



Future Generations
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Research Report

Forum: General Assembly 6

Issue: Meliorating the Rules of Space Colonisation

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Personal Introduction

Miguel Buxó

Mats Dieleman



Hi everyone! I'm Mats Dieleman, and I'll be your co-chair this conference. I'm quite excited!

I'm seventeen years old and graduated from Cals College Nieuwegein last year. I'm currently studying history at Utrecht University. I've participated in a few MUNs, but this is my first time chairing.

In my free time I enjoy reading and drawing maps, and, as it happens, I also play the piano.

I'm looking forward to seeing your takes on space colonisation and diplomatic immunity at the conference! See you then!



Introduction

Ever since humanity started exploring outer space, people have imagined that someday we would live there. Recently, space organisations have been hard at work developing new technologies to make this a reality – but interestingly, many of these have been private businesses, whereas in the past space travel was almost completely the domain of national governments. Conglomerates like Amazon are sending commercial rockets into space, and SpaceX is famously working on a project to colonise Mars.

The UN has had an office to regulate outer space, UNOOSA, since 1958, and member states have ratified two treaties concerning space, but there are as of now no international rules specifically regarding space colonisation. As the possibility appears to be on the horizon, now is the time to ensure that when the first space colony is established, there will already be agreements in place to handle it.



Definition of Key Terms

Outer Space

Though the UN has concerned itself with the regulation of outer space since 1958, there is as of yet no legal definition of what constitutes ‘outer space’. As the Earth’s atmosphere has no clear physical boundary, but rather gradually transitions into a vacuum, it is difficult to define where ‘space’ begins. Of course, it is universally agreed-upon that other celestial bodies, like the Moon and Mars, are part of outer space.

Space Colony

Humans have already been to space on many occasions, and, in the case of the ISS, have stayed there for several months at a time. However, even the ISS is generally not considered a ‘colony’, as it does not have permanent inhabitants. Once again, there is no official definition of a ‘space colony’, but it is generally agreed-upon that a colony must have permanent inhabitants.



General Overview

Space colonies have been hailed as the solutions to many of the modern age's ills – they could alleviate overpopulation, harvest valuable resources, collect solar energy, and provide a refuge in case of global catastrophe. Space colonies are currently somewhat of a blind spot in UN space agreements. Many concerns that may arise when colonies are founded remain unaddressed.

To begin with, there are no clear rules about who may establish space colonies. Nations are forbidden by the Outer Space Treaty from claiming parts of outer space; does founding a colony qualify as making a claim? In that case, are nations not allowed to found space colonies? Should private citizens or corporations be allowed to make claims in space?

Space colonies will need to use resources unless they are totally dependent on supplies from Earth – and resource harvesting is one of the key reasons for founding space colonies. However, to whom do those resources belong? According to the Outer Space treaties, space should not be claimed by nations, but instead used for the benefit of all humanity; what does that mean in this situation? If a private entity harvests resources in space, does it own those resources, or do they belong to 'all humanity'? In that case, who decides what is done with them?

Furthermore, as nations cannot claim outer space, all colonists will be living outside the territory of any nation. If a person is born in outer space, what citizenship do they have? It seems like crimes committed in space should still be prosecuted, just like crimes committed on Earth. However, who has jurisdiction in outer space? Once again, there is the question of whether a nation claiming jurisdiction over a space colony is the same thing as it claiming land in space. Space colonies far away from Earth will have the added difficulty of communication with Earth being limited by the speed of light.

Lastly, and perhaps most pressingly, there is the issue of human rights regulations in space. One concern that is often raised by space colonisation is that it may allow organisations, whether national or private, that establish space colonies to exploit the colonists. In the American West of the 19th century, companies would establish towns around their factories and pay workers in 'scrip' which could only be used in the company store, essentially



preventing them from ever leaving, however mistreated they may be. Without legal regulation of space colonies, the same thing may happen again.



Major Parties Involved

Organisations

UNOOSA

The United Nations Office for Outer Space Affairs was established in 1958. UNOOSA serves to foster international cooperation in space, aid countries in developing their space capabilities, and educate countries about space law. It also works to develop international solutions to problems such as space debris, and maintains the Registry of Objects Launched in Outer Space, which every member state is required to submit information of their launches to.

Spacefaring corporations

Many of the organisations that have announced plans for space colonisation are not governmental space agencies, but rather private corporations. Additionally, most of the spacecraft and materials used by space agencies are manufactured by corporations. Companies such as SpaceX have plans to found their own space colonies, while others, like Boeing and Northrop-Grumman, are key players in national space programs.

Countries

The USA

NASA, the American space agency, plans to establish a permanent base on the Moon with its Artemis program. Astronauts will stay there for up to two months at a time, so it will not be a permanent settlement, but it will be the first time humans have stood on the Moon since the Apollo missions.

China

CNSA, the Chinese space agency, is currently working on the construction of the Tiangong space station, where astronauts will stay for several months at a time. Though it has no concrete plans for a space colony, China is looking to expand its space capabilities.

The UAE

The United Arab Emirates announced its plans to establish a settlement on Mars by 2117 at the World Government Summit in 2017. This program will start with the Emirates Mars Mission in 2024.



Timeline of Key Events

Date	Description of Event
<i>4-10-1957</i>	Sputnik 1, the first artificial satellite to orbit Earth, is launched.
<i>13-12-1958</i>	The General Assembly adopts its first resolution related to Outer Space, Resolution 1348 (XIII), “Question of the Peaceful Use of Outer Space”. UNOOSA is established.
<i>13-12-1963</i>	The General Assembly adopts Resolution 1962 (XVIII), establishing the concept of ‘space law’.
<i>10-10-1967</i>	The ‘Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies’, which regulates the use of outer space, enters into force.
<i>21-6-1969</i>	Neil Armstrong and Edwin Aldrin become the first humans to set foot on the Moon.
<i>11-6-1984</i>	The ‘Agreement Governing the Activities of States on the Moon and Other Celestial Bodies’, which expands on the earlier 1967 Outer Space Treaty, enters into force.
<i>20-11-1998</i>	The first component of the International Space Station is launched.
<i>14-3-2002</i>	SpaceX, a company with the ultimate goal of settling a colony on Mars, is founded.

Previous Attempts to Resolve the Issue

Two important treaties concerning the use of outer space, the Outer Space Treaty and the Moon Treaty have come into force. Neither treaty explicitly mentions space colonisation, only ‘the use of outer space’. However, they do contain a number of clauses that are relevant to this issue. The Outer Space Treaty forbids any military use of outer space, such as the establishment of fortifications or weapons of mass destruction in space, and also forbids nations from making claims to any part of space. The Moon Treaty further tasks nations with taking measures to avoid their actions in outer space disrupting its natural environment, such as by contaminating it with biological material.



Possible Solutions

A very simple way to solve the problem of law enforcement in space colonies would be to simply consider each colony to be under the jurisdiction of a particular nation. However, this would be opposed to the UN's position that space should be international. On international waters, a number of rules apply which are agreed-upon internationally, known as international maritime law. Could there be a similar set of laws for use in space?

Terrestrial countries have offices that inspect corporations and workplaces to ensure they are following labour regulations. A similar organisation could be established to monitor space colonies. However, such an organisation would have difficulty in obtaining information from space colonies; it takes an extremely expensive spaceship to reach Earth or Lunar orbit, and months of time to reach anywhere beyond that. When it comes to colonies on other planets, even radio communication would take hours.



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