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Legal Uncertainty May Keep Space Exploration Grounded



By **Daniel Wilson**

Law360, Nashville (September 7, 2016, 3:48 PM EDT) -- A decades-old international treaty that limits ownership claims in outer space is unlikely to hamper U.S. commercial space exploration or "space mining," but a lack of clarity over the authority to monitor operators once in space may yet hold back such commercial ventures.

President Barack Obama in November signed into law the U.S. Commercial Space Launch Competitiveness Act, perhaps better known by the more evocative title used for the **original House version** of the bill, the Spurring Private Aerospace Competitiveness and Entrepreneurship, or SPACE, Act.

Among other clauses aimed at smoothing the way for commercial spaceflight, the bill includes a provision allowing U.S. citizens and operators to keep any resources they obtain in space, such as minerals mined from asteroids.

Although the passage of the SPACE Act was greeted as welcome news by the nascent commercial space industry, among others, concerns were raised that it could run afoul of the United States' international obligations.

Concerned lawmakers and other critics of the bill cited the Outer Space Treaty, a 1967 international agreement that blocks national appropriation of any "celestial body," arguing that the space mining provisions in the bill could violate the treaty even with the legislation directing U.S. operators to stay within the bounds of international obligations.

This debate was rekindled on Aug. 3, when the **Federal Aviation Administration** announced that it had cleared Moon Express Inc. to launch an unmanned mission to the moon in 2017, set to be the first private moon landing. The company said in a statement at the time that the launch would begin "a new era of ongoing commercial lunar exploration and discovery, unlocking the immense potential of the Moon's valuable resources."

Despite the arguments to the contrary, space law experts Berin Szoka, the president of think tank TechFreedom, and James Dunstan, the founder of Mobius Legal Group PLLC, argue that the Outer Space Treaty does indeed allow for the broad commercial exploration and use of celestial objects, such as asteroids or the moon.

The treaty bars countries from making a territorial claim, such as ownership of a section of the moon or an entire asteroid, but doesn't — with the exception of noting that objects launched into space remain the property of their earthly owners — speak to personal property rights, according to Dunstan.

"It's a personal property interest versus a real property interest ... That's a hugely important distinction that so many people just sort of gloss over," Dunstan said.

The lack of specificity on personal property rights, combined with the treaty's claim that apart from its specific restrictions, outer space "shall be free for exploration and use," leads to an interpretation that the extraction and use of resources is allowed, Dunstan contended.

"Yes, there is a prohibition, but the prohibition was really meant to keep a country, and citizens of a country, from claiming entire asteroids or entire celestial bodies like the moon," he said. "It was never intended to stop people from going out and utilizing the resources of outer space."

Chris Johnson, a project manager at the Secure World Foundation and an attorney who specializes in international space law and policy, noted that the Outer Space Treaty came at a time before commercial mining of resources was even a theoretical consideration and is focused on preventing celestial bodies becoming either the target of a new "colonial land rush" or the "high ground" for military applications.

Arguments that the treaty does not prevent the private appropriation of celestial bodies are sophistic, Johnson argued. But he also contended that commercial exploration by Moon Express and similar companies is not illegal as long as it is done with the approval and supervision of the relevant country.

When putting the various clauses and principles of the treaty together, including the "broad freedoms" set out in its first article, the things that Moon Express, for example, wants to do "would not be violative of the freedoms that everyone is given to access and use," Johnson said.

"They're doing space activities that advance humankind's technological know-how. They will be sharing data about the formation of planets and the composition and formation of places on the moon," he said. "All those things, people can be quite happy and proud of."

That view of the treaty is not unanimous, however. Timothy Nelson, a **Skadden Arps Slate Meagher & Flom LLP** partner who specializes in international legal matters, noted the nature of the language in the treaty regarding the ownership of resources extracted in outer space continues to present an unresolved political issue for some countries.

Those countries believe that materials beyond national boundaries — including space resources — are a matter of common heritage that can't be assigned ownership unless done by an international body, Nelson said.

"It's all very well for Congress to decide to unilaterally regulate that, but it doesn't solve the kind of questions that sensible people having to compensate for a large investment would make," he said. "Some people would say — and I'm not taking sides — that it doesn't address the public interest question of whether, indeed, these are to be regarded as common heritage."

Nelson said that a practical result of such disagreements between countries could be the confiscation of resources obtained in outer space, with the nature of space flight meaning operators can't always control specifically where they land and may end up landing in an area where another country doesn't recognize their ownership claim.

The potential legal avenues to resolve such international disagreements are vague, according to Dunstan and Szoka.

The Outer Space Treaty has no specific dispute resolution mechanism, with disputes instead left to "diplomatic negotiations." If those fail, the aggrieved country could go to the **International Court of Justice**, but that involves both the court agreeing that the protester has standing and the U.S. accepting the jurisdiction of the ICJ, they noted.

Other potential routes for addressing such disputes include going to arbitration or raising a case with the **World Trade Organization**, where appropriate, Johnson said. He expressed hope that the work of companies like Moon Express will not be contentious, while also noting there is further international discussion of the issue set for 2017.

The main issue that may hold up future commercial space exploration by U.S. companies lies closer to home, Szoka and Dunstan said, pointing to the treaty requirement that signatory countries provide ongoing authorization and supervision for activities done under their banner.

While authority exists in U.S. law to cover space launch and re-entry and other limited aspects of spaceflight, the part between launch and reentry is much murkier, legally speaking, they said.

Although the FAA approved Moon Express' payload review request, in consultation with the **U.S. Department of State**, and found that it complied with the treaty, the agency itself noted that the determination applies to one mission only, with future requests — whether from Moon Express or other companies — to be evaluated on a case-by-case basis.

"Not all non-traditional space missions may lend themselves to favorable payload determinations under [available] payload review authority," the FAA said in a statement at the time.

The issue of ongoing supervision was not addressed in the SPACE Act, and the FAA's recent decision, as the agency itself noted, offers no controlling precedent, with an ad hoc approval system and a "statutory gap" remaining in place unless and until Congress decides to act, Szoka said.

In the meantime, U.S. companies seeking space exploration authority will have to "run the same gauntlet" as Moon Express and hope no agency that may have a hand in the decision — such as the State Department or **U.S. Department of Defense** — raises any concerns, particularly as the reasoning behind a decision to nix a space mission is left opaque, even to the company making the application, according to Dunstan and Szoka.

"The best thing that can come out of Moon Express' [announcement] is the understanding that this is a complete one-off, and we've got to have a legislative fix that creates a transparent system, with very clear guardrails, very clear regulations as to what someone can and can't do in space," Dunstan said. "Otherwise, you're up to the whim of what some unnamed bureaucrat had for breakfast."

--Editing by Philip Shea and Jill Coffey.

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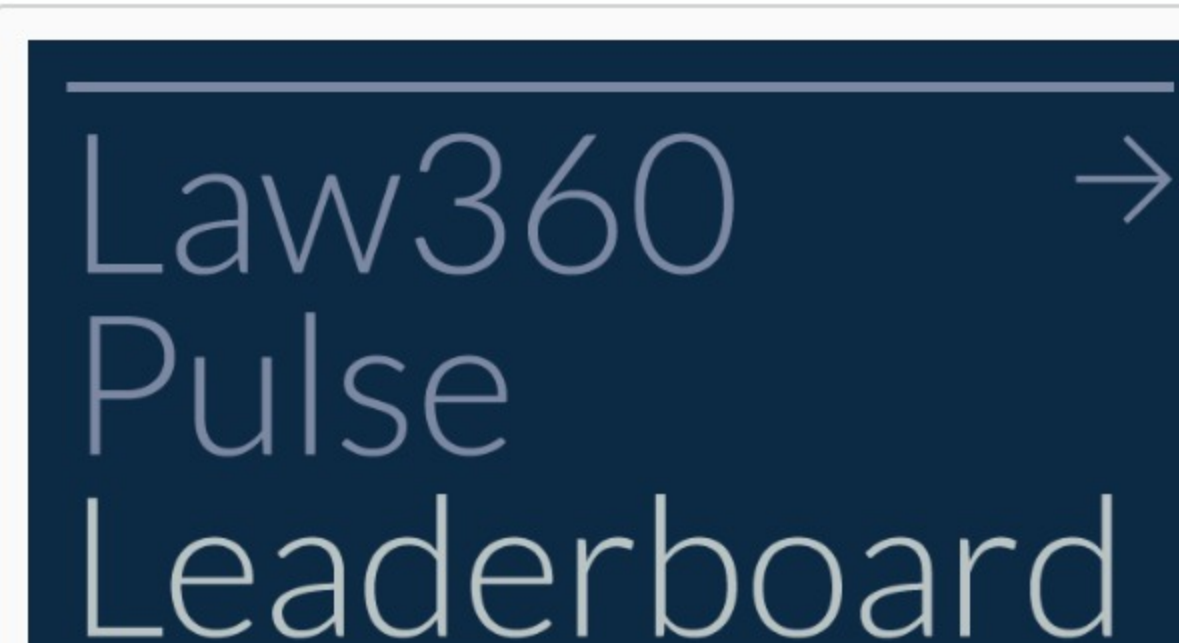
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