



CIMUN 2017

The Cathedral International Model United Nations,
2017



COPUOS

Committee on Peaceful Uses of Outer Space

Agenda A: Formation of new space laws on the colonisation of celestial bodies.

Agenda B: Discussing the conservation of space environment with special emphasis on the convention on international Liability for damage caused by space objects.

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Message from the Secretary General

Dear Delegates,

It is with immense pleasure that I welcome you to the 6th annual session of the Cathedral International Model United Nations. The Cathedral International Model United Nations is a CVSL student led event to be held from the 22nd of September to the 24th of the same month. This year in its 6th session CIMUN will be crossing boundaries it has never crossed before, and you, the delegates, shall be the ones to witness and enjoy a newer, grander CIMUN.

Four years ago, I was introduced to the concept of a simulated UN conference for students to engage in worldly affairs and rectify issues which challenge the existence of world peace. The UN, although it may be deemed by many as a failed organisation, has since its inception been an eminent peace keeper in the international scene as well as in many cases, the local scene. The UN plays an important role in our lives, whether we see it or not- ergo MUNs were started for students like you and me, to recognise the importance of the organisation and to understand the functioning of the same.

I proudly owe my enthusiasm about MUNs to my first MUN- which happens to be the second session of CIMUN. Since then My MUN career has soared through new heights and hasn't looked back ever since. It is a pleasure to head the same MUN which had launched me into the world of public speaking, internationalism and diplomacy, and I assure that this year's CIMUN will exceed the already high standards set by previous sessions of CIMUN.

I am glad to announce that CIMUN will be host to five UN committees as well as one external body. Whether you are a space geek, arms fanatic or a person like me who loves to engage in world trade policies and crises, CIMUN is the event you should keep your calendar reserved for. On the 22nd of September prepare to take the scenic drive to Lonavala, where for three days you would be stepping into the shoes of country leaders to "take the initiative and make the difference" and at night you would be partying away at the delegate ball hoping to create strong relations with other country representatives to aid you in moving forward your policies in committee sessions.

This will be my fifth CIMUN, and I could not be more honoured to serve on the secretariat with some of the most talented, hardworking and creative people I know. I hope to see an exciting, stimulating and productive conference this September.

I look forward to seeing you at CIMUN this fall!

Suraj Vijay Harjani,

Secretary General,

Cathedral International Model United Nations 2017.

Message from the Director of COPUOS

“The Sky calls to us, if we do not destroy ourselves, we will one day venture to the stars.” - Carl Sagan

With rapid advancements in space technology and the endless boundaries of the universe there is no telling what we can achieve in the future. There are billions of possibilities ranging from simply protecting our planet to actually going out and colonising others. Space research is something that could be the gift that the human race is waiting for. The gift that could bring an end to thousands of problems on Earth, but at what cost? I think this is what the famous astronomer Carl Sagan meant when he said “if we do not destroy ourselves”. Although we might end many problems here on Earth, we will undoubtedly create new ones in outer space which may end up hurting more in the end. This delegates, is where this committee finds its place. Welcome to the Committee On Peaceful Uses of Outer Space. With its motives being to reduce all possible conflicts related to space and to use outer space collaboratively in order to help the human race move forward.

My name is Ashwath Narekuli, and I am a 12th grade student at the Cathedral Vidya School Lonavala. From a very young age I have been very passionate about technology and space travel, I have read books, watched documentaries and played games about space and not once has it disappointed me. Therefore, I will expect nothing less than intelligent, exciting and fervent debates from you delegates. Along with some practical scientific solutions to the Agendas.

I hope that all of you love space as much as I do, and are looking forward to an exciting three days of committee in which we will tackle all the issues that have already occurred or might be created in the future during mankind’s step into the unknown.

About COPUOS

In 1957, the first man-made satellite was launched into space. Ever since then space exploration and technology have advanced rapidly. In 1959, The United Nations Committee On Peaceful Uses of Outer Space (COPUOS) was set up by the General Assembly to tackle the difficulties and issues of advancement in space technology.

COPUOS was set up in order to encourage space research programmes and cooperation towards conducting peaceful activities in outer space that would benefit all of humanity.

The committee was at the centre of arguments during the formation of the five treaties of outer space which have upheld peace in outer space and minimized the conflicts between countries. However due to the rapid advancements in space technology each year, the agendas of the committee are constantly changing to keep up with the new technology as well as maximize the benefits from the research.

AGENDA A: FORMATION OF NEW SPACE LAWS ON THE COLONISATION OF CELESTIAL BODIES

Space colonisation started out as just a Sci-fi myth. However, advancements in space technologies have led to a point where now space settlements are not impossible anymore. Movies like the “Martian” and “Interstellar” have shown an accurate scientific representation of what can be expected from extra-terrestrial colonization in the coming decades, and with the current rate of advancements in technology, space colonization can see many benefits for the human race.

However, space colonisation won't just have its benefits, but also its downfalls. One of the major downfalls will be the conflicts it creates between different countries. Currently, there are no set laws that will apply to our future space colonies, ‘The Liability Convention’ is currently used for any objects in space and will probably be used in the future for our colonies too. Using this convention means that there won't be only one country, government organisation or even private body that will be enforcing its jurisdiction over the colonies as the convention states that the owner of the object around which the dispute has begun will be entitled to jurisdiction. But if there are objects or colonies that are comprised of many countries, like the International Space Station, then it will create disputes among the countries for authority. A solution to this problem is creating a Specialized Code of Conduct to cover basic laws of space exploration

To create these laws it is important to first understand the reasons and goals for outer space colonization and the different methods that may or may not be used during the colonisations. Based on the 3 factors it will be easy to deduce laws that can benefit each country or private body that is involved in extra-terrestrial colonisation.

Reasons and goals

Survival of the human race- this is very obvious as our current planet Earth has suffered severe damage from human activity and if the trend continues then earth could become inhabitable for humans.

Resources in space- we know for a fact that the universe has an abundance of resources, enough to supply a human population billions of times greater than our current one. Although some of these resources are inaccessible, there are many sources very close to earth, like the moon which contains oxides of metals such as iron and aluminium. Soon,

harvesting these metals from the moon will be economically feasible due to advancement in technology.

There are also many other reasons like dealing with overpopulation, space commercialization and saving the Earth's environment, however most of these just further support the two reasons above like survival of race and overpopulation, or harvesting space resources and saving Earth's environment.

Overall, the main goals for outer space colonization would be to gain something that cannot already be acquired easily on earth. Therefore, going after resources like minerals and energy sources as well as to gain land in order for human settlement will be the main goals as these are the things that we are lacking on Earth currently.

Methods

For a colony to survive in outer space it has to have all the basic necessities required by human life and even more due to the difference in habitats on celestial bodies:

- **Materials** – Some basic materials can usually be harvested from the celestial bodies itself. For example different metals on the moon. However these aren't the necessities. Resources like oxygen, water and food will have to be transported from the Earth until a sustainable source of these resources can be established, for example a farm created on a small piece of terraformed land to grow food.
- **Energy** - Energy is not a big issue as long as Earth can provide a few materials at the beginning in order to create solar panels. This is because outside of the Earth's atmosphere without things like clouds, dust and day/night cycles, solar energy on its own can be more than enough to sustain a small population of humans.
- **Life Support** – Life support is one the most important things as it is necessary to recycle or send more nutrients for the human population to survive. Nuclear submarines are the foundation of using life support technology and allow humans to stay in the submarine for months without having to surface. When this technology is improved, it will form the foundation of space settlements with help of biosphere technology.

The above mentioned factors are very important when it comes to formation of space laws. As the environment of space is different, the way humans will have to live there will also be different. And if laws vary from country to country due to small differences in lifestyle, it will be important to have a certain group of set laws that will only work on space colonies in order to maintain stability and avoid conflicts that could hinder the progress or even jeopardize the lives of people.

AGENDA B: Discussing the conservation of space environment with special emphasis on the Convention on International Liability for damage caused by space objects.

The Convention on International Liability for damage cause by space objects (Liability convention):

The liability convention was considered and negotiated by the GA in 1971 and passed in 1972 and the Convention simply states that the launching state will be liable for damage caused by its object whether it be on the earth's surface or out in space. The convention has its own procedures to settle the claims for damages caused. For example- for joint launches both states will be held equally responsible and the claims can only be between the states that are involved in the launches or damage.

The Earth's orbit contains over 170 million objects that range as small as 1cm wide to a few metres wide, it is estimated that these objects weigh approximately 1,900 tons with 98% of the objects being man-made objects launched into space. And although this might not seem like a problem to many, it is a huge threat to humans in many ways.

- Most of these objects re-enter the atmosphere and although some burn away before reaching the surface some parts are big enough to make it to the surface and cause damage to buildings and roads. The *Columbia disaster of 2003* is a prominent example of these events.
- This space debris can cause damage to objects in space that are presently working. NASA has said that even collisions with extremely small objects that only cause paint flecks lead to the shutting down of shuttles. This can be very economically damaging to countries.
- Damaging satellites – This debris could crash into and damage some satellites, this would not only affect the scientific community, but also the common people as things like GPS, television and weather forecasts all work due to satellites.
- The Kessler syndrome – A chain reaction of collisions between the satellites could also lead to creating even more debris and damaging a lot of our current space technology.

- Increased danger for manned missions. These debris could easily crash into one of the shuttles that have astronauts on board, which could be life-threatening. One of the first events like this to occur was the challenger's second flight where the protective paint was chipped off by the debris.

Most of these events have occurred or will occur due to space debris. One of the methods already in action is the liability convention. The liability convention makes the launching state liable for all the damage, therefore making each and every state cautious before making any launches so as not to create any unnecessary hindrances to the funds of these launching bodies. The liability convention therefore does help *reduce* space debris created in the future. However it does nothing to remove the current space debris.

There are a few methods that can be used to remove the space debris:

- **Self-removal** – This works for any “Dead” satellites that still have small amounts of fuel. That fuel can be used to bring the satellite deeper into the Earth's atmospheric drag which will reduce the amount of time that the object stays in space for. This was extremely successful with the French spot-1 satellite as it decreased the re-entry time from 200 years to 15 years.
- **External removal** – This is when the objects have to be removed by astronauts or other space objects. There were some successful tries, the most prominent ones being laser brooms, where a ground based laser would slow down objects enough that they re-enter the atmosphere. Also, space junk collectors that rely on tethers, nets and harpoons were and will be used as there is a plan by the European space agency to do just this in 2021.

Although COPUOS has released voluntary guidelines in 2007, they are only guidelines and therefore do not have to be followed by the Launching states. Also, the methods above to remove space debris is not something each and every state will or even can follow due to economic restrictions. The Liability convention, again, does help reduce space debris as it creates more awareness and caution from the launching states but clearly it is not enough as the number of space debris since the release of the convention in 1971 has not decreased. There is no treaty currently to reduce the space debris.

Contact information

You are required to submit your position papers to: anarekuli011@gmail.com

Research Guidance

Delegates are advised to not limit their research to study guides. The purpose of the study guide is to simply introduce the agendas to the delegates and provide a background to the agendas. Here are some links that will help you get started with your research.

Agenda A:

https://en.wikipedia.org/wiki/Space_colonization#Terrestrial_analogues_to_space_colonies

<http://www.thespacereview.com/article/2269/1>

<https://phys.org/news/2017-03-future-space-colonization-terraforming-habitats.html>

Agenda B:

<http://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/introliability-convention.html>

https://en.wikipedia.org/wiki/Space_debris

<http://www.abc.net.au/news/science/2016-12-06/space-junk-why-it-is-coming-back-to-bite-us/7884396>