

Forum:	DISC (Disarmament and International Security Committee)
Issue:	The question of ensuring sustainability and international cooperation in peaceful uses of outer space.
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Introduction

As resource scarcity and global warming are turning into an issue to an ever increasing extent, we should examine the part of space for what is to come. Regardless of whether we could extricate crude materials, or in reality live on various heavenly bodies, and assuming this is the case, whether we should. The space technology has made rapid progress in recent years. However, several nations lack the human, technical and financial resources needed to carry out basic space activities such as meteorology, communications, and natural resource management. The need to make the benefits of space technology accessible to all countries has, therefore, become more urgent with each passing year.

76 countries form one of the greatest groups of the UN General Assembly which is the Committee on the Peaceful Uses of Outer Space (COPUOS). Beside the examination that has been done on divine bodies, we still cannot seem to discover a use for general data. Additionally, just shard of space has been found and its insider facts presently cannot seem to be revealed.

Moreover, the imprecise regulations and legislation in the outer space treaty can easily lead to territorial, weaponed and communicational conflicts. As the Committee for Disarmament and International Security, we will try to find possible solutions to deal with this issue and come to a resolution.

Definition of Key Terms

Sustainability

A means of configuring civilization and human activity so that society, its members and its economies are able to meet their needs and express their greatest potential in the present, while preserving biodiversity and natural ecosystems, planning and acting for the ability to maintain these ideals for future generations.

Outer space

The expanse that exists beyond earth and around celestial bodies.

It is not completely empty, rather a mixture of a low density of particles, electromagnetic radiation, magnetic fields, neutrinos, dust, and cosmic rays.¹

Low Earth Orbit (LEO)

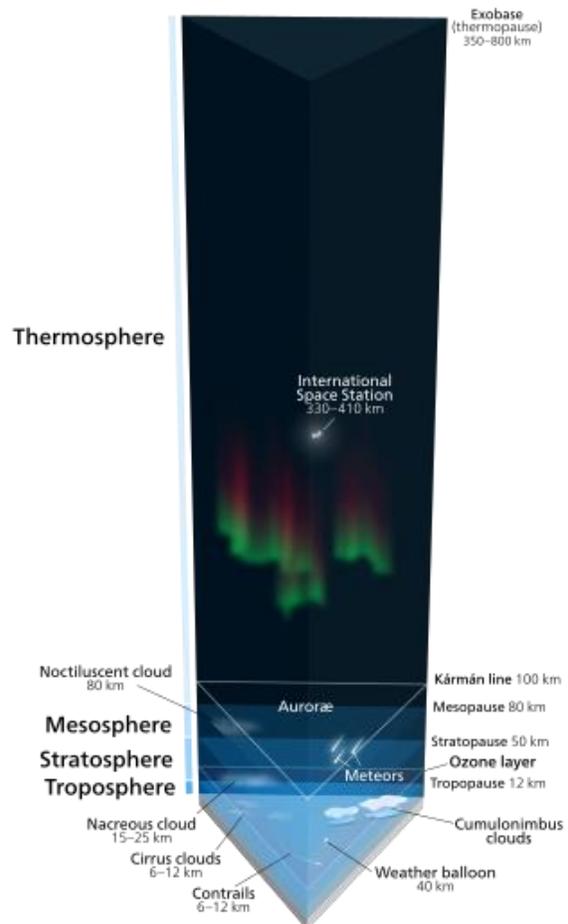
The orbit around the earth of up to 2000 kilometers altitude with an orbital period of about 84 - 127 min.²

Space Race

The mid-20th-century competition between two Cold War rivals, the Soviet Union (USSR) and the United States (US), for dominance in spaceflight capability. Important milestones are:

- The launch of the first human-made object to orbit Earth, the Soviet Union's Sputnik 1, on 4 October 1957.
- The first Moon landing by the American Apollo 11 mission on 20 July 1969.³

Background Information



¹ Wikipedia. Title: Outer Space. URL: https://en.wikipedia.org/wiki/Outer_space

² Wikipedia. Title: Low Earth Orbit. URL: https://en.wikipedia.org/wiki/Low_Earth_orbit

³ Wikipedia. Title: Space exploration. URL: https://en.wikipedia.org/wiki/Space_exploration

There are two main ways to explore the area beyond our own planet: first the study from afar, done by astronomers with the use of telescopes and second the **physical exploration**, done with physical objects made by humans, unmanned or manned (robots, satellites, rockets, etc.); this is the one we would like to focus on and try to regulate.

The first human-made object ever, to enter earth's orbit was the Soviet Sputnik 1 on October 4th, 1957. Since then many more objects like satellites, robots, rockets and others have been launched into space. Most have left a staggering amount of scrap metal and space debris in outer space and earth's orbit. The total mass is estimated to be around 5.500 tonnes.⁴

Although the initial, most significant advances in space travel have been made with a motivation of competition against other countries, especially during the Cold War era, cooperation has proven to be at least just as effective with the launch of the ISS in 1998. It has been continuously occupied by humans for 17 years since the arrival of Expedition 1 in early November 2000 and has functioned as a common goal of many nations to work towards together to explore the potential for future projects in space.⁵

So far there has been little conflict over outer space. However, many expect it to happen, but with uncertainty as to when a conflict might cause "space warfare" to leave the realm of science-fiction and become a matter of reality. With the current cost of travel beyond earth being so high, only a few nations will actually be able to partake in any conflict that was to happen in LEO and above. This can be good and bad: good because then most conflicts stay here on earth where we can control and resolve issues rather easily due to ease of transportation, but also bad because this way these few nations have a monopoly on space travel and could easily restrict entrance for any nation that was to join space travel later on.

Currently human presence in space is mainly due to commercial reasons, like TV, the internet or GPS, and scientific research, which has been without major conflicts so far, but with the expansion into new territories, the potential for conflicts between different nations increases and it is our duty to introduce pre-emptive measures to try and prevent such useless happenings, before we repeat the mistakes of the past.

⁴McKie, Robin and Day, Michael; The Guardian: Feb. 24 2008, Title: Warning of catastrophe from mass of 'space junk'. URL: <https://www.theguardian.com/science/2008/feb/24/spaceexplorationspacejunk>

⁵ Wikipedia. Title: International Space Station. URL: https://en.wikipedia.org/wiki/International_Space_Station

Major Countries and Organizations involved

United States

The United States of America, with one of the biggest economies in the world, have made a significant contribution to the advances of humans in outer space. Their section of the ISS is called “USOS” (United States Orbital Segment), but is shared by many nations.

Russia

Russia, together with the US, has also made significant advances in space exploration like the Sputnik 1, the first human-made object in earth’s orbit. They, too, have a section of the ISS called “ROS” (Russian Orbital Segment) which is also shared by many nations as part of the ISS program.

NASA (National Aeronautics and Space Administration)

An independent agency of the executive branch of the United States federal government responsible for the civilian space program, as well as aeronautics and aerospace research. President Dwight D. Eisenhower established NASA in 1958 with a distinctly civilian (rather than military) orientation encouraging peaceful applications in space science.

Roscosmos

A governmental agency responsible for the space flight of the Russian Federation. The Russian Space Agency is an important partner in the ISS program and helped by providing, for instance, the core space modules Zarya and Zvezda to the space station.

ESA (European Space Agency)

ESA is an intergovernmental organization of 22 member states and headquarters in Paris. Other than it is participation in the ISS program it conducts the launch and operation of unmanned exploration missions to other planets and the Moon, Earth observation, science and telecommunication designing launch vehicles and maintaining a major spaceport.

Relevant UN Treaties and Events

- Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, 13 December 1963, **(RES 1962 (XVIII))**
- Application of the concept of the "launching State", 10 December 2004, **(A/RES/59/115)**
- Recommendations on national legislation relevant to the peaceful exploration and use of outer space, 11 December 2013, **(A/RES/68/74)**

Previous attempts to solve the issue

One of the most important attempts to solve the challenge of ensuring sustainability and international cooperation in peaceful uses of outer space was the Outer Space Treaty. It is signed by 107 members of the UN, but not ratified by 23 UN members. The treaty formed the basis of international space law. It limits and restricts the use of outer space to peaceful use and keeps positive international cooperation. Moreover, it contains key points how to prevent the placing of mass destruction weapons in territories of outer space, which includes the orbit of the earth, on the moon or any other luminaries or stationing in outer space. The treaty, however, does not ban the placement of kinetic bombardment and conventional weapons in outer space. Today this placement is still (theoretically) allowed and has not been solved yet by a resolution.

Possible Solutions

- One might consider aiming for extensive perspectives of space security and related issues that would be instrumental in guaranteeing the protected and mindful conduct of space activities.
- Advancing local and interregional cooperation can avert conflicts between nations.
- There should be thoughts to make stricter controls and enactments to avoid misconceptions and help nations to communicate effectively in circumstances.
- Establishing a legal framework against the use of nuclear power sources in outer space, but also against militarization, weaponization and appropriation.
- The actualization of the current outer space treaty, such as, but not limited to, sharpening down vague expressions.

Bibliography

Wikipedia: “Outer Space Treaty”;
https://en.wikipedia.org/wiki/Outer_Space_Treaty

Wikipedia: “United Nations Committee on the Peaceful Uses of Outer Space”;
https://en.wikipedia.org/wiki/United_Nations_Committee_on_the_Peaceful_Uses_of_Outer_Space

UN Office for Outer Space Affairs: “A/RES/68/74”;
https://static1.squarespace.com/static/5477581be4b05a09c6538c20/t/5918289d59cc68625b3ae338/1494755486597/GA1_ResearchReport.pdf

UN Office for Outer Space Affairs: “A/RES/59/115”;
http://www.unoosa.org/oosa/oosadoc/data/resolutions/2004/general_assembly_59th_session/ares59115.html

UN Office for Outer Space Affairs: “RES 1962 (XVIII)”;
http://www.unoosa.org/oosa/oosadoc/data/resolutions/1963/general_assembly_18th_session/res_1962_xviii.html