are currently covered by permits from the FCC or FAA.
- Can you keep something that reenters the atmosphere undamaged? All international law is applicable in outer space. **The law of salvage** is a maritime law stating that if you find an abandoned vessel or cargo and have no hope of identifying where it came from, it's yours.

- Who is responsible for **space debris** damage? Space law gives the entity that launches a space vessel (including any parts that break off) ownership (and responsibility for damages) forever, even if the vessel is no longer in space or reenters the atmosphere years later. Though some debris enters the atmosphere each day without burning up, most lands in the ocean or on unoccupied land.
- The 1972 **Space Liability Convention** determined additional rules of liability for launching spacecraft, primarily that countries responsible for a launch can be held liable for individual damages.
- Who is financially responsible for cleaning up space? Thus far, no one, and the potential problems are increasing. Like when people used to dump detritus in the vast oceans thinking we could never pollute it all, we've left a lot of junk in space. NASA scientist Donald Kessler proposed the theory **Kessler Syndrome**, which describes a self-sustaining collision in which two objects in space collide and create debris which also collides, eventually creating an impassable wall of high speed garbage. Though it hasn't happened yet, it is possible for debris to damage satellites in a way that restricts our access to wireless internet and GPS services. Even if all countries stopped launching into space today, it would take 200 years for new debris to stop accumulating.

SOURCES

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