OMUN V

United Nations Committee on the Peaceful Uses of Outer Space

Chair Letter

Delegates,

Welcome to COPUOS -- the UN's official body for discussing space-related issues! We are very excited for the two days of fruitful discussion and debate that are ahead.

As chairs that once were in your shoes as delegates, we realize that the Chair Letter is often the most 'overlooked' part of the background guide, so we'll keep it brief. The international community, since the official establishment of COPUOS as part of UN resolution 1472 in 1959, has been very slow to enact substantive policies and regulatory frameworks in Outer Space. This is especially concerning when entering a decade in which there are many contentious issues requiring effective policy solutions from the international community.

The committee faces two pertinent issues in this session.

First, global temperatures are rising at an exponential rate and the effects are becoming more acute on individual communities. COPUOS must address how satellite data can be utilized to inform climate policy on Earth, and how to mitigate the increasing space debris. If we decide that humanity must seek another planet, then by which laws and regulations should private companies like Elon Musk's SpaceX and Jeff Besos' Blue Origin abide in order to eliminate risks for passengers? Before the committee can tackle those issues, there must be consensus on much more basic issues. Namely, how high up in the sky does outer space officially begin? See the Karman line to start.

Second, the very nature of peace in space is uncontrolled. Can a country "own" part of outer space? What are the consequences of abuse of power in space? Do human rights extend to space? How can one ensure that satellites are not used for intelligence/spying purposes? How can this committee prevent a nuclear arms race in space? These questions should be addressed by the committee in order to create an all-encompassing framework for the international community.

A few tips:

- Read the background guide and think critically about the further questions from your country's standpoint
- Research COPUOS and understand what is in the purview of the committee
- Look at the Treaties and Agreements already established under COPUOS -- you don't want to reinvent the wheel if you don't have to!

Finally, please email your position papers to copuos@omun.ca.

Billy Shi — Head Chair
A.J. Shulman — Vice Chair

Topic 1:

Climate Change

A Brief Overview

Climate change is the defining issue of this generation, and the manner in which world leaders develop solutions to deal with the effects of climate change will determine the future of the human race in its entirety. Unfortunately, lack of accountability among nations in meeting their emissions targets for 2030 is a major cause of this increasing danger. I

Scientists across the world are trying to use space-technology to gather evidence and data on climate change. This can help them eventually find solutions to climate change's effects. Also, space gathered information can play a key role in helping communities adapt and overcome the effects of climate change.[1] Many international and national organizations have been created to the Plan of Implementation of the World Summit on Sustainable Development (Johannesburg Plan of Implementation) using space data-collection and technology.[2]

The United Nations/Austria/European Space Agency Symposium on Space Tools and Solutions for Monitoring the Atmosphere in Support of Sustainable Development took place in September 2007, in Graz, Austria, and investigated the utilization of space-technologies for energy generation and air pollution detecting.[3]

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[1]"Space And Climate Change". *Unoosa.Org*, 2020, https://www.unoosa.org/oosa/en/ourwork/topics/space-and-climate-change.html. Accessed 20 Jan 2020.

[2]"Report Of The World Summit On Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002". 2002, p. ., https://digitallibrary.un.org/record/478154?ln=en. Accessed 20 Jan 2020.

[3] "2007 UN/Austria/ESA Symposium On Space Applications To Support The Plan Of Implementation Of The World Summit On Sustainable Development ". Unoosa.Org, 2020, https://www.unoosa.org/oosa/en/ourwork/psa/schedule/2007/symposium_austria_space_applications_wssd.html. Accessed 20 Jan 2020.

In September of 2016, another symposium was held, this time focusing on using space-technologies to achieve the Sustainable Development Goals (SDGs). Particularly Sustainable Development Goal number 13 was focused on, which is “the need to take urgent action to combat climate change and its impacts.'' Many topics surrounding the SDGs were discussed, primarily how developing nations can use space-technologies to understand potential vulnerabilities and prevent massive loss.[4]

The Austrian symposium specifically focused on the use of satellites for helping reduce the effects of climate change.[5] These satellites would help track greenhouse gas emissions, deforestation, and ocean water levels. The German Aerospace Center (DLR) held a conference in April of 2016 aiming to further the utilization of satellites and the ISS for tracking the metrics mentioned above.

UNOOSA helped lead the conference aiming to help expedite the use of space-technology to meet the requirements for the Sustainable Development Goals. The conference gathered other experts in the field of space technologies and allowed for the establishment of programs that use satellites to track current methods of adapting to climate change. Unfortunately, most space-technologies are extremely expensive and developing nations are unable to afford it. This leaves it up to the few nations that have these technologies to share this data for the common good.[6]

Satellite technologies can also be developed to track natural disasters, and this is especially helpful to developing nations with little mechanism for predicting when a disaster

[4]"United Nations/Austria Symposium On “Integrated Space Technology Applications For Climate Change”". *Unoosa.Org*, 2020, https://www.unoosa.org/oosa/en/ourwork/psa/schedule/2016/symposium_austria_climatechange.html. Accessed 20 Jan 2020.

[5]Ibid. 6

[6]"DLR Conference On Climate Change 2016 - Challenges For Atmospheric Reserach". *Unoosa.Org*, 2020, https://www.unoosa.org/oosa/en/ourwork/psa/emnrm/activities.html. Accessed 20 Jan 2020.

will strike and preparing adequately for it. This will be helpful for rescue workers to target areas most affected by the disaster, as was done in Haiti in 2010.[7]

As aforementioned, only developed nations have access to this natural disaster tracking technology, and developing nations such as Haiti are still too economically weak to begin development of these satellites. This is why it is essential for a framework for sharing information.

In 2015, the ESA, held a symposium in Paris which allowed for the discussion between governments and organizations to work together on tackling climate change and its effects. The conference was held as a method for discussion between nations trying to maintain warming below 2 degrees Celsius. Countries agreed that using satellites to monitor climate change and progress on climate change is vital.[8]

A new UNEP study has shown that few countries are following through with the goals set in 2015.[9] Most developed nations are off track to achieving their goals; even those who are have been criticized for setting their goals too low. China is the exception, with emissions set to be reduced by 2030 while maintaining steady economic growth.[10]

Governments around the world must begin to understand the grave dangers associated with climate change and the major effects that it can have on the earth. Every nation regardless of its location will be impacted by climate change and world leaders must

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[7] Rogers, Simon. "How Satellites Help Analyse The Haiti Earthquake". *The Guardian*, 2010, https://www.theguardian.com/news/datablog/2010/jan/15/haiti-earthquake-satellite-aid. Accessed 20 Jan 2020.

[8] *Unfccc.Int*, 2020, https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement. Accessed 20 Jan 2020.

[9] *Wedocs.Unep.Org*, 2020, https://wedocs.unep.org/bitstream/handle/20.500.11822/30797/EGR2019.pdf. Accessed 20 Jan 2020.

[10] Vaughan, Adam. "China Is On Track To Meet Its Climate Change Goals Nine Years Early". *New Scientist*, 2020, https://www.newscientist.com/article/2211366-china-is-on-track-to-meet-its-climate-change-goals-nine-years-early/. Accessed 20 Jan 2020.

act quickly before warming reaches an irreversible level. Using space-technologies such as satellites to achieve the goal of reducing climate change.

Questions to Consider

1. How can a framework be set up that facilitates the sharing of information regarding data collected by satellites on natural disaster impact?
2. What would that framework look like?
3. How can countries be incentivized better to achieve their goals set in the Paris Agreement?
4. What new space-technologies can be used to combat climate change?
5. What individual effects of climate change can be tracked?

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2. Satellites Tracking Natural Disasters - https://www.theguardian.com/news/datablog/2010/jan/15/haiti-earthquake-satellite-aid
3. The Paris Agreement - https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement
4. DLR Conference on Climate Change - https://www.unoosa.org/oosa/en/ourwork/psa/emnrm/activities.html
5. Space in Climate Change - https://www.esa.int/Applications/Observing_the_Earth/Space_for_our_climate/Space_in_climate_change

Topic 2:

Peace in Outer Space

A Brief Overview

Ever since the Space Race in the 1960s, many nations and individuals have been concerned about how space will be used as a new frontier of warfare. States with space-travel capabilities have a clear advantage in this new age where being able to move objects to and through space can pose a major threat to any opposing nation globally.

Also, the legality surrounding basic human rights in space is very complex in the present day. As space travel grows to the private sector and other organizations and agencies loosely, if at all tied to national governments, the general health of space goers is an issue rising to the forefront of UN COPUOS agenda. Further, the legalities concerning launching authorities' responsibilities when astronauts, and eventually regular citizens, are returning to Earth is an important issue to COPUOS.

International space law outlines that the primary use of outer space should be for exploratory and peaceful purposes, with multiple treaties outlining limitations of outer space usage in regards to maintaining peace.[11] Unfortunately, there have been a number of violations of this international law.

Recently, multiple nations have continued military expansion within space by a number of nations. A major part of the problem is regarding what weapons are banned from outer space (apart from nuclear weapons which are clearly banned)[12] Many nations militarize space and use the defense that their actions were done defensively, and for the reason of maintaining peace. This is allowed because defending your state is an act of self-protection,

[11]"Outer Space Treaty". *Unoosa.Org*, 2020, https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/outerspacetreaty.html. Accessed 20 Jan 2020.
[12]Ibid. 14

and is therefore peaceful.[13] This reason should be questioned, but unfortunately has not been yet by this committee.

Military satellites have in particular been used in questionable ways, but states continue to use the reasoning that the satellites are entirely for defensive purposes.[14]While most satellites are for communication and taking images of earth[15], they can often be used for surveillance as well.[16]This raises concern regarding nations spying on other nations' citizens. This interstate surveillance often occurs during conflict, and has the potential risk of severely escalating the situation. India, for example, is allegedly using military satellites to surveil disputed territory, and this might increase already hostile relations with Pakistan.[17] [18]

The potential usage of space technology, satellite technology, and the deployment of weapons into space all raise serious international concerns. Even if the usage of weapons of mass destruction are not used, the use of outer space can still be used for military purposes, and the international community should take it upon itself to more strictly define many of its terminology in International Space law. It could be seen as grossly inhumane for the international community to allow space technology to be utilized in a manner that increases

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[13]*Politico.Com, 2020, https://www.politico.com/f/?id=0000016d-0513-d6ab-a97f-4f93520b0001. Accessed 20 Jan 2020.*

[14]Ibid. 15

[15]"What Can Satellites Do?". *Wonderopolis.Org*, 2019, https://www.wonderopolis.org/wonder/what-can-satellites-do. Accessed 20 Jan 2020.

[16]"New Low-Cost Spy Satellites Are Getting Scarily Powerful". *Fast Company*, 2017, https://www.fastcompany.com/40510108/new-low-cost-spy-satellites-are-getting-scarily-powerful. Accessed 20 Jan 2020.

[17]News, India. "DRDO: Isro To Launch 5 Military Satellites This Year To Boost 'Strategic Assets In Space' | India News - Times Of India". *The Times Of India*, 2020, https://timesofindia.indiatimes.com/india/isro-to-launch-5-military-satellites-this-year-to-boost-strategic-assets-in-space/articleshow/68713168.cms. Accessed 20 Jan 2020.

[18]Hussain, Mian Zahid, and Raja Qaiser Ahmed. "Space Programs Of India And Pakistan: Military And Strategic Installations In Outer Space And Precarious Regional Strategic Stability". *Space Policy*, vol 47, 2019, pp. 63-75. *Elsevier BV*, doi:10.1016/j.spacepol.2018.06.003. Accessed 20 Jan 2020.

interstate conflict and can as such cause great distress to human beings caught within heightened disputes.

The use of weapons in space poses a major threat to international security and must be an issue that is addressed; International Space law must be appended to or revised. This also is important because of new technology that has been developed regarding space weaponry. These include ICBM and orbital weapons.

On January 27th, 1967, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies Possible Solutions was signed.[19] This treaty is also known by its more common name, the Outer Space Treaty. The treaty has two large focuses, the first is on establishing outer space as an international area in which all nations have access, and the second is an effort at maintaining peace on earth and in space by regulating actions in space. This includes the banning of nuclear weapons in space, restricting the use of celestial bodies for military or other non-peaceful purposes, and the reaffirment of space as an area when all nations can explore.[20] Other than the prohibition of nuclear weapons in space, the Outer Space Treaty does not ban the weaponization of space or military actions within space. It's main concern is maintaining peace within outer space and it's outdated nature fails to address more current issues such as mining of celestial bodies, which was a subject of controversy after a number of countries legalized space mining.[21]

Human rights in space is also a major issue that should be discussed. While the current system of borders may work on the earth, borders are much harder to establish and maintain in space. This is especially important now with space-travel technology significantly improving. Private space companies such as SpaceX and Blue Origin are also beginning to work on sending people into space and are working with multiple governments to do so. This causes concerns regarding laws and regulations in space and which entities control and govern which areas of space. Currently there is no adequate mechanism for punishing crime[22] in outer space and if space continues to be an international area, which nations' laws will be enforced and how will they be enforced?

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[19]Ibid. 14

[20]"Outer Space Treaty | 1967". *Encyclopedia Britannica*, 2020, https://www.britannica.com/event/Outer-Space-Treaty. Accessed 20 Jan 2020.

[21]Ibid. 23

[22]"What Happens When You Commit A Crime In Outer Space?". *Global News*, 2020, https://globalnews.ca/news/5835064/space-crime-nasa-investigation/. Accessed 20 Jan 2020.

Questions to Consider

1. What is the role of national sovereignty in regulating the use of space?
2. What are the implications of migration or travel into outer space?
3. Whose laws must be followed?
4. How would we regulate these laws?
5. How can we regulate human rights in space?
6. What regulations must be put on weaponizing space?
7. How can we ensure countries continue to follow the Outer Space Treaty?

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2. Outer Space Treaty - https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/outerspacetreaty.html
3. Outer Space Treaty Britannica - https://www.britannica.com/event/Outer-Space-Treaty
4. New Low-Cost Spy Satellites - https://www.fastcompany.com/40510108/new-low-cost-spy-satellites-are-getting-scarily-powerful
5. Militarization of Space - https://www.space.com/42298-space-weaponized-already-military-history.html

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