COPUOS: Space and Climate Change and Long Term Sustainability

Greetings delegates! My name is Joshua Vila and I will be your head chair for the MVHS MUN 2018 Conference. I am an exuberant junior and this is my third amazing year of MUN. I am in NHS, CSF, Chamber Choir, and the esteemed IB program. I love music, basketball, and hanging out with friends. My favorite foods include, but are not limited to, chicken wings, calamari, sushi, and oatmeal raisin cookies. I hope to make this committee convivial and enjoyable for all of us and I look forward to being the greatest head chair you will ever have in your life ever.

Hey delegates! My name is Gabbi Hoopes and I'm your vice chair for this year's conference. I am a sophomore this year and this is my second year of MUN. I am on the water polo team, in CSF, and am part of several clubs here at Mission. See you at the conference!

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.

Space and Climate Change

I. Background:

Climate change is the rise in the Earth's average temperature by the emission of greenhouse gases along with other natural factors. Global warming has many severe effects on life and habitats across the globe. As the issue of climate change becomes more and more urgent, it is imperative that we work to preserve our planet. Part of this effort includes space-based technologies to monitor global warming. This type of research conducted in outer space is crucial

for assessing the weaknesses of earth and helps provide insight into possible solutions for mitigation. It also plays a key role in observing the effectiveness of implemented resolutions as well as predicting future climate trends. Large programs, such as NASA, along with private satellite companies conduct such research and provide committees like COPUOS with important data for improvement. Today, some of the largest contributors to global warming include United States of America, India, China, and Russia. Their big businesses and industrialization make them the countries that have the highest emission of greenhouse gases. Studying outer space will help us develop a better understanding of the effects of "space weather" on the carbon dioxide levels on earth.

II. United Nations Involvement:

Combating climate change is a priority of the United Nations and is one of their 17 Sustainable Development Goals. Established in 1962 by the General Assembly, the United Nations Office for Outer Space Affairs (UNOOSA) promotes the "peaceful use and exploration of space." Their shared mission with COPUOS has a strong emphasis on peace and oppose the militarization of outer space. They recognize how critical activities in outer space are and how they also impact communication infrastructures, medicine, and disaster management. As space technology develops and more countries move to space research, the UNOOSA and COPUOS work to ensure the rationality, safety, and peacefulness of their activities.

III. Possible Solutions:

The main "solution" is to encourage outer space and continue to cut down on carbon dioxide emissions by large businesses. Committees have been beneficial in producing reports on the uses of space by states and data collection of environmental transformations such as sea levels,

temperature, greenhouse gases, glaciers, and many other factors. The collaboration of many committees and groups dedicated to space exploration and fighting climate change, such as United Nations Framework Convention on Climate Change (UNFCCC), are essential for the monitoring of mitigation efforts and implementing new guidelines for space practices.

IV. Guiding Questions:

1. How can fairness be ensured in terms of the states' shared uses of outer space?
2. What are some of the challenges that climate change poses?
3. How else can space be utilized to slow climate change?
4. To what extent is climate change an issue today and for the future?

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Long Term Sustainability

I. Background

In the 2007 UN COPUOS report, the issue of the long term sustainability of projects in space was first addressed. It was defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs", and in terms of space exploration and use, it means preserving the space environment in a way that allows present missions to continue while not jeopardizing future missions. In the last sixty years of space exploration, over 100 mission have somehow affected the long term climate of both outer space and within earth's atmosphere. COPUOS is now faced with the prospect of allowing for space exploration while also preserving the outer space environment for future generations.

II. United Nations Involvement

Since the aforementioned report which brought the issue to light, a Working Group, a subset dedicated to outlining viable solutions, was assembled in 2010. As these solutions are developed, a comprehensive compendium is being planned to be presented to the General Assembly in 2018. UNOOSA launched a campaign in 2012 to raise awareness among governments in order to find solutions to the issue. UN Women recently held a summit to encourage female employees at large firms like NASA to contribute. In numerous statements, COPUOS has stated that both the interests of governments, private enterprises, and international organizations, both in terms of safety and for exploration. If space enterprises and governments fail to protect the conditions of outer space, the safety of those working in outer space as well as possibly the wellbeing of inhabitants of earth could be compromised.

III. Possible Solutions

The issue of protecting the environment of outer space for both present and future governmental and private organizations is one that requires multiple solutions; some of the officially drafted solutions by the official Working Group include creating regulations for space reentry, restrictions on the length and magnitude of space expeditions and the debris they create, and a push for greater accommodation of space weather by enterprises wishing to pursue missions.

IV. Guiding Questions

1. What is your country's connection with the space missions today and in the near future?
2. What possible solutions would make the greatest impact with the least amount of effort on the part of the international community?
3. How could solutions vary based between governments, private corporations, and international enterprises?

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