



COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

Dear Delegates,

My name is Tyler Kaub and I will be serving as your director for the Committee on the Peaceful Uses of Outer Space (COPUOS). On behalf of the University of Florida Model United Nations Club, I would like to welcome you to GatorMUN IX. I am a junior at the University of Florida studying Materials Science and Engineering with a minor in Business Administration. This is my third year on GatorMUN staff and my seventh year participating in Model UN. In addition, I also have the pleasure of serving on the GatorMUN Secretariat as the Under Secretary General of Finance for this year's conference.

My focus when creating this committee was to create a body to tackle issues that have not been fully addressed by the United Nations. In this committee, I would like to see the science and engineering issues that these topics are based around discussed in parallel with the political solutions to these topics. On that note, I would like to stress that the background guide will only serve as a basis on the research that you should do for this committee and that outside knowledge is a must when discussing these issues facing the world. However, do not be worried if you struggle to find information on some of these areas because we are discussing issues that are on the cutting edge and many have not be debated substantially at the United Nations.

COPUOS will be following the standard rules of parliamentary procedure that are outlined in the GatorMUN IX Rules of Procedure, which are available on the website. For those of you that are new to Model UN don't worry if you are not very familiar with the rules. You will pick them up very quickly. In addition position papers are required for this committee. Please remember to use the guidelines for writing them, which are posted on the website. Also note that laptops will not be permitted during committee sessions. GatorMUN will be a challenging conference but if you actively participate it will be a very fun and reward experience.

If you have any questions regarding anything related to the committee or GatorMUN in general don't hesitate to contact me at gatormun@gmail.com. I look forward to meeting all of you in committee and good luck on all your last minute researching. (Not that I encourage that sort of thing ☺)

Sincerely,

Tyler Kaub
Director, Committee on the Peaceful Uses of Outer Space



Committee Background

Shortly after the launch of Sputnik in 1958 the General Assembly passed resolution 1348 which establish an ad hoc Committee on the Peaceful Uses of Outer Space. This body had eighteen members and was created to consider the activities and resources of the United Nations (UN), the specialized agencies and other international bodies relating to the peaceful uses of outer space, the international cooperation and programs in the field that could appropriately be undertaken under UN auspices, as well as the organizational arrangements to facilitate international cooperation in the field within the framework of the UN and the legal problems which might arise in programs to explore outer space. The following year the General Assembly passed Resolution 1472¹ which established the committee as a permanent body and reaffirmed its mandate.

In 1961, the UN decided with Resolution 1721 that it should become more of a focal point in the international community for space based affairs. The decision enabled COPUOS to work more closely with the Secretary-General and utilize the resources of the Secretariat. In addition, COPOUS added some new roles like maintaining contact with governmental and non-governmental organizations concerned with outer space matters, providing an exchange for information related to outer space activities, and assisting in the studying of measures for the promotion of International Corporation in outer space activities. The resolution also created a public registry of launchings maintained by the Secretary-General based on information that states supply about objects launched into orbit or beyond. Those terms of reference that the former resolutions outlined are still the terms of general guidance for the committee.

Committee Description

COPOUS has two subcommittees in addition to the main committee, which are the Legal and the Scientific and Technical. COPOUS is composed of sixty-nine² member states making it one of the largest committees in the United Nations. As of 2001, the committee ended its practice of having rotating seats so that all sixty-nine members have a permanent spot. In addition to the permanent member states of the committee, it also grants a number of inter-governmental and non-governmental organizations observer status with COPOUOS and its two sub-committees.

COPOUS and its subcommittees meet annually to discuss its agenda which is determined by questions from the General Assembly, reports submitted to them, and issues raised by member-states. The committee works on the basis of consensus and submits recommendations to the General Assembly. In addition, the United Nations Office for Outer Space Affairs implements the decisions of the committee along with the General Assembly.

¹ http://www.oosa.unvienna.org/oosa/COPUOS/cop_overview.html

² <http://www.oosa.unvienna.org/oosa/COPUOS/members.html>

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Topic 1: Addressing Long-Term Sustainability of Outer Space Activities

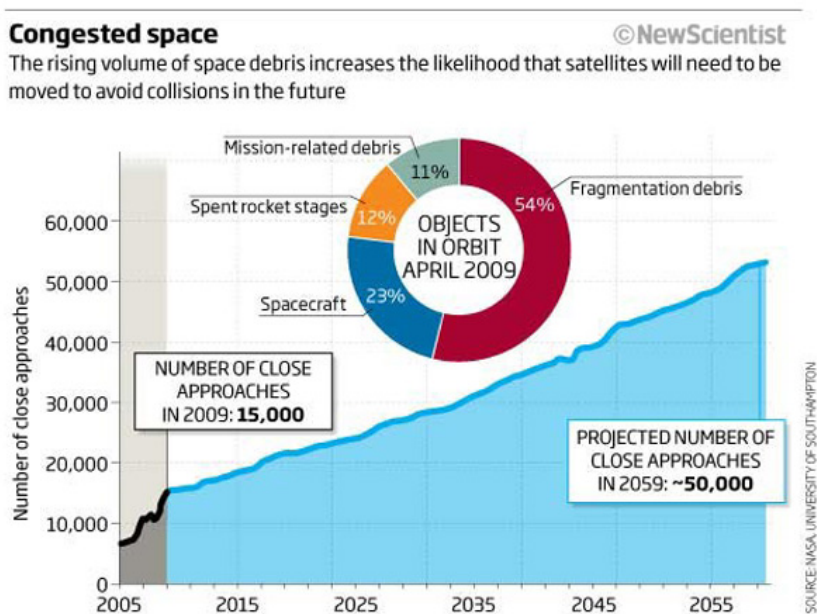
Introduction

“The future of humanity will depend on the continued applications of space technology and on the peaceful uses of outer space” Mazlan Othman, Director of the United Nations Office for Outer Space Affairs (UNOOSA).³

The continued exploration of outer space is essential for the future of mankind. However, the actions being taken now are jeopardizing the future ability of the exploration of space. The increasing number of actors engaging in space related applications is magnifying many of the problems that face human spaceflight. For the continued exploration of outer space activities, three main areas need to be addressed to increase the long term sustainability of space activities. The areas are space situational awareness, space safety, and the space environment.

Space Situational Awareness

The single most pressing issue that is facing the future of space flight is space situational awareness. This issue has steadily increased in importance as the number of objects in orbit has increased. In addition, to that trend the growth in the private space industry is expected to add a new dimension to space traffic management and control. For these increases in space flight to continue, actions need to be taken to provide a better way to track objects and prevent collisions.



Currently the only international body that has made an attempt to develop space safety standards is the International Standards Organization (ISO). The efforts made by the ISO, while

³ <http://www.unis.unvienna.org/unis/pressrels/2011/unisos409.html>

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a good start, tend to be largely ignored because they are very generic. Any long term solution would not work through the ISO because the organization was intended to create industrial standards to better facilitate international trade. Another approach that could be used to create a space situational awareness network could be modeled after the telecommunications or maritime sectors. In both cases, the regulatory systems created for those sectors helped grow their respective industries. The best possible model available is the International Civil Aviation Organization (ICAO) which regulates international civil air travel. The ICAO was created after World War 2 when states “realized that a commercial civil aviation industry could not achieve and maintain sustainable growth without an international regulatory framework to ensure that civil aircraft could take off, fly and land safely anywhere in the world.”⁴ The success of the ICAO in the airline industry provides a good start to build a system to be implemented in low earth orbit.

If a regulatory body is to be created it must focus on providing collision avoidance, data sharing and space traffic management control. These tasks currently are spread among various state based agencies and information is not required to be shared. The UN currently requires that basic information be submitted for launches to an International Registry but this registry does not contain enough data to be used for collision avoidance. The unorganized mixture of systems and the optional data sharing between nations is not going to be sustainable for the long term. With the number of near approaches ever growing, the UN needs to take an active role in developing an international body or system to reduce the risks of collisions for objects in orbit. The world cannot continue to rely on only a few nations to track all the objects in space and try and resolve any overlaps in orbit. For a private space industry to expand, the ability to orbit the earth safely and collision free must be established.

Space Safety

The space sector has been dominated by a few states for the majority of its fifty-year history, which created a system where safety standards vary from nation to nation. With the introduction of private spaceflight and the growing space tourism industry, actions should be taken to ensure more standardized safety standards are created. The current system based on vague standards and good intentions will not be sufficient in the growing competitive environment of space.

One of the most important recommendations regarding space safety was contained in a study done by the International Space Safety Foundation. The foundation found that “all new human space transportation systems should be developed to common international standards.”⁵ Adopting international standards would simplify rescue attempts along with easing development of space systems. An international approach needs to be taken to develop these standards using input from the various space agencies. The committee should especially look into developing a set of safety standards for the private space industry. Currently, private spaceflight is regulated through the nation the company is based out of which has lead to a wide variety of standards

⁴ <http://www.unidir.org/pdf/articles/pdf-art2819.pdf>

⁵ http://issfoundation.org/Reports_files/Space_safety_summary.pdf



being adopted. A more universal approach would lead to greater ability for transnational space flight ventures along with lowering development costs of space systems.

The Environment

Environmental concerns have become a mainstream issue, but those concerns are largely related to concerns on earth. However, protecting the space environment that surrounds the earth is just as important. Various objects orbit the Earth, but the most important object that needs to be controlled is the non-functional manmade objects. Currently the only action taken has been non-binding mitigation guidelines passed by the General Assembly. The guidelines are a start, but the absence of legally binding measures have delayed progress. Currently satellite and launch vehicle manufactures are not bound to employ any sort of mitigation measures in their designs. In addition, nothing in international law forbids a nation to destroy one of its own satellites and create a cloud of space debris.

Many different approaches could be taken to try and create a legal standard to be enforced. Cap and trade systems in debris produced could be a solution if an agreement that ensures that states voluntarily submit to the standards. If this agreement is reached, it should also address the area of composition for damages caused by space debris. In addition, concerning damage caused to other objects in orbit, a international legal precedent should be established for manmade space debris that fall to earth and cause damage.

Toxic materials used in the manufacture of space systems need to be addressed, as well. The failure of a launch risks the release of large amounts of toxic fuels or materials contained on a spacecraft. Stronger efforts need to be taken to reduce the risk of exposure to people living on the ground. Efforts need to be taken to develop alternatives that are less risky to human health in the event of a failure and better reliability for systems carrying toxic materials needs to be achieved.

Research Questions

1. Does your state track objects in orbit and, if so, does it have a system to share information?
2. Has your state contributed or been affected by space debris?
3. Does your state have private space companies?
4. Has your state taken efforts to mitigate space debris?
5. What legal responsibility does a party have that creates orbital debris?

Helpful Websites

1. <http://swfound.org/media/5167/spacetrafficmgmt-bw-2007.pdf>
2. <http://www.economist.com/node/16843825>
3. <http://orbitaldebris.jsc.nasa.gov/>
4. <http://www.icao.int/Pages/default.aspx>



Topic 2: Reevaluating Space Law

Introduction

Space Law is the legal area that governs activities in outer space. More specifically it is “associated with the rules, principles and standards of international law appearing in the five international treaties and five sets of principles governing outer space which have been elaborated under the auspices of the United Nations.”⁶ This committee will be reevaluating the five main treaties and agreements that have been created through COPUOS. The specific agreements we are covering will be the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, The Moon and Other Celestial Bodies (Outer Space Treaty), The Return of Astronauts and the Return of Objects Launched into Outer Space (Rescue Agreement), Convention on International Liability for Damage Caused by Space Objects (Liability Convention), Convention on Registration of Objects Launched into Outer Space (Registration Convention), and Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Moon Agreement).

The newest of these agreements was opened for signature in 1979, which shows the dynamic age of these agreements. In recent years, the International Space community has undergone dramatic changes. Not only have the nations of China and India recently entered the space faring community, but there has also been an explosion of a private space sector across the globe. This current trend is expected to continue, with the Republic of Korea expressing interest in developing a space program. With the increasing number of parties engaging in space activities, it is clear that these outdated agreements need to be reevaluated to better address the modern space community.

History

The Treaty on the Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies which, is better known as the “Outer Space Treaty” entered force on October 10, 1967. Currently ninety-eight states have ratified the treaty and another twenty-seven have signed on, but not yet ratified it.⁷ This treaty set the basis of space law and banned the use of weapons of mass destruction in space or on the moon and setting up any kind of military instillation on the moon. It also states that the exploration of outer space should be free to all nations and for the good of mankind. In regard to property rights, the treaty bans any government from claiming parts of the moon or any planet as their own, however it does recognize a state’s jurisdiction to an object that is launched into orbit. As a follow-up to the Outer Space Treaty the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, better known as the “Moon Treaty”, was adopted by the General Assembly in 1979 in Resolution 34/68. However, it did not enter into force until July 1984 and to this day has only been ratified by thirteen states. In addition, none of the states with active space programs signed the treaty, which has caused it to be considered a failed treaty.

⁶ <http://definitions.uslegal.com/s/space-law/>

⁷ <http://www.unoosa.org/oosa/SpaceLaw/outerspt.html>

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The first treaty's effects on space exploration were rapidly realized. Both the United States and the Soviet Union saw decreases in funding for their respective space programs after the treaty was signed because the moon no longer was an object that could be claimed by the first who arrived. The next blow to space exploration came with the Moon Treaties common heritage policy and private investors. The treaty did not offer any kind of property guarantee which discouraged private investors from projects involving the moon and other object. The common heritage policy that discouraged the space powers from investing in establishments on the moon was strongly supported by the Third World. At the time, the New International Economic Order movement was in full force and the leaders of those nations believed that the Western exploration was to blame for the great disparities they faced. Thus they were in favor of redistributing wealth and not allowing the western powers to further the disparity by expanding it into space. The Moon Treaty would be bad for space exploration if it was in force, but because it has failed to be recognized, it has created a lack of legal jurisdiction about investments made on the moon and other objects. This shows the need for unilateral reform to take place by rewriting the treaty or creating a new agreement altogether. Reform is much more likely to work now because China and India have developing space programs thus ending the monopoly the western powers held on space exploration.

Moon Agreement

The legal principles that govern the moon and other celestial bodies have been an area of confusion since the origin of human space flight. The Moon Treaty was an extension of the 1967 Outer Space Treaty and was intended to clear up issues left unresolved from the first treaty. Lunar property rights were the main area addressed in the Moon Treaty with Article 11(1) which states "The Moon and its natural resources are the common heritage of mankind"⁸ providing the guiding principles of Moon law. The so-called common heritage policy has been a source of controversy since the inception of the treaty. The policy has lead to a decrease of investment in the space industry from public and private sources because it lacks a clear definition of lunar property ownership rights.

The Moon Treaty prompts for future reform with provision 5 in article 11 which prompts for States to "undertake to establish an international regime, including appropriate procedures, to govern the exploitation of the natural resources of the moon as such exploitation is about to become feasible. This provision shall be implemented in accordance with article 18 of this Agreement."⁹ This international regime would be responsible for ensuring the sharing of the moon's resources, conflict resolution, and regulating activities that take place on the moon. This agreement was intended to be created when the technology was developed that would enable nations to exploit the moon. This offers a possible solution to the legal conflicts, but much work needs to be done in the area to make this international regime a reality.

The treaty, because it does not provide a clear definition of property rights, has not been accepted by any of the space-faring states. That rejection has caused the treaty to be widely regarded as a failed attempt at space law. However, a growing number of parties engaging or

⁸ <http://www.nss.org/settlement/roadmap/political.html>

⁹ <http://www.oosa.unvienna.org/pdf/publications/STSPACE11E.pdf>

intending to engage in space activities has created an environment “that has led to the recognition within COPUOS of the need for the establishment of standards to guarantee the long-term sustainability of space activities and strengthening international legal and policy frameworks for outer space” according to the Chair of COPOUS *Ciro Arévalo*¹⁰. This recognition by the international community shows the need for a revised or rewritten treaty that encourages an increase in funding for space exploration that can further man kind’s presence on the moon and other celestial objects.

In addition, for an orbital space settlement to be constructed, the Moon Treaty is the key piece of legislation that needs to be revised because resources from the moon will be required for construction. A possible solution could be based off of legislation present on Earth for governing areas of the planet that are not contained within a nation’s border. Considering the significance of the resources that are governed under this treaty, revision of its legal principles is the most important of all of the treaties.

Liability Convention

The rise of the private space industry has shown that the existing legal framework is outdated. New legal protections need to be put in place to protect the investment of private space companies to allow for the growth of the industry. Currently, the liability convention is vague in areas of damage done to a spacecraft in outer space. In addition, it does not include anything about the environment, so damage to outer space is not covered. This treaty treats the launching state as the party responsible for damages which does not account for private space companies that are launching. Limits on the amount of damages that can be applied could be another area the international community should explore.¹¹

Outer Space Treaty

The largest problem with the “Outer Space Treaty” is that it is outdated and struggles to be applicable to the modern space environment. The treaty only addresses states as the actors engaging in space activities leaving states responsible for all actions. The emergence of corporations engaging in space activities shows that a solution needs to be worked out so that corporations have responsibility for their actions and not their parent states. If reforms are not made, the rising space tourism industry may not have a good foundation to be built upon.¹²

The weaponization of space is another pressing concern. Even though actions have been taken to stem an arms race, more needs to be done to ensure space remains a peaceful zone. The United States has taken an approach to develop space based weapon systems and is the only nation to vote against a measure to prevent the weapons in space. In any sort of new treaties or revision of treaties, more effort needs to be taken to ensure that space is kept free of weapons and with private space companies entering space that the ban applies to them as well.

¹⁰ <http://www.newswise.com/articles/view/564649/?sc=dwtr;xy=5028369>

¹¹ <http://www.thespacereview.com/article/1948/1>

¹² <http://www.professorbainbridge.com/professorbainbridgecom/2009/07/revising-the-outer-space-treaty.html>



Registration Convention and Rescue Agreement

The Rescue Agreement is a well-accepted agreement that is fairly sound, but does not take into account space tourism. The agreement does not specifically state that passengers can take advantage of the rules of the agreement¹³. Updating the agreement to reflect modern times may be beneficial for the international community.

The Registration Convention serves to coordinate launches and identify the launching parties, however it has some flaws that will become worse with an increased amount of space travel. The space tourism industry which is expected to launch a large number of daily flights would have to register each flight. This creates a large number of registrations and could lead to canceled flights due to conflicts with other registrations. A new system designed for the higher number of flights expected that could coordinate launches may be the best alternative. Finally, the agreement has not been accepted by all states so if a nonmember state was to conduct a launch it does not have to be registered.

Conclusion

The moon currently holds massive reserves of materials that could unlock the key to nuclear fusion or provide the building blocks for an orbital space settlement. However, current space laws are outdated and have proven incapable to adapt to the changes in the space system. In this committee, I would like to see discussion creating an international regime, if possible, to regulate the moon's resources or another such governing body who would be responsible for regulating the moon. In addition to focusing on the moon's legal issues this committee should also review the four other major legal agreements and work to update them to better reflect the modern space community.

Research Questions

1. Which of the treaties did your nation sign or ratify?
2. Does your nation have plans or have private interests with plans regarding the moon?
3. Has your nation participated in any multinational agreements sharing space technologies or resources?
4. What past approaches have been taken to public lands on Earth?
5. Does your nation have private companies that plan to operate or launch spacecraft?

Helpful Websites

1. <http://www.esa.int/SPECIALS/ECSL/index.html>
2. <http://www.unoosa.org/oosa/en/SpaceLaw/index.html>
3. <http://www.thespacereview.com/article/1948/1>
4. <http://nsschapters.org/hub/pdf/MoonTreatyObjections.pdf>

¹³ http://www.spacefuture.com/archive/considerations_towards_the_legal_framework_of_space_tourism.shtml