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GA4: Special Political and Decolonisation (SPECPOL)

Research Report

Topic 2: Negotiating territorial claims upon planets in space and the allowance of obtaining new materials from those planets.



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Table of Contents

Table of Contents	2
Introduction	2
Key terms	2
Background information	3
Asteroid mining	3
Space law	4
Artemis accords	4
Major countries and organizations involved	5
Relevant UN resolution	6
Possible solutions	6
Bibliography	8

Introduction

Negotiating territorial claims upon other planets might seem like something which would be far into the future as we have not yet built any sort of space station on celestial bodies. However, the possibility gaining materials from outer space may be closer than we think. Obtaining materials from asteroids (asteroid mining) has already been an idea in development for many years. Similarly, though outer space territorial claims might seem new the ideas have been discussed in the UN dating all the way back to 1961.¹

Key terms

Celestial bodies: also commonly referred to as “heavenly bodies”, or “celestial objects”. These are anything in outer space that are not man made. This includes planets, moons, asteroids etc.

COPUOS: an abbreviation for “Committee on the Peaceful Uses of Outer Space”. A UN committee.

Asteroids: big, rocky, and filled with goodies. Asteroids are giant rocks floating throughout outer space. They contain materials such as minerals, water, and metals.²

¹ “Outer space treaty”, UN General Assembly, https://www.unoosa.org/pdf/gares/ARES_16_1721E.pdf

² “Asteroids: Facts”, NASA, <https://science.nasa.gov/solar-system/asteroids/facts/>

Planetary Resources: a company which in 2012 aimed to revolutionize material gathering from outer space. As of currently the company is as good as gone.

Deep Space Industries: Deep Space Industries, or DSI for short, was a company established in 2013 with very similar goals as Planetary Resources. DSI was not as successful as its counterpart and as a result this company is also as good as gone.

NASA: National Aeronautics and Space Administration. A space agency operating under USA.

Space law: various treaties, resolutions, and documents submitted under the UN. Though not legally binding most countries around the world follow these sets of principles.

Background information

Asteroid mining

One hypothetical way to collect materials from outer space is through mining asteroids. Asteroid mining was first theorized in 2012 by a company then known as *Planetary Resources*³. The company did not actually do any practical work (mining asteroids), as that would have been far too expensive for a company of their size, but they did start the idea of asteroid mining as well as design various prototypes.

Not soon after *Planetary Resources* brought forth the idea of asteroid mining, another company named *Deep Space Industries* came forth with similar ideas and visions. In only a few years these companies had received millions of dollars in donations. *Planetary Resources* had received an estimate of 50 million dollars alone, while *DSI* had gained roughly rtf3.5 million dollars. However, the companies would have to acquire a substantially larger sum of money to start mining asteroids. These companies also did not make any money, of course they were planning on it, but they saw it as a long-term investment and mostly relied on their investors' donations. This attitude towards acquiring money and investments eventually led to these companies' downfall.⁴ When the support for asteroid mining eventually declined *Planetary Resources* was bought by another business in 2018, and *DSI* by another in 2019.⁵ It is important to remember that the end of these companies does not mean the end of asteroid

³ Shriya Yarlagadda, “Economics of the Stars: The Future of Asteroid Mining and the Global Economy”, Harvard International Review, <https://hir.harvard.edu/economics-of-the-stars/>

⁴ Atossa Araxia Abrahamian, “How the asteroid-mining bubble burst”, MIT Technology Review, <https://www.technologyreview.com/2019/06/26/134510/asteroid-mining-bubble-burst-history/>

⁵ Shriya Yarlagadda, “Economics of the Stars: The Future of Asteroid Mining and the Global Economy”, Harvard International Review, <https://hir.harvard.edu/economics-of-the-stars/>

mining. Therefore, one should remember that asteroid mining still is a possibility, some people believe it is in the near future, some believe it is in the far future and some people say it will never be achieved. Non the less asteroid mining is a possibility. And it is also important to remember the lessons we could learn from the failure of these companies⁶.

It does not seem that there was anyone stopping these companies from simply just taking materials from asteroids if they wanted to. According to MIT technology the Space act was a bill passed in America in 2015 that allowed American companies to treat outer space as “a ‘finders, keepers’ rule whereby private American companies would have all rights to the bounty they extracted from celestial bodies, no questions asked.”. People have pointed out how this bill is in complete opposition to the Outer Space Treaty’. And the USA as a member of the UN should respect the Outer Space Treaty⁷.

Space law

As of yet, there are no territorial claims upon planets or any celestial bodies in space of any kind. This is because of the Outer Space Treaty submitted under the United Nations COPUOS in 1967 which claims that “outer space is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means”.⁸ The general idea is that the Outer Space Treaty prevents countries from claiming territory in space, make sure countries use space for peaceful purposes only, and make sure that when resources in space are utilized, they benefit the entirety of humanity and not a singular state, country, or individual.

Artemis accords

A more recent yet similar example of laws in space is the Artemis Accords. The Artemis Accords is a set of principles proposed by the Unites States and more specifically by NASA. The Artemis Accords claim to apply by the rules and laws made by the Outer Space Treaty⁹. However, the Artemis Accords do include the mention of so-called safe zones. According to *The Conversation* these safe zones act a little bit like the territories without actually being territories. The general idea is that a country will have control over a safe zone on a certain planet and when another country or individual approaches

⁶ “Infinite resources from space – asteroid mining”, Kurzgesagt – In a Nutshell, <https://www.youtube.com/watch?v=y8XvQnt26KI>

⁷ Atossa Araxia Abrahamian, “How the asteroid-mining bubble burst”, MIT Technology Review, <https://www.technologyreview.com/2019/06/26/134510/asteroid-mining-bubble-burst-history/>

⁸ “Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies”, United Nations Office for Outer Space Affairs, <https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/introouterspacetreaty.html>

⁹ “Artemis Accords”, U.S. Department of State, <https://www.state.gov/artemis-accords/>

that safe zone they would have to notify the country who has claim on that safe zone¹⁰. This is not technically against the Outer Space Treaty as it is not technically territorial claims, but it is certainly the closest thing we will get to territorial claims in space. Countries cannot, however, use force to uphold these safe zones as that would be directly against the Outer Space Treaty. The Artemis Accords also claim to be for peaceful purposes and only do mining and retraining resources when it can benefit the greater of humanity. The accords states that “The Signatories emphasize that the extraction and utilization of space resources, including any recovery from the surface or subsurface of the Moon, Mars, comets, or asteroids, should be executed in a manner that complies with the Outer Space Treaty and in support of safe and sustainable space activities.” and countries can therefore not extract materials for their own personal gain. However, that has not stopped the Artemis Accords from gaining a lot of popularity and there are already numerous signatories¹¹.

The current signatories are as stated: Angola, Canada, Iceland, Mexico, Republic of Korea, Spain, Argentina, Colombia, India, Netherlands, Romania, Ukraine, Australia, Czech Republic, Israel, New Zealand, Rwanda, United Arab Emirates, Bahrain, Ecuador, Italy, Nigeria, Saudi Arabia, United Kingdom, Brazil, France, Japan, Poland, Singapore, United States of America, Bulgaria, Germany, and Luxembourg¹².

Major countries and organizations involved

USA: The United States of America have a lot of independent companies as well as their own government setting their eyes on outer space. NASA which made the Artemis Accords are funded by the government of the USA.

NASA: National Aeronautics and Space Administration is a space program govern by the United States. For many years they have been the forefront of

Space X: the space agency owned by Elon Musk has for years aimed to go to mars and have people live there. Having certain territories, safe zones, or even being allowed to extract minerals would greatly benefit the mission to have human life on mars one day¹³.

¹⁰ Cait Storr, “Could corporations control territory in space? Under new US rules, it might be possible”, The Conversation, <https://theconversation.com/could-corporations-control-territory-in-space-under-new-us-rules-it-might-be-possible-138939>

¹¹ “The Artemis Accords”, NASA, <https://www.nasa.gov/wp-content/uploads/2022/11/Artemis-Accords-signed-13Oct2020.pdf>

¹² “The Artemis Accords/Principles for a Safe, Peaceful, and Prosperous Future”, NASA, <https://www.nasa.gov/artemis-accords/>

¹³ “Mars & Beyond”, Space X, <https://www.spacex.com/humanspaceflight/mars/>

Any and all signatories of the Artemis Accords: These are countries which are interested in the accords and thereby subscribe to the belief of safe zones.

Space agencies: There are numerous space agencies running under numerous countries. If you want to find out if your country has a space agency you can do so through [here](#).

Relevant UN resolution

[The Outer Space Treaty - 1967](#)

the exploration and use of outer space shall be carried out for the benefit and in the interests of all countries and shall be the province of all mankind;

- outer space shall be free for exploration and use by all States;
- outer space is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means;
- States shall not place nuclear weapons or other weapons of mass destruction in orbit or on celestial bodies or station them in outer space in any other manner;
- the Moon and other celestial bodies shall be used exclusively for peaceful purposes;
- astronauts shall be regarded as the envoys of mankind;
- States shall be responsible for national space activities whether carried out by governmental or non-governmental entities;
- States shall be liable for damage caused by their space objects; and
- States shall avoid harmful contamination of space and celestial bodies.

Possible solutions

One possible solution is to completely disregard the current space laws. By doing these countries would be allowed to establish territorial claim on celestial bodies. Abolishing international law also means that countries will be allowed to obtain materials from celestial bodies and use them for personal use.

Another possible solution is to do as the Artemis Accords and push the boundaries of current international space law. Seeing it from this viewpoint it would be establish and confirm safe zones on celestial bodies distributing them to various UN members. The delegates could distribute these safe zones as they seem fit. It could be a first comes first kind of rule, it could be proportional to the countries size, it could be proportional to the population, or it could be based on GDP, or it could be based on various other factors. It is important to remember that the Artemis Accords also state that countries should not use materials for their own personal gain.

A third possible solution is to tighten the already existing space law. Punish countries which go against these laws or use them for personal gain. This solution could also entail that the UN would oversee most of what is happening in outer space.

As of now the United Nations space law has basically been the actual law of outer space for several decades. That could all change now due to the Artemis Accords aim to push the boundaries of the Outer Space Treaty a lot. Another solution could be to completely disregard all of these suggestions and documents and make a whole new set of rules regarding outer space.

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