



## Main Model United Nations Conference

Frankfurt am Main, Germany

17<sup>th</sup> Session

10<sup>th</sup> to 13<sup>th</sup> of March 2022

**Challenges of a Changing Global Order – Responding to Emerging Conflicts**

# BACKGROUND GUIDE

COMMITTEE ON THE PEACEFUL  
USES OF OUTER SPACE

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*Main Model United Nations Conference 2022*

1.	Word of Welcome .....	3
2.	Committee for the Peaceful Uses of Outer Space .....	4
2.1.	Short History of Space Exploration .....	4
2.2.	History of the Committee.....	4
2.3.	Mandate and Structure.....	5
2.4.	Important Documents.....	6
2.4.1.	Outer Space Treaty (1967).....	6
2.4.2.	Moon Treaty (1979) .....	7
3.	Topic A: "The Question of Space Exploration by Private Actors" .....	8
3.1.	Introduction.....	8
3.2.	History of the Topic/ Current Situation.....	8
3.3.	Main Actors (in Private Sectors) & Initiatives .....	9
3.4.	Bloc Positions .....	10
3.5.	Guiding Questions.....	11
3.6.	Further Reading .....	11
4.	Topic B: "Ensuring Continuous Peaceful Use of Outer Space" .....	11
4.1.	Introduction.....	11
4.2.	Current Situation .....	12
4.3.	Bloc Positions .....	13
4.4.	Guiding Questions.....	14
4.5.	Further Reading .....	14

## **1. Word of Welcome**

Dear delegates,

Welcome to the Committee for Peaceful Uses of Outer Space (COPUOS). You might find this a quite extraordinary committee to be simulated at a Model UN conference. Topics related to outer space often touch the realm of becoming science fiction. However, most recent developments have shown that space might become one of the most interesting and important spaces (pun not intended) in international law and relations in the century to follow next to the internet. We believe we have chosen topics, that are interesting and relevant and are looking forward to seeing you coming up with resolutions to answer questions left unanswered by previous legislation.

Since this committee requires a solid understanding of the matter, please do not hesitate to reach out to us during preparation and do not be discouraged by the perceived difficulty. We, your chairs, are here to answer your questions related to the rules of procedure, the mandate of the committee or any questions that might come up during the debate itself. If you are participating at a MUN conference for the first time ever, do not be intimidated by the experience of other delegates. Speak up! We all have been to our first conference!

Let us shortly introduce ourselves:

My name is Sofie Sharaf, I am 22 years old, and I am currently living in Frankfurt. I have just finished my Bachelor in Business Administration at the Frankfurt School of Finance and now work full time in the technology sector of a financial institution. My first experience with MUN was visiting my very first conference in 2016 as part of a course in high school and then paused for a while until I joined my university's delegation for NMUN 2019 and visited my first MainMUN that year. Since then, I have been taking part in various MUNs across the globe as chair, delegate, and secretary general and have trained our university delegation. COPUOS combines my (hobby) interests in astrophysics and international law, so I am very happy to be chairing this committee together with my colleague.

My name is Leonard Jelsch and I am 20 years old. Studying at the Frankfurt School of Finance and Management, I am now in my 6<sup>th</sup> semester in my Bachelor in Business Administration and just started working in a financial technology start-up. I have been part of the Frankfurt School MUN initiative since 2019, currently leading it as one of its heads, and have also visited different MUN conferences. I have always been very interested in the exploration of space and the development of different fields of business in space. Especially with the advancements we have seen in these fields in recent years, some fascinating new questions for the international community present themselves. During the conference, I hope you will enjoy researching and engaging with the topics like we did.

See you at the Conference!

Sofie Sharaf

Leonard Jelsch

## **2. Committee for the Peaceful Uses of Outer Space**

Geopolitics have been a topic that state sovereigns had to deal with for centuries. The geography of their country and the country around them has heavily influenced their countries fate. The foundations of international law building on a country's sovereignty have been formed in a time, where borders were defined and could be debated upon. However, the advancement in technology has opened the floor to two new spaces that will shape how we do realpolitik in the current and following century: Cyber Space and the Outer Space. Tim Marshall speaks about the rise of astropolitik<sup>1</sup> – astropolitical realpolitik- that will make outer space not only a room for science fiction but actual politic and actual conflicts around resources and room, if not addressed properly. For questions concerning outer space the United Nations have entitled the Committee on the Peaceful Uses of Outer Space, that we will simulate at this year's MainMUN.

### **2.1. Short History of Space Exploration**

In order to better contextualize the history of the committee and space related legislative milestones, you will find a short sketch of the most important milestones in space exploration.<sup>2</sup>

- 1957: First artificial satellite in space (Sputnik 1) and mammal in space (Sputnik 2)
- 1961: First humanoid in space followed by the first human in space
- 1963: First women in space
- 1965: First space walk
- 1969: First human on the moon, also first sample from the moon
- 1971: First space station
- 2014: First controlled landing on a comet (Rosetta)
- 2020: First orbital human spaceflight launched by a private company (Demo-2)

### **2.2. History of the Committee**

After the launch of Sputnik 1, international interest in the question of outer space rose. The reaction was the formation of an ad-hoc committee with 18 members. Following that, the Committee on the Peaceful Uses of Outer Space (COPUOS) was formed in 1959 by General Assembly Resolution A/RES/1472 with 24 member states joining. In this resolution the United Nations expressed their desire to achieve peaceful use of outer space. The formation of COPUOS expressed the fear of member states of outer space becoming a venue for the cold war.

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<sup>1</sup> Tim Marshall (2021), Power of Geography, p.311

<sup>2</sup> Wikipedia, "Timeline of Space Exploration", last retrieved 08.12.2021 from [https://en.wikipedia.org/wiki/Timeline\\_of\\_space\\_exploration](https://en.wikipedia.org/wiki/Timeline_of_space_exploration)

Its current headquarters is located in Vienna, Austria. COPUOS convenes annually around End of August/ beginning of September to discuss topics under its mandate and then reports to the General Assembly, which adopts an annual resolution implementing the outcomes of the COPUOS session. Currently COPUOS counts 95 member states.

Since 1962 multiple (Non-)governmental observes have joined COPUOS, the European Space Agency (ESA) being one of the first to join. Recently, COPUOS was also joined the Moon Village Association. The different NGOs joining over time represent the development of interests regarding space exploration.

### **2.3. Mandate and Structure**

In A/RES/1472 the main purpose of COPUOS was stated as “to review, as appropriate, the area of international co-operation, and to study practical and feasible means for giving effect to programmes in the peaceful uses of outer space which could appropriately be undertaken under United Nations auspices”<sup>3</sup>. In the following subclauses, the resolution highlights the main aim to research and create a platform to share that research. It also specifies that legal questions should be addressed by the committee.

The aim stated in the forming resolution reflects well in the structure of COPUOS. It is served by two subsidiary bodies. The first being the Scientific and Technical Subcommittee and the Legal Subcommittee. COPUOS is further served by the United Nations Office of Outer Space (UNOOSA) that is also responsible for the United Nations Platform for Space based Information for Disaster Management and Emergency Response (UN SPIDER) based in Bonn, Germany and entertains multiple “Space4” programs promoting equal access to space for different groups and best uses of resources from space as for example “Space4Youth” or “Space4Water”.

COPUOS played a lead role in establishing the five principles of outer space and the five main space treaties. The five principles contain legal outlines that can be seen as a shared basic understanding of the aims of the use of outer space by COPUOS. Every principle is backed by a General Assembly Resolution.

The principles are<sup>4</sup>:

- The Nuclear Power Sources Principles
- The Broadcasting Principles
- The Declaration of Legal Principles
- The Remote Sensing Principles
- The Benefits Declaration

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<sup>3</sup> United Nations, A/RES/1472, 12.12.1959,

<sup>4</sup> UNOOSA, “Space Law Treaties and Principles”, last retrieved: 08.12.2021 from <https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties.html>

Recent developments have enriched the work of COPUOS, as the further development of technologies arises new questions in legislation and the definition of peaceful use.

## 2.4. Important Documents

Together with the five principles introduced in the section above, COPUOS names five main treaties. Two of which shall be further introduced in the following sections, as they are relevant for the discussion at MainMUN 2022<sup>5</sup>. The main purpose of the treaties is to strengthen the founding cause of COPUOS by enriching the space legislation. They state

“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.”<sup>6</sup>

This clearly stresses the mission of COPUOS to share the benefits of space exploration with all. The treaties introduced as the five most important treaties concerning outer space are of more practical nature, to create a legislative framework for countries to work within. The five treaties are, again all adopted as a General Assembly Resolution:

- The Outer Space Treaty (1967)
- The Rescue Agreement (1968)
- The Liability Convention (1972)
- The registration Convention (1975, into force 1976)
- The Moon Agreement, also nicknamed the Moon Treaty (1979, into force 1984)

As with many topics, the United Nations seem to be rather reactive with their legislation and delegates should be aware of the history of space exploration to be able to correctly place the treaties in their historical context.

### 2.4.1. Outer Space Treaty (1967)

The full name of the Outer Space Treaty is “Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies”. Its formal name is A/RES/2222. It came into force the same year it was opened for signature in 1967 and is thus

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<sup>5</sup> UNOOSA provides an overview of the ratification status of those treaties here:

[https://www.unoosa.org/res/oosadoc/data/documents/2021/aac\\_105c\\_22021crp/aac\\_105c\\_22021crp\\_10\\_0\\_html/AC105\\_C2\\_2021\\_CRP1OE.pdf](https://www.unoosa.org/res/oosadoc/data/documents/2021/aac_105c_22021crp/aac_105c_22021crp_10_0_html/AC105_C2_2021_CRP1OE.pdf)

<sup>6</sup> UNOOSA, “Space Law Treaties and Principles”, last retrieved: 08.12.2021 from <https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties.html>

the oldest of the five important treaties. Currently it is ratified by 110 member parties with 89 having it signed, but not yet ratified.<sup>7</sup>

The Outer Space Treaty refers to the “Declaration of Legal Principles” introduced in the section before. Probably the most important idea of the treaty, introduced in Article IV, is, that it prohibits the stationing of weapons of mass destruction in outer space and stresses the importance as the moon as a peaceful zone. Another important idea is stated in Article VI-VIII, in which countries are regarded liable for any damage any space activity might cause. As the treaty explicitly names “state parties” responsible, the question arises, which principle applies to non-state actors. The third important idea is that space and benefits derived from space exploration should be accessible for all countries, regardless of their development.

The Outer Space Treaty is often criticized for being incomplete and out of date when it comes to the most recent developments. Especially Article II, which states, that “Outer Space [...] is not subject to national appropriation or claim of sovereignty, by means of use or occupation or by any other means”<sup>8</sup>, might be contrary to the interests of many countries and private actors to colonize parts of celestial bodies or extract resources from it.

#### **2.4.2. Moon Treaty (1979)**

The “Moon Treaty”, also known as the “Moon Agreement”, formally introduced as A/RES/34/68E with the full title “Agreement Governing the Activities of States on the Moon and Other Celestial Bodies” was opened for signature in 1979 but came into force five years later in 1984.

The treaty explicitly declares the moon as a peaceful zone while also telling countries to report any planned (research) activities on the moon. The idea of a reporting scheme towards the United Nations can be seen as controversial, especially under the light of the still current cold war at the time of the agreement, as it would mean openly talking about their research projects. Further, the creation of the proposed “international regime [...] to govern the exploitation of the natural resources of the moon”<sup>9</sup> might have been unattractive for many member states, as at the point in time many actors have suspected rare minerals on the moon.

The treaty also introduces the idea of environmental preservation on the moon, while allowing to extract samples for scientific purposes. It repeats that moon territory shall not be claimed by any state party but allows the establishment of research “facilities” on the moon, which could lead to tension in the interpretation of the relation of those articles.

The moon treaty reinforces the idea of individual responsibility for any actions carried out in space. Again, this treaty focuses on intergovernmental and international actors, not creating a framework for non-governmental actors.

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<sup>7</sup> Arms Control Association, “The Outer Space Treaty at a Glance”, last retrieved 08.12.2021 from <https://www.armscontrol.org/factsheets/outerspace>

<sup>8</sup> United Nations, A/RES/2222, 1967

<sup>9</sup> United Nations, A/RES/34/68E

The main critique point on the Moon Treaty is, that it seems ineffective, since the biggest players have not ratified it. It might be interesting for delegates to think about the reasons why their country has or has not ratified this treaty.

### **3. Topic A: “The Question of Space Exploration by Private Actors”**

#### **3.1. Introduction**

In recent years, multiple private actors have established themselves as players in outer space. As a recent example, Blue Origin, SpaceX and Dynetics competed for building NASA's new Moon landing module at the beginning of 2021. But their ambitions are not constrained to government contracts, and different private space companies are planning on sending astronauts to the moon or even to Mars within the decade.

This new private space race has already started in low-earth orbit, where SpaceX, Blue Origin, as well as Virgin Galactic are the main competitors in the new field of space tourism. Another market in which different private actors compete is satellite internet: A large number of satellites for the competing “starlink”- and “kuiper”- internet services have already been launched.<sup>10</sup> As the scope of these corporations moves further away from earth and towards colonialization and exploitation of resources on celestial bodies, a multitude of questions arise as to how to bind these corporations to international law. Within this framework, the Committee on the Peaceful Uses of Outer Space should discuss how to update international law to hold private actors accountable to the legal standards of the international community and how to enforce these laws.

#### **3.2. History of the Topic/ Current Situation**

Private actors have been involved in developing technologies for government agencies since the establishment of NASA in 1958. In fact, during the existence of this agency, 85-90% of its funding went to private contractors. Over the following decades, private spaceflight companies in the United States became ever more independent from government contracts and looked for ways to monetize spaceflight in space tourism, research, communication or cargo transport among other fields of business.<sup>11</sup>

The emergence of private spaceflight companies accelerated around the 2000's. Companies like Blue Origin, SpaceX, Bigelow Aerospace, LinkSpace and S7 Space Transportation Systems LLC are

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<sup>10</sup> <https://marketrealist.com/p/project-kuiper-vs-starlink-vs-oneweb/>

<sup>11</sup> <https://www.cfr.org/backgrounder/space-exploration-and-us-competitiveness>

developing modules for space stations, satellites, engines or entire launch systems in Russia, China and the United States and all over the world.<sup>12</sup>

With a global trend of private space companies pursuing their own interests, questions regarding property rights or government representation in space re-emerge: The space treaties introduced in 1.4 discussed can hardly be applied to private space exploration. Elon Musk, the founder of the private spaceflight corporation SpaceX, brought up the issue of how to govern a mars colony by suggesting the implementation of a direct democracy at the SXSW conference in 2018.<sup>13</sup>

### **3.3. Main Actors (in Private Sectors) & Initiatives**

Private Spaceflight companies, as previously discussed, have emerged in most of the developed world and even in some developing nations. In the specific area of private space exploration and exploitation, the biggest players reside in the United States, China and Russia.

The most popular private actor that can be seen as an independent protagonist in the pursuit of exploring and colonizing space is SpaceX. Founded in 2002 by Elon Musk, the company had its first successful rocket launch in 2008.<sup>14</sup> Among competitors like Blue Origin, SpaceX is a good example of a spaceflight corporation acting ever more independently from government contracts, as Musk has his very own vision of landing people on Mars before 2030 and eventually establishing a colony there.<sup>15</sup>

Blue Origin, focused more on space tourism, was founded by Jeff Bezos in 2000. In July of 2021, Bezos flew to space in Blue Origin's New Shepard rocket. Competing with the other big player in the new space tourism market, Virgin Galactic, more flights are scheduled for the future, with the potential to make space tourism accessible for a growing number of people.<sup>16</sup>

As discussed in 2.1, corporations like Amazon Kuiper, OneWeb or SpaceX's Starlink are the main players in the increasingly competitive satellite internet market. While they could provide affordable and fast internet around the globe even in regions with less developed infrastructure, growing concerns about the accessibility of space lead China to demand the United States stop Starlink's ambitious plans to launch 42,000 small satellites to complete its network.<sup>17</sup> This dispute illustrates that many private actors of different sizes operating a wide range of different markets yield a risk of diplomatic conflict.

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<sup>12</sup> <https://www.openupnow.org/history-of-private-spaceflight-companies/>

<sup>13</sup> <https://www.inverse.com/article/42190-elon-musk-predicts-martian-government-sxsw>

<sup>14</sup> <https://www.britannica.com/topic/SpaceX>

<sup>15</sup>[https://www.businessinsider.com/elon-musk-mars-spacex-land-starship-rockets-2030-europe-2021-3?IR=T&r=US&utm\\_medium=referral&utm\\_source=yahoo.com](https://www.businessinsider.com/elon-musk-mars-spacex-land-starship-rockets-2030-europe-2021-3?IR=T&r=US&utm_medium=referral&utm_source=yahoo.com)

<sup>16</sup> <https://edition.cnn.com/2021/07/20/tech/jeff-bezos-blue-origin-launch-scn/index.html>

<sup>17</sup> <https://www.businessinsider.com/chinas-starlink-complaints-highlight-satellite-crowding-in-space-2022-1>

### 3.4. Bloc Positions

Within this topic, member states must assess the number of spaceflight corporations under their jurisdiction and how to represent them. Big players like China, Russia or the United States have different perspectives on how independently spaceflight companies should be allowed to act and how important this industry is to advance their success as a nation. In addition to regulation, government contracts and subsidies play a big role in directing private space companies. Germany, being part of the European Space Agency, is home to many spaceflight companies like Isar Aerospace. However, government spending in this industry sector is comparatively low. This is partly because other industry branches like the automotive industry or the energy sector are of higher priority according to German economic policies.<sup>18</sup>

Russian privately-owned space corporations have until recently been heavily controlled by the government or were only allowed to operate in collaboration with state-run corporations<sup>19</sup> Similarly, China continues to exert control over bigger private spaceflight companies.<sup>20</sup> Member states with a developing spaceflight industry, like India, might have a different approach on government control over these companies, as the potential of the space industry to facilitate economic growth might lead to a state deregulating this industry.<sup>21</sup>

Member states without a spaceflight industry might be most interested in reaffirming the principles laid out in the space treaties introduced in 1.4 regarding equal access to research and resources. As a coalition to represent undeveloped or developing nations, the Group of 77 was established in 1964 to ensure that they will not be excluded from the vast opportunities of exploring and exploiting space. The group continues to advocate for an equitable distribution of resources acquired in space and against nations taking possession of orbits or objects in space.<sup>22</sup>

Apart from the question of how to address private spaceflight corporations acting independently, they continue to play a role for member states to establish a foothold in space. The Artemis Accords, under the leadership of the United States, was signed in October of 2020 by eight countries to start a new phase of moon exploration and return humans to the moon by 2024.<sup>23</sup> As a reaction, in June of 2021, China and Russia announced they would cooperate to build a lunar base in 2024.<sup>24</sup> This new polarization of different state actors could indicate fierce technological competition and territorial disputes between state actors in space. Therefore, when evaluating the role of private space industry, member states should also reflect on the effects these initiatives have on this sector.

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<sup>18</sup><https://www.defensenews.com/top-100/2021/07/12/the-german-new-space-industry-is-booming-so-why-isnt-berlin-buying-in/>

<sup>19</sup> <https://spacewatch.global/2018/03/russian-state-run-private-space-industry-problems-cooperation/>

<sup>20</sup> <https://www.wired.co.uk/article/china-private-space-industry>

<sup>21</sup> Rajagopalan, Rajeshwari Pillai; Prasad, Narayan (2017). Space India 2.0: Commerce, Policy, Security and Governance Perspectives. Observer Research Foundation. ISBN 978-81-86818-28-2.

<sup>22</sup>[https://www.unoosa.org/documents/pdf/copuos/2021/statements/item\\_7\\_Group\\_of\\_77\\_and\\_China\\_ver.1\\_26\\_Aug\\_PM.pdf](https://www.unoosa.org/documents/pdf/copuos/2021/statements/item_7_Group_of_77_and_China_ver.1_26_Aug_PM.pdf)

<sup>23</sup> <https://www.nasa.gov/specials/artemis-accords/img/Artemis-Accords-signed-13Oct2020.pdf>

<sup>24</sup><https://eurasiantimes.com/to-counter-nasas-100-billion-artemis-program-china-advances-its-low-cost-lunar-base-mission-by-eight-years/>

### **3.5. Guiding Questions**

- Should states be held accountable for the actions of corporations in space and on celestial bodies, as currently the case according to international law?
- Should a corporation, just like state actors, have the right to explore and use space?
- With national appropriation being prohibited by international space law, should private actors have the right to hold property on- or claim celestial bodies for themselves? If yes, what should the process of acquiring land on these bodies look like?
- Should private actors be allowed to establish a corporation in space or on a celestial body, outside the jurisdiction of any nation on earth?

### **3.6. Further Reading**

Delegates are encouraged to get an overview over relevant economic policies and regulations in place in their respective countries. Doing so will help evaluate how and to which extend their respective country would be willing to intervene in the economy with regard to private spaceflight companies.

## **4. Topic B: “Ensuring Continuous Peaceful Use of Outer Space”**

### **4.1. Introduction**

As shown in the introduction of the most important treaties and guidelines regarding outer space, the main idea and purpose of those legislations is to keep outer space a peaceful zone, in which research is conducted to benefit humankind as a whole. Projects as the International Space Station (ISS) have made hope that peaceful international cooperation is possible. However, recent developments have shed a darker light on that hope. Russia has admittedly tested anti-satellite missiles.<sup>25</sup> The resulting debris caused the ISS to take precautions as they were crossing orbits.<sup>26</sup> A collision might have been fatal for the astronauts on board. These tests however are still in accordance to current international law as Russia claims to have tested defence systems which is not explicitly prohibited. This shows that the current legislation has many loopholes that need to be closed to ensure the safety of civilians in space.

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<sup>25</sup> Andres E. Kramer, “Russia Acknowledges Antisatellite Missile Test That Created a Mess in Space”, The New York Times, 16.11.2021, retrieved from: <https://www.nytimes.com/2021/11/16/world/europe/russia-antisatellite-missile-test.html>

<sup>26</sup> Shannon Bugos, “Russian ASAT Test Creates Massive Debris”, Arms Control Today, December 2021, retrieved from: <https://www.armscontrol.org/act/2021-12/news/russian-asat-test-creates-massive-debris>

## 4.2. Current Situation

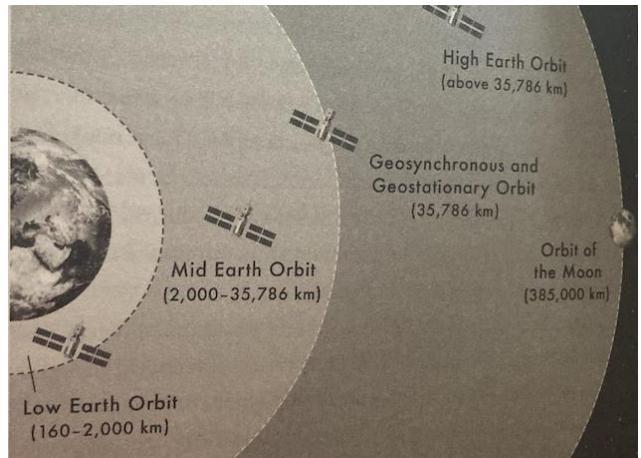


Figure 1: Earth Orbits, Source: Tim Marshall (2021)

International Law allows states to exercise sovereignty in the airspace above their territory. However, it is not clearly defined, where the country's sovereignty stops. It is widely accepted, that everything from the low earth orbit on is common ground. Still this opens the possibility of conflict regarding the placement of satellites in near ranging orbits, as closer to earth orbits might be able to control who is passing into further ranging orbits. Currently 16% of satellites in space are operated by governments against 13% for military use.<sup>27</sup> Over half of the satellite are used for commercial uses. It is expected for the number of satellites to grow rapidly from 6,000 satellites currently in space to 15,000 in space by the year 2028. In theory, space is common ground, as are the oceans, so no country is prohibited by law to launch a satellite. In reality the imbalance is evident. According to Wood<sup>28</sup> 20% of all satellites are operated by the United States of America, followed by China and Russia. This arises the question, how the "benefit all"-principle can be upheld when it comes to the use and launch of satellites. When speaking of satellites, one should not forget the retired satellites in space, that are still orbiting our planet. It is hard to assign responsibilities for the recycling of the resources that are left in our orbits. In the Moon Treaty the idea was brought up of starting to register projects to keep an overview and be able to resolve potential conflicts arising around space related projects. History has shown that countries are not willing to agree to that kind of treaty. However, the United Nations currently maintain a register on all objects launched into space and claim that 88% of all objects are registered with the Secretary General.<sup>29</sup>

In the context of the Moon Treaty, it was already mentioned, that any research facility installed on the moon would be protected. This could easily be misused as a territorial claim on the moon, which goes against the ideas outlined in the treaty. Also, there is no international legislation keeping up with the technological progress in the field of space exploration and the demand.

<sup>27</sup> Therese Wood, "Visualizing All of Earth's Satellites: Who Owns Our Orbit?", Visual Capitalist, 20.10.2020, retrieved from: <https://www.visualcapitalist.com/visualizing-all-of-earths-satellites/>

<sup>28</sup> Ibid.

<sup>29</sup> UNOOSA, "United Nations Register of Objects Launched into Outer Space", retrieved 09.12.2021 from <https://www.unoosa.org/oosa/en/spaceobjectregister/index.html>

With resources like rare metals becoming more demanded but scarce on earth, many countries and companies look towards space for possibilities of extracting further resources. This process is called “asteroid mining” or “space mining” and has only been theoretical for now. With technological possibilities advancing, there might be a positive likelihood of humankind being able to extract resources from meteors. The main actors pushing this field are private actors that are seeking to make profit with their exploration and resource depletion.<sup>30</sup> It is questionable if this method is in accordance with existing space treaties as those have imposed the idea of any resources extracted to benefit all. If companies from the most space-active countries deplete the resources it might steer conflicts, especially with countries that supply these resources now.

With the activities of Russia, that might motivate other countries to follow it is important to renew the treaties and to define more clearly what “peaceful use” of outer space is. The current definition does not clearly rule out, whether “defence systems” can be placed on for example the moon if it would be necessary to maintain peace. An option would be to rule out weaponry targeted at other human-made objects and keep the possibility open to defend earth if it would ever come to an encounter with another intelligent species.

### **4.3. Bloc Positions**

The main actors to be considered in this topic are countries, divided in space faring and non-space faring countries, private actors, and research institutions.

#### Member States

There are different ways to classify the member states interests. First, we have member states who have or have not ratified certain treaties for different reasons. This should be considered, when thinking of new legislations to pass. Second, we can distinguish spacefaring nations with non-spacefaring nations. Not every country is spacefaring by themselves but might be part of a bigger spacefaring initiative, as many European countries with the European Space Agency.

In addition to spacefaring consorts, there are also collaborations regarding space exploration that should be looked at. One example is the Artemis Accord, launched by the United States, that invited many countries to participate. Currently the Artemis Accord counts eleven signatories. Its main goal is to return humans to the moon by the year of 2024.<sup>31</sup> The accord builds on principles from the Outer Space Treaty and demonstrates, that countries are willing to find solutions and agreements, but outside of UN-structures. Another example is a joint initiative by China and Russia to build an International Lunar Station.

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<sup>30</sup> Asteroid Mining Corporation, “Introduction”, last retrieved 09.12.2021 from <https://asteroidminingcorporation.co.uk/intro>

<sup>31</sup> Rajeswari Pillai Rajagopalan, “The Artemis Accords and Global Lunar Governance”, 07.06.2021, The Diplomat, retrieved from <https://thediplomat.com/2021/06/the-artemis-accords-and-global-lunar-governance/>

### Private Actors

Currently, private actors are no subjects to treaties or resolutions issued by the United Nations concerning outer space. However, many corporations have openly voiced their interests in exploring space and depleting space resources. As space exploration is very costly, these corporations seek to find a way to make profit with it.

In principle, the home country of the corporation is legally responsible for the company, but in today's globalized structures it is often hard to identify the home country or rather easy for the corporation itself to find a home country that is willing to accommodate for their specific needs. Since companies will not be present in the committee they are not able to speak for themselves, but delegates should be aware of any private actors present in their country.

### (Scientific) Research

Over 45 years after the famous space handshake that has shown that peaceful coexistence in space was possible<sup>32</sup>, the incident with the anti-satellite-missile launch of Russia has shown that scientific researches are also stakeholders when it comes to the question of the peaceful use of outer space. Preserving international collaboration in research has been one of the main concerns of international law, but it might be endangered or at least rivalled by individual states' efforts in space exploration. It has not only become a question of what is researched in outer space, but also how to ensure the safety and neutrality of international space facilities like the ISS.

## **4.4. Guiding Questions**

- How can COPUOS ensure space does not become a stage for military demonstrations?
- How can COPUOS strengthen the idea of "benefiting all" considering resources like room, supposed minerals, ...?
- How can COPUOS ensure and protect international cooperation in research?
- How can COPUOS incentivize the ratification of existing documents?
- What could be an appropriate modern definition of peaceful use?

## **4.5. Further Reading**

Delegates are recommended to familiarize themselves with the Treaties introduced in Chapter 2.4 (they are not very long).

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<sup>32</sup> NASA, "45 Years Ago: Historic Handshake in Space", last retrieve 09.12.21 from <https://www.nasa.gov/feature/45-years-ago-historic-handshake-in-space>