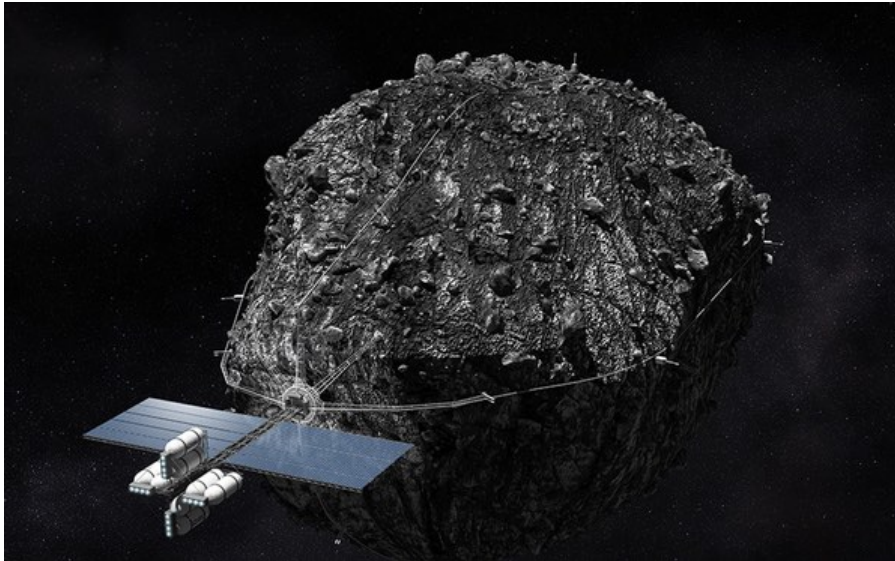


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A law passed last year regarding rights to space resources is a step towards full-fledged property rights in space, needed for space settlement to become a reality. (credit: Brian Versteeg/Deep Space Industries)

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We Will Not Stop



Unpopular truths about space settlement

by Alan Wasser

Monday, September 26, 2016

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Are you eager to see humanity colonize the Moon and Mars? Does it really matter to you? If so, how do you feel about these eight statements about space settlement? Which can you now accept, and which do you still reject?

1. The US government will never pay for space settlement, because, even if Congress wanted to, the taxpayers wouldn't allow it.
2. Space settlement, paid for by entrepreneurial investors, would occur if and when there were a way for investors to make a profit large enough and quick enough to justify the huge cost and risks.
3. Since the government will not do it, space settlement won't happen until there is a way to make that huge profit from it, in a reasonable time frame.
4. Since all the money is here on Earth, the customers who will buy whatever the settlement sells to get started must be here on Earth. Projects that will depend on selling to customers already in space can't be the basis on which the *first* settlement is established.
5. The costs of mining and transporting physical objects back to Earth mean there is no way such a large profit could be made quickly enough by mining or gathering any such resource. Even if something is very expensive in small quantities, to make a huge profit the scarcity value would have to hold for huge quantities.
6. Therefore, the only thing on the Moon or Mars that could be worth enough would be the real estate value of recognized lunar or martian land ownership. That is, land ownership, claimed as private property by a permanent settlement that is actually developing and living on the land, and claims that are recognized as valid by the US government. If it obtains that US recognition, a settlement could sell deeds to portions of its land to people in the United States. Those deeds would be printed on Earth with no transport costs. The volume could be scaled up as long as the market allows, at little additional expense.
7. However, in order for that to occur, the space community and Congress would have to override the opinion of the self-styled "space lawyers" who insist on a needlessly restrictive interpretation of the 1967

Outer Space Treaty, just as their views were rejected by Congress and the President with the passage of the space resource language in the Commercial Space Launch Competitiveness Act of 2015.

8. If that legal obstacle cannot ever be overturned, then there will never be a space settlement established, unless the Chinese government does it.

Which of those statements do you now agree with? Do you now agree with more of them than you would have years ago? If people now agree with enough of them, and care enough about the human settlement of space, then might it be time to revisit the [Space Settlement Initiative](#)?

The framework proposed by the Initiative would, as it says, “create a ‘pot of gold’ waiting on the Moon, to attract and reward whatever companies can be the first to assemble and risk enough capital and talent to establish an airline-like, Earth-Moon ‘space line’ and

Lunar settlement. How? By making it possible for a settlement to claim, own and re-sell, to those back home on Earth, the product that has always rewarded those who paid for human expansion: land ownership.”

Hopefully, perhaps, some entrepreneurs who can foresee having the technology to settle space—like Elon Musk, Jeff Bezos, Paul Allen, Richard Branson, or Robert Bigelow—would be willing to fight to create an environment where establishing a lunar or martian settlement would be so potentially profitable that they could get all the investment they need to make it actually happen in our lifetime.

Their lawyers and lobbyists could easily demolish the legal house of cards on which the current draconian treaty misinterpretation is built, and convince Congress and the courts to accept a more rational and practical interpretation of the Treaty.

They could persuade Congress to fulfill America's treaty obligation to authorize and supervise the activities of its citizens in space by enacting appropriate rules for their claiming land ownership, without claiming national sovereignty. The rules should specify what a space settlement must do to earn US recognition of its right to claim a reasonable amount of land around its base, and permission to sell parts of it to Americans back on Earth.

Suddenly, all existing investments in space technology would have a hugely profitable application. This would produce a huge increase in the value of the stock of companies with such technologies, such as SpaceX.

For a detailed discussion of why the current interpretation of the treaty is needlessly excessive, see [this explanation](#). Or, for a fully detailed, footnoted discussion of the many legal questions, opinions and precedents involved, as published in SMU Law

School's *Journal of Air Law & Commerce*, the oldest and most respected law journal in its field, see: “[Space Settlements, Property Rights, and International Law: Could a Lunar Settlement Claim the Real Estate It Needs to Survive?](#)”

Originally, the self-styled space lawyers went so far as to say that, under their interpretation of the Outer Space Treaty, no one could even claim ownership of a moon rock—even if they'd paid for the trip to go there and pick it up. They objected, but their position was clearly rejected by Congress and the President with the passage of the [Space Resource Exploration and Utilization Act of 2015](#) (later incorporated into Title IV of [HR 2262, the US Commercial Space Launch Competitiveness Act](#).)

That act says, “A United States citizen engaged in commercial recovery of an asteroid resource or a space resource under this chapter **shall be entitled to any asteroid resource or space resource obtained, including to possess, own, transport, use, and sell** the asteroid resource or space resource obtained in accordance with applicable law, including the international obligations of the United States.” [Emphasis added.]

The act only covers “resources,” not full private property ownership *per se*, but it's getting close. The space lawyers are absolutely right when they say it starts us down the slippery slope toward eventually recognizing full property rights! In fact, the Act's disclaimer of extraterritorial sovereignty, in Section 403, is very similar to the disclaimer of sovereignty that we proposed a decade and a half ago in findings 14 and 15 of [The Space Settlement Prize Act](#).

When the Space Settlement Initiative was first proposed, the legal objection was only one of many different objections that caused it to be rejected, but most of the other objections have since faded.

First, many said there was no need to involve private enterprise in space because they insisted that the US government would eventually pay for space settlement. It took a decade and a half of steady budget cutting to

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convince them of the truth of what we had been saying all along: that waiting for government-funded settlement really was wishful thinking.

In addition, there were the NASA and the State Department officials who insisted that only government employees could be trusted in space, not private citizens or private companies. Many said that rocket science was much too difficult for any non-governmental entity. Obviously, SpaceX's many successes have diminished that objection.

There was also the person who got the space community to reject the Initiative because he demanded the right to claim lunar land without actually having to go there. That held up things for years until the courts finally squashed his claim. He could not understand that, for the world to accept the validity of a land claim, that claim has to be made by people who are actually living on the land they are claiming by virtue of use and occupation. Plus, of course, the purpose of enacting property rights is to encourage settlement.

Others accept the idea of for-profit space development but consider real estate speculation somehow an unclear way to pay for it. They can't accept that a dollar earned from real estate speculation is just as good as a dollar earned from digging up rocks, and a whole lot easier to earn.

Some warned that passage of anything like land claims recognition would cause other nations and the UN to rise up in fury about a treaty "violation," but now we know the Commercial Space Launch Competitiveness Act caused at most a little harrumphing, but not even a small international incident.

There were those who considered the profit motive "dirty" and objected to "exporting capitalism" to the Moon. There are still some who feel that way, but they are less vocal about it now that they are realizing it is the only way settlement can happen.

Others accept the idea of for-profit space development but consider real estate speculation somehow an unclear way to pay for it. They can't accept that a dollar earned from real estate speculation is just as good as a dollar earned from digging up rocks, and a whole lot easier to earn. If that dollar is spent to make the human expansion into space possible, it is a good dollar indeed.

On Earth, fortunes built on buying and selling real estate, like Donald Trump's fortune, are treated no differently from fortunes made by manufacturing or mining. Why should earning money that way in space be considered somehow less pure?

Of course, we'll never know for sure, but it is quite reasonable to say that if land claims recognition had been enacted when it was first proposed, there would be people living and working in lunar settlements by now. Should we stick with the space lawyers' interpretation of the treaty and waste another decade or two?

Personally, I'm getting too old, and I have too much history, to lead the fight this time. Perhaps you, or someone you know, might care enough about making space settlement happen to take it on. If not, it's a shame to put it off again, but the idea will be back when the time is right because space settlement cannot happen without recognized property rights.



Alan Wasser is Chairman of the Space Settlement Institute, a member of the AIAA Space Colonization Technical Committee, and a former CEO of the National Space Society.

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da_ · 21 hours ago -2

it's not even clear under what authority the claim can be made that a treaty passed on Earth, by Earth governments, can have any jurisdiction over anyone who has provided their own means to travel to an off-Earth celestial body and take residence there. clearly, the governments do not even have the means to control that territory, so what gives them any jurisdiction?

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Dwayne Day · 19 hours ago +6

That's pretty nonsensical.

In order to launch they have to launch from a country. Go read the Outer Space Treaty and what it has to say about launching states.

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