CALTRAIN'25

UNITED NATIONS

GENERAL ASSEMBLY

FOURTH COMMITTEE

SPECPOL

STUDY GUIDE

Agenda Item: Safeguarding the Sustainability and Ethics of Space Habitation

Academic Assistant: Maide Cemile Kaplan

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1. Letter from the Secretary Generals

Esteemed Participants,

As the Co-Secretary-Generals of Cağaloğlu Model United Nations, it is our distinct honor to welcome you all to the 2nd edition of CALTRAIN, which will take place on December 6th and 7th, 2025. It is with great pleasure that we present the study guide for SPECPOL, which aims to equip you with the essential knowledge and context for the upcoming two days. After months of preparation and dedicated effort, we are proud to say that we are now just one step away from CALTRAIN 2025. We hope that, by reading this guide, you will feel as ready and enthusiastic as we are. Without a doubt, this conference would not be possible without the contributions of our remarkable academic team. We are extending our gratitude to our Head of Academy, Azra Kayar; our Heads of Crisis, Ahmet Taha Özkul and his deputy Elif Köse; our devoted and hardworking team members; and our motivated trainees. Their commitment and passion have brought this vision to life and elevated CALMUN's academic quality to its peak. Furthermore, I would also like to extend my best wishes to all delegates participating in CALTRAIN 2025. Whether this is your first conference or not, we thank each of you for taking a step forward and joining us. We truly hope that CALTRAIN will be a special experience that you will remember warmly in the future. From our perspective, MUN is about motivation, enjoyment, meaningful discussion, and connection. We wish each delegate an inspiring, engaging, and memorable experience.

Warm regards,

Meryem Sultan Çok, Akay Engin

Co-Secretary-Generals of CALTRAIN'25

2. Glossary

Ballistic Missile: Is a type of missile ,rocket weapon, that follows curved paths after its launch and hits a target. It is launched way high up and once it is high enough the engine turns off. The missile starts free falling and hits the target.

Celestial Bodies: Is a term to refer to any kind of object in outer space that the astronomers observe. Planets, stars, moons, asteroids, comets, nebulae and galaxies are examples of celestial bodies.

Colonization: The act of settling and establishing control over an area and the people there.

Collision: When a moving object violently hits into the other, crash, bump.

Debris: Small pieces left from something that is broken down or destroyed, remains. Space debris is a phrase commonly used to refer to the pieces left from retired satellites, failed missions or anything artificial that has no use but still remains in space.

Kessler Syndrome: It describes a situation in which the density of objects in low Earth orbit becomes so high due to space pollution that collisions between these objects increase and exponentially raise the amount of space debris over time.

Low Earth Orbit (LEO): The area of the space where the artificial satellites and space stations orbit. It is about 160 to 2,000 kilometers above Earth's surface making it close to the Earth's surface allowing faster data transformation and lower launch costs.

Satellite: An artificial device that orbits around the planets or their natural satellites to collect information or provide communication. The Moon is a natural satellite of the Earth and Sputnik 1 could be given as an example as an artificial satellite.

3. Introduction

With the ever-accelerating degradation of the Earth's resources and environment, the idea of expanding human habitation into outer space or onto celestial bodies is no longer a distant fantasy, it is becoming ever more a necessity. Developments in propulsion systems, life support, and robotics have brought us nearer than ever before to turning this vision into reality. Whereas in the past the preserve of science fiction, space colonization is now a real target for both state and private actors.

With this new era, mankind is not only traveling to space for research, but for commercial gain as well. We are at the point where it is possible to own, ship, and even make money off of space resources. There are private enterprises and governments funding missions that want to mine asteroids, build lunar bases, and establish sustainable life systems to aid in colonizing Mars.

But with these options also come huge ethical, legal, and environmental issues. As we begin to utilize space as a potential expansion of our home planet, we must consider how to rule over it wisely, too. Space is a delicate environment, and forming a habitation there could lead us to repeat the same mistakes —uncontrolled exploitation, unequal access, ecological degradation, and geopolitical conflicts— we have made on our planet.

The new norm creates new needs therefore the space habitation environment needs its own standard international regimes with a priority for sustainability, equity, and peaceful cooperation.

4. Overview

The Outer Space Treaty (OST) was a great step towards a settlement about the use of space and it has succeeded in protecting many essential matters regarding outer space. However, the treaty also has many parts that it fails to cover. The treaty clauses are mostly ambiguous due to the time the treaty was written. In the 1970s, space exploration had not reached the heights that it is in today. As colonization efforts progress, there is a need for explicit rules regarding land ownership, resource extraction, and the establishment of territorial claims to avoid potential disputes among space-faring entities. Although space is seen as a human common, it

is a fact that not every nation can benefit from it the same amount as major countries who have invested in space. This creates the question of whether the colonization of space can be completely separated from nationalities and individual private companies. If becoming a multi-planetary species is slowly becoming a necessity, it is impossible to ensure that the new habitation in space won't cause any border or territorial wars such as the ones that we have seen on Earth.

It is a fact that militarization of space is strictly prohibited under the OST, but major powers, such as the US, China, and Russia, now have their own military units specialized in space operations, indicating that space has become a new war-fighting domain.

In addition, space debris must be taken into consideration. There is currently no effective solution to the growing debris cloud, which poses a big obstacle to the future of space habitation. Due to the debris, there have been numerous accidents and crashes which caused the failure of major missions and the growth of the debris dump. International collaboration is essential to further the exploration of space.

When it comes to the social and cultural aspects of space habitation, it is important to ponder all the different cultural and social norms that will be prevalent in space and celestial bodies, which are all seen as common. The preservation of different cultures is essential for diversity and a sense of belonging in communities.

Space habitation is humanity's future, and that is the reason why all nations must come together to create sustainable and ethical agreements, while also being fair and aiming to reduce friction between nations. The benefit of every nation must be sought after.

5. Historical Background

The roots of human-space relationship date back to the early 1950s. Humanities ventures into space started with the launch of Sputnik 1 ,the first artificial satellite to be launched in space and orbit Earth, in 1957. For many countries access to space meant having a great technological power and ideological dominance thus feeding national pride and establishing supremacy in geopolitical competition. Sputnik 1 was launched by the Union of Soviet

Socialist Republics (USSR) and created a competition between states triggering a defining feature of the Cold War rivalry between the United States and the USSR.

During the Cold War as both superpowers strived for extending their influence beyond Earth, worries surfaced over the colonial mindset and militarization of space. The newly independent nations recovering from the decolonization movements of the post-World War II pushed for more of an equitable and peaceful approach to space exploration. These countries emphasized that outer space should be a domain governed internationally for shared benefits not an extension of the territorial inequality of imperialism.

As a result of the global concerns a framework for the governance of the space began to take shape under the UN. The final shape of the framework was the " Outer Space Treaty" known as "Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies". The treaty entered into force in 1967. It was stated that outer space is a province of all human kind. The treaty banned the placement of weapons of mass destruction in orbit and prohibited national appropriation of celestial bodies.

As of May 2025, 117 countries are parties to the treaty ,including all major spacefaring nations, and another 22 are signatories. Even though no country has legally claimed territory in space, and no permanent human habitats exist beyond temporary structures like the International Space Station (ISS), the increasing speed of commercial and governmental space activity has once again caused debates about territorial rights, resource ownership, and ethical responsibility in space.

6. Timeline of Important Events

a. 1957 Launch of Sputnik 1

Sputnik 1 was launched into space in 1957 by the USSR and made history as the first artificial satellite to be placed into orbit. The launch is marked as the beginning of space exploration, which came to be known as the "Space Age". It was also the beginning of the space race. During the Cold War it sparked intense competition between the US and USSR. As a response from the US, later on in 1958 NASA was

created to show the world the US's technological prowess. For the US, NASA was a tool of their Cold War strategy and a centralized, civilian agency that could gather the country around space exploration and fight back Soviet influence.

b. 1967 Outer Space Treaty (OST)

"Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies". The Outer Space Treaty is the foundational framework of space. It is considered the groundwork for all the modern treaties.

c. 1969 Apollo 11 Mission

Apollo 11 Mission is the first ever successful mission that allowed mankind on celestial bodies. The mission revealed the pivotal advancements in rocket technology, navigation, and space travel by showing that it is possible for mankind to travel beyond Earth and return safely. Neil Armstrong ,the first man to walk on the moon, summarized the situation with his famous words "That is one small step for [a] man, one giant leap for mankind,". The mission was also a major Cold War victory for the US against the Soviet Union in the space race.

d. 1979 Moon Agreement

"Agreement Governing the Activities of States on the Moon and Other Celestial Bodies**".** The Moon Agreement is an extended version of the Outer Space Treaty, focusing on how celestial bodies ,especially the moon, should be governed.

e. 1998 First Steps in the Launch and Construction of the International Space Station (ISS)

1998 is a milestone for international cooperation and the beginning of the assembly of the International Space Station. That would be leading in 12 years to the continuous inhabitation of the largest and most complex human-made structure in space; International Space Station. The International Space Station has 5 co-founders: the

US-NASA, Russia-Roscosmos, representing the European countries-ESA, Japan-JAXA, Canada-CSA. The main objectives of the ISS was to test long term human-space missions, conduct scientific researches, promote international cooperation, and gather information and experience for the upcoming Moon and Mars missions. Since 2000 the ISS is a full-time habitan and had more than 20 different countries astronauts.

f. 2007 China's Anti-Satellite (ASAT) Missile Test

In January 2007 China performed its first successful anti-satellite missile test. China ground-launched a SC-19 ballistic missile, struck it against one of its own retired weather satellites in low Earth orbit (LEO) ,Fengyun-1C, destroying it into over 3,000 pieces of trackable debris and tens of thousands of smaller fragments free drifting and orbiting around Earth raising concerns on the space debris crises. This was not an illegal move under the existing space treaties however was considered as a violation of the norms and was seen as irresponsible by other countries.

g. 2015 U.S. Commercial Space Launch Competitiveness Act (CSLCA)

The Commercial Space Launch Competitiveness Act (CSLCA) is based on a ground breaking U.S. law. The law supports and regulates the growth of the private sector in space. The law granted legal rights to the U.S. citizens and private sectors on commercial exploration in space and use of space resources which meant that the U.S. citizens and companies were from that time on allowed to possess, own, transport, use, and sell resources from any kind of celestial bodies.

h. 2020 Artemis Accords

" Principles for Corporation in the Exploration and use of the Moon, Mars, Comets, and Asteroids for Peaceful Purposes". Artemis Accords aims to set a common vision for an accountable space exploration process and tries to ensure every activity in

space is conducted safely and sustainably. The Accords are frameworks of voluntary collaborations between the United States government and other world governments strengthening the U.S. leadership in shaping space norms.

i. 2021-2023 A New Era of Commercial Access to Space

The time between 2021-2023 is marked as the turning point of space exploration, the rise of regular private spaceflights and the onset of space tourism which was no longer a concept, but a realistic business with paying customers. Private companies such as Blue Origin, Virgin Galactic and SpaceX held their own touristic space visits.

j. 2024+ The Planned Artemis III Mission

The Artemis III Mission is a mission planning to bring mankind to the Moon once again after 50 years. It is a part of NASA's broader "Artemis Program". The mission aims to land the first woman and the next man on the lunar surface.

7. Key Issues at Hand

a. Legal Ambiguity and the Outer Space Treaty

The base of the current international space law is the 1967 Outer Space Treaty (OST), which establishes that outer space shall be used for peaceful purposes, and prohibits national appropriation by sovereignty, use, occupation, or any other means. However the Outer Space Treaty does not have enough clarity on ownership, territorial claims and private enterprise regulation. With the appearance of private space companies like SpaceX, Blue Origin, and others, there is increasing pressure to revisit the OST to address the commercial realities of 21st-century space activity. Some states argue that it is outdated and should be amended; others fear changing the OST may weaken peace. The debate leaves us with a single question in mind: is there a way to adapt space law to modern needs without threatening the peaceful and cooperative nature of space exploration?

b. Equity and Access

Space is said to be a "common heritage of humankind", however only a few states have the budget and technology to explore it thus the global space race is becoming

increasingly dominated by a small group of capable and wealthy nations, including the United States, China, Russia, India, and members of the European Space Agency. This imbalance raises ethical concerns about fair access to the benefits of space exploration and resource utilization, bringing up the question “Should wealthier states fund and technologically support others to help them explore space? ”

c. Militarization of Space

In the Outer Space Treaty it states that “weapons of mass destruction” are banned from space, though not all military activities are banned. Throughout the years the loophole has helped countries like the US, China and Russia create space forces without violating the OST. With the recent anti-satellite (ASAT) weapons tests , as well as the release of satellites capable of defensive or offensive maneuvers, the tensions have heightened. Lack of transparency and verification mechanisms in the legal frameworks escalates these concerns, making it difficult to differentiate between civilian and military assets in space. Between the peaceful use of outer space and valid defense and surveillance needs, balance is a must.

d. Environmental Risks – Space Debris

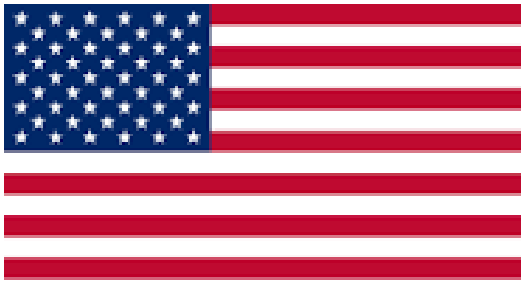
Many retired satellites and debris pieces orbit Earth causing a risk of collision making them both environmental and operational threats. With the Kesler Syndrome becoming handy the orbits may become unusable due to cascading collisions. There are currently no binding international regulations that demand states or private actors to descend retired satellites from orbit or take preventive measures upon the matter. The sustainability of space operations calls for new practices on debris mitigation, removal, and shared responsibility. Many believe that international coordination, technological innovation, and potentially new treaties could be effective approaches upon the matter.

e. Sociocultural and Ethical Challenges

With the arising plans for long-term habitation on the Moon, Mars, and orbital stations, a new set of sociocultural and ethical conflicts has occurred, leaving every nation with questions in their heads:”Which law and culture will govern space?” “Will space settlement ensure diversity, inclusivity, and human rights?” These two

questions lead us to a new one; “Is space becoming a new frontier for a shared human future or is it a new place for inequality to govern?” , making it clear that there is a need to ensure that space does not replicate the inequalities and exclusivity that have afflicted human societies on Earth. A way should be found to secure human rights, diversity, inclusivity, and cultural heritage outside of Earth.

8. Major Stakeholders and Their Positions



UNITED STATES (NASA)

The US supports space habitation for scientific purposes, its economic growth and international prestige. They stand by the private sector —SpaceX, Blue Origin— involvement under US regulatory frameworks. The US advocates for freedom of exploration but gets criticised for corporate dominance and economic incentives. They support the Artemis Accords but resist binding internationally.

CHINA (CNSA)

China has a major effort toward independent space capabilities — Tiangong space station— seeing space as a zone of authority and scientific leadership. China emphasizes peaceful uses of space however do also operate frameworks like the Artemis Accords. China is currently developing its own debris mitigation standards but is criticised for secretive practices.

RUSSIA(Roscosmos)

Russia aims to keep its ongoing influence in space, collaborates with China and is skeptical towards US-led frameworks. Russia is against the militarization of space and supports

sovereignty. Russia also participates in several international sustainability efforts but has a questionable track record with space debris and transparency.

European Union (ESA)

The EU supports global collaboration, peaceful cooperation and sustainability in space as well as regulations for environmental and ethical wellbeing. They stand up for inclusive, democratic, and scientific exploration. The EU plays a significant role in debris mitigation and space environment assessment. They have reusable vehicles & launchers projects planned to be realized in 2027–2030 such as; Space Rider, Themis and Ariane Next. Legal & security regulation plans starting 2023–2025; EU Space Act, EU Space Strategy for Defence.

Developing Countries

The developing countries show their concerns about inequality in access to space technology and a probable risk of a “space divide” . They urge for balanced sharing of benefits from space habitation, technology transfer, and their representation in decision-making structures. They support making the global norms to prevent environmental damage and monopolization of space resources mandatory.

In a COPUOS 2021 debate India stated "Outer space should remain the province of all humankind. We urge for international legal instruments to ensure equitable access and prevent space resource monopolization.".

In an UNGA 2023 debate South Africa stated "Africa must not be left behind in the emerging space economy. We call for equitable capacity-building and access to orbital slots and frequency spectrums.".

In an African Union Space Policy 2022 debate Egypt stated "We emphasize the urgent need for a binding international framework to govern the sustainable use of outer space."

In a COPUOS 2023 debate Indonesia stated "Regional cooperation and South-South technology sharing are key to building inclusive space capabilities."

United Nations (UNOOSA)

The UN seeks for a peaceful use of outer space for all the countries around the world and ensures that the international treaties are upheld. They support no-claiming, benefit-sharing international corporations. Since 2002 the UN has been developing frameworks like the "Guidelines for the Long-term Sustainability of Outer Space Activities."

Private Sector

The private sector is the leader in space habitation technology, leading business initiatives and building space systems. The private sector often prioritizes innovation and profit over ethical debates therefore supports voluntary guidelines rather than mandatory ones. Some companies invest in sustainable practices, others push the limits of unregulated exploration.

9. Previous Attempts to Solve the Issue

- **1967: Outer Space Treaty (OST)**

  “Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies”

  The Outer Space Treaty’s first ever consideration by the Legal Subcommittee was in 1966. Within the same year the agreement was reached in the General Assembly. In January 1967 the treaty was opened for signature by the Russian Federation, the United Kingdom and the United States of America which are the three depository Governments. It entered into force in October 1967. The Outer Space Treaty provides the basic framework on international space law, including the following principles:

1. 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;

2. outer space shall be free for exploration and use by all States;

3. outer space is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means;

4. 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;

5. the Moon and other celestial bodies shall be used exclusively for peaceful purposes;

6. astronauts shall be regarded as the envoys of mankind;

7. States shall be responsible for national space activities whether carried out by governmental or non-governmental entities;

8. States shall be liable for damage caused by their space objects; and

9. States shall avoid harmful contamination of space and celestial bodies

- **1979: Moon Agreement (limited adoption; rejected by major space powers)**
  "Agreement Governing the Activities of States on the Moon and Other Celestial Bodies**".** Between 1972-1978 the Moon Agreement was considered and detailed by the Legal Subcommittee and in 1979 was adopted by the General Assembly. However the agreement did not enter force until Austria ratified it in June 1984. The Agreement had finally entered force in July 1984. The Moon Agreement confirms and elaborates on many of the provisions of the Outer Space Treaty. The agreement provides that the celestial bodies shall be used only for peaceful purposes. Their environment shall not be disturbed. The United Nations shall be informed of the location and purpose of any station to be established on these bodies. The agreement also provides that the Moon and its natural resources are the common heritage of mankind and that, if such use is possible, an international regime should be established to govern the use of these resources.

- **2002–Present: UN COPUOS Debates on Long-Term Sustainability**
  The United Nations Committee on the Peaceful Uses of Outer Space (UN COPUOS) began to show its great part in addressing the long-term sustainability of outer space activities first in 2002. With the quick increase in space actors —both governmental

and private— the potential for space debris, satellite collisions, and irresponsible behavior in orbit has grown significantly. As a result the UN COPUOS began formal discussions on establishing guidelines to make sure that space activities remain safe and sustainable for future generations.

A noteworthy action came in 2010. The UN COPUOS under its Scientific and Technical Subcommittee created the "Working Group" on the Long-Term Sustainability of Outer Space Activities. After nearly a decade of negotiations, the committee adopted 21 voluntary guidelines in 2019. These guidelines covered issues such as:

- Space debris mitigation
- Orbital congestion management
- Information sharing and transparency
- Space weather risks
- National regulatory frameworks

The guidelines are not legally obligatory, however they represent an important international common ground and a baseline for responsible behavior in space. Some of the ongoing debates focus on:

- Implementation and compliance mechanisms
- The role of private sector actors
- Enforcement in case of violations
- The need for a legally binding framework

As space becomes increasingly privatized and militarized, COPUOS continues to be the main UN forum for encouraging dialogue and building a unified stance around sustainable and ethical space governance.

- **2020s: Artemis Accords (US-led initiative for Moon exploration)**

  " Principles for Corporation in the Exploration and use of the Moon, Mars, Comets, and Asteroids for Peaceful Purposes". The Artemis Accords are a set of voluntary cooperative arrangements between the United States government and other world governments detailing the norms expected to be followed in space.The Accords relate to the Artemis program, an American-led attempt to return humans to the Moon by 2027, with the ultimate aim of expanding space exploration to Mars and beyond. The Accords establishes a common vision by implementing a practical set of principles and guidelines. It increases the safety of the operations, reduces uncertainty and promotes the sustainable and beneficial use of space for all mankind. The Accord is a political commitment to the principles which provide for operational implementation of important obligations contained in the Outer Space Treaty.

- **2023: Debris removal and tracking guidelines in preliminary talks**

  Efforts to identify space debris had great refinements in 2023. Especially through new guidelines and initial talks on tracking and removal. The European Space Agency (ESA) introduced a revised "Space Debris Mitigation Policy" that reduced the satellite retirement procedure deadline from 25 years to only 5 years. It also mandates satellites to have at least a 90% chance of successful disposal and be designed with standardized interfaces for possible active debris removal. Enhanced protocols for orbital safety and mission coordination were also introduced.

  These developments were a part of a wider approach toward sustainability, including the launch of the "Zero Debris Charter", a charter signed by over 40 space actors. At the same time, the Inter-Agency Space Debris Coordination Committee (IADC) amended its global guidelines to emphasize end-of-life disposal, passivation, and

better collision prevention, though its recommendations remain suggestive and were never legally enforced .

In the U.S., the Federal Communications Commission (FCC) coordinated with these stricter standards by making a 5-year deorbit rule for low Earth orbit (LEO) satellites mandatory. In addition NASA released adjusted guidelines once again affirming a 25-year deorbit standard and setting strict casualty risk limits for re-entry debris.

Improved tracking accuracy was another concentration of 2023 discussions. NASA reported that without constant observation, debris trajectories could shift by over 100 meters within just a few days, pointing out the need for stronger space situational awareness (SSA) systems.

10. Possible Solutions

- **Global Registry and Licensing Systems**

  A UN moderate global registry could be created for tracking and administering; the celestial body and land uses, resource extraction activities and long term habitation plans. International approval before establishing permanent settlements could be required.

- **Space Demilitarization and Security Measures**

  A new arm control agreement specifically for space should be proposed, verification mechanisms for peaceful uses should be strengthened and confidence-building measures between major powers should be encouraged.

- **Updating and Expanding International Space Law**

  Amendments and alternative treaties that clarifies the legal status of resource ownership in space, defines rules for permanent living and regulates private sector activities should be proposed to the OST. Legally binding protocols for the new space missions should be established through the UN.

- **Debris Mitigation and Environmental Protection**

  End-of-life protocols for all satellites could be made mandatory. Fund joint debris removal missions could be held. Protected orbital zones or no-launch corridors could be designated.

- **Equitable Access and Capacity-Building**

  For the developing nations, a technology transfer program could be supported. A global space fund for research and missions could be raised and resource-sharing clauses in all multilateral space missions could be required.

- **Ethical Governance of Habitation**

  A proposal to create a global space habitation charter focusing on; cultural diversity, inclusivity, non-discrimination in off-Earth societies and human right standards in space settlement should be made.

- **Public-Private Partnerships with Oversight**

  Private innovations should be allowed only under transparent and enforceable international regulations. International licensing for space mining and tourism should be developed. Accountability mechanisms such as fines for environmental damage, should be established for private actors operating in space.

11. Points to Cover

1. What should be done to the OST; should it be updated, replaced, or expanded?
2. Is there a way to ensure that the space is not militarized? How can it be implemented?
3. Who has the right to own or extract resources from celestial bodies?

4. How can developing nations participate equally in space programs? How could they be supported?
5. What ethical frameworks should guide space settlement governance? Which nations should lead the process?
6. How can cultural erasure or new forms of colonialism in space be prevented?

12. Resources and Links for Further Research

https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/moon-agreement.html

https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/intromoon-agreement.html

https://www.unoosa.org/pdf/limited/c1/AC105_C1_2010_CRP03E.pdf

https://www.nasa.gov/wp-content/uploads/2022/11/Artemis-Accords-signed-13Oct2020.pdf?emrc=686ce157e0fa2

https://www.unoosa.org/oosa/en/ourwork/topics/long-term-sustainability-of-outer-space-activities.html

https://www.nasa.gov/wp-content/uploads/2022/11/Artemis-Accords-signed-13Oct2020.pdf?emrc=686ce157e0fa2

https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/outerspacetreaty.html

https://iaaspace.org/wp-content/uploads/iaa/Scientific%20Activity/debrisminutes031911.pdf
https://www.unoosa.org/

https://sciencereader.com/the-ethics-of-space-settlement-with-erika-nesvold/

https://sdgs.un.org/goals