COPUOS

Committee on the Peaceful Uses of Outer Space

The Committee on the Peaceful Uses of Outer Space (COPUOS) was set up by the General Assembly in 1959 to govern the exploration and use of space for the benefit of all humanity: for peace, security and development. The Committee was tasked with reviewing international cooperation in peaceful uses of outer space, studying space-related activities that could be undertaken by the United Nations, encouraging space research programmes, and studying legal problems arising from the exploration of outer space.

The Committee was instrumental in the creation of the five treaties and five principles of outer space. International cooperation in space exploration and the use of space technology applications to meet global development goals are discussed in the Committee every year. Owing to rapid advances in space technology, the space agenda is constantly evolving. The Committee therefore provides a unique platform at the global level to monitor and discuss these developments.

The Committee has two subsidiary bodies: the Scientific and Technical Subcommittee, and the Legal Subcommittee, both established in 1961. The Committee reports to the Fourth Committee of the General Assembly,

which adopts an annual resolution on international cooperation in the peaceful uses of outer space.

Space Law Treaties and Principles

The Committee on the Peaceful Uses of Outer Space is the forum for the development of international space law. The Committee has concluded five international treaties and five sets of principles on space-related activities.

These five treaties deal with issues such as the non-appropriation of outer space by any one country, arms control, the freedom of exploration, liability for damage caused by space objects, the safety and rescue of spacecraft and astronauts, the prevention of harmful interference with space activities and the environment, the notification and registration of space activities, scientific investigation and the exploitation of natural resources in outer space and the settlement of disputes.

Each of the treaties stresses the notion that outer space, the activities carried out in outer space and whatever benefits might be accrued from outer space should be devoted to enhancing the well-being of all countries and humankind, with an emphasis on promoting international cooperation.

TREATIES

The treaties commonly referred to as the "five United Nations treaties on outer space" are:

Here is a link to a combined document of all the treaties :

https://www.unoosa.org/res/oosadoc/data/documents/2017/stspace/stspace61rev_2_0_html/V1605998-ENGLISH.pdf

- The "Outer Space Treaty"
    - Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies
    - Adopted by the General Assembly in its resolution 2222 (XXI), opened for signature on 27 January 1967, entered into force on 10 October 1967
- The "Rescue Agreement"
    - Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space
    - Adopted by the General Assembly in its resolution 2345 (XXII), opened for signature on 22 April 1968, entered into force on 3 December 1968
- The "Liability Convention"
    - Convention on International Liability for Damage Caused by Space Objects

    - Adopted by the General Assembly in its resolution 2777 (XXVI), opened for signature on 29 March 1972, entered into force on 1 September 1972

- The "Registration Convention"
    - Convention on Registration of Objects Launched into Outer Space
    - Adopted by the General Assembly in its resolution 3235 (XXIX), opened for signature on 14 January 1975, entered into force on 15 September 1976
- The "Moon Agreement"
    - Agreement Governing the Activities of States on the Moon and Other Celestial Bodies
    - Adopted by the General Assembly in its resolution 34/68, opened for signature on 18 December 1979, entered into force on 11 July 1984.

The Need for Updation

Generally, international space law falls into two categories: 1) binding or normative instruments such as treaties, standards, and national regulations, and 2) non-binding agreements which are used to convey voluntary, non-normative and/or aspirational ideals that may be too

difficult to achieve international consensus on. These two types of agreements largely work in tandem to make up the global space governance framework that exists today.

Global space governance was born out of the Cold War era, where only a few actors—namely the United States (U.S.) and the Soviet Union—had access to spaceflight or launch capabilities. In today's world, however, 72 nations claim to possess space agencies and 14 are capable of orbital launch. Unfortunately, this means that low-to-middle income countries have been largely excluded from writing the rules that are still in place over half a century later. Furthermore, the five foundational United Nations (U.N.) space treaties—which make up the backbone of the global space governance framework—are products of their time which explains their particular emphasis on preventing the militarization and colonization of space. With the rapid pace of space development, however, the future of space governance will need to encompass additional threats brought on by novel changes to the global order

Basically the current laws exclude everyone but the main countries of the past such as the US,Russia and some Euro nations. However now countries like India, South Korea, China etc. also want a piece of the pie.

Major Topics to Discuss

Privatisation of Space

All the space treaties can be defined in one simple sentence. Space has been defined as the “common heritage of mankind”. Every country has an equal stake in space and its resources. Atleast thats the ideal situation.

In reality only a few countries who have the ability to use space can actually make commercial use of it. Countries such as the US already have private companies ready to go into space. There are currently no regulations on companies at all. It is entirely possible that while most of the world has not even launched its first independent rocket private companies from wealthy countries may deplete the resources in space.

The only country to explicitly state that its private companies have freedom to commercialise space is the US.

Its pivotal policy is AMERICA FIRST AMONG THE STARS

https://aerospace.csis.org/wp-content/uploads/2018/09/Trump-National-Space-Strategy.pdf.

Militarisation of Space

Space has been used for military purposes for decades, albeit limited to the deployment of non-offensive military systems such as communications, navigation, imaging and surveillance satellites. Several countries, including the UK have developed a comprehensive space-based military architecture to facilitate military activities on the ground.

However, space is becoming an increasingly contested environment. The last few years has seen a proliferation in the number and type of actors

operating in space, and a growing interdependence between the military, civil and commercial space sectors.

Protecting critical space-based assets, both civilian and military, has therefore become a priority. Space is also increasingly viewed as a military domain in its own right, as countries look to utilise space to enhance their own military capabilities and security.

In the last few years there has been considerable investment by several states, most notably Russia and China, in offensive counterspace capabilities that potentially threaten the use of space by the UK and its allies. The US has responded by calling for a rapid increase in the development of counterspace capability and the adoption of more aggressive space policies and postures.

The space treaties mention

“Recalling resolution 1884 (XVIII), calling upon States to refrain from placing in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction or from installing such weapons on celestial bodies, which was adopted unanimously by the United Nations General Assembly on 17 October 1963”

The problem is vagueness, what constitutes as “weapons of mass destruction”, it was always interpreted as nuclear weapons in the past but now “destruction” has a different meaning. The world depends on the internet and satellites, it is run by bytes no bullets. So “destruction” could also mean destroying a country’s satellites. Also “mass destruction” could be interpreted in way that would indicate that normal weapons like guns, short rang missiles etc. are allowed in space. Defining and dealing with these terms is very important.

Hint : google your countries stance on the military in space as everyone has a different opinion

Commercial Use of Space

In 2019, 95% of the estimated $366 billion in revenue earned in the space sector was from the *space-for-earth* economy: that is, goods or services produced in space for use on earth. The space-for-earth economy includes telecommunications and internet infrastructure, earth observation capabilities, national security satellites, and more. This economy is booming, and though research shows that it faces the challenges of overcrowding and monopolization that tend to arise whenever companies compete for a scarce natural resource, projections for its future are optimistic. Decreasing costs for launch and space hardware in general have

enticed new entrants into this market, and companies in a variety of industries have already begun leveraging satellite technology and access to space to drive innovation and efficiency in their earthbound products and services.

In contrast, the *space-for-space* economy — that is, goods and services produced in space for use in space, such as mining the Moon or asteroids for material with which to construct in-space habitats or supply refueling depots — has struggled to get off the ground. As far back as the 1970s, research commissioned by NASA predicted the rise of a space-based economy that would supply the demands of hundreds, thousands, even millions of humans living in space, dwarfing the space-for-earth economy (and, eventually, the entire terrestrial economy as well). The realization of such a vision would change how all of us do business, live our lives, and govern our societies — but to date, we've never even had more than 13 people in space at one time, leaving that dream as little more than science fiction.

Regulations must be put in place, humankind has already demonstrated in grand manner the way it can deplete resources rapidly leaving a tremendous shortage. Just look at the Earth for reference.

SPACE MINING is a very interesting subtopic in this space, asteroid are rumored to be rich in precious metals and resources.

https://web.mit.edu/12.000/www/m2016/finalwebsite/solutions/asteroids.html

Space Debris and ways to mitigate it

The rising population of space debris increases the potential danger to all space vehicles, including to the International Space Station and other spacecraft with humans aboard, such as SpaceX's Crew Dragon.

Orbital debris is any human-made object in orbit about the Earth that no longer serves a useful function. Such debris includes nonfunctional spacecraft, abandoned launch vehicle stages, mission-related debris, and fragmentation debris.

There are approximately 23,000 pieces of debris larger than a softball orbiting the Earth. They travel at speeds up to 17,500 mph, fast enough for a relatively small piece of orbital debris to damage a satellite or a spacecraft. There are half a million pieces of debris the size of a marble or larger (up to 0.4 inches, or 1 centimeter) or larger, and approximately 100 million pieces of debris about .04 inches (or one millimeter) and larger.

There is even more smaller micrometer-sized (0.000039 of an inch in diameter) debris.

Even tiny paint flecks can damage a spacecraft when traveling at these velocities. A number of space shuttle windows were replaced because of damage caused by material that was analyzed and shown to be paint flecks. In fact, millimeter-sized orbital debris represents the highest mission-ending risk to most robotic spacecraft operating in low Earth orbit.

If the problem of space debris continues eventually the launch of vessels into space will become nearly impossible due to the sheer amount of debris.

We must convene on methods to track, destroy and collect debris in space.

Hint : Many countries and universities have published papers on this topic containing novel methods, check those out and suggest them in committee talking about pros and cons of each method.

Extra Resources

https://www.nasa.gov/mission_pages/station/research/experiments/explorer/search.html

https://www.unoosa.org/oosa/en/ourwork/copuos/current.html

https://libguides.law.uconn.edu/c.php?g=1047257&p=7599729

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