General Assembly:
International Cooperation in Space

Chair: Ellen Jennings ’20
Rapporteur: Allie Ehlinger ’22
Dear Delegates,

Welcome to CAMUN’s General Assembly! My name is Ellen Jennings and I am a co-head of the Concord Academy Model United Nations Club. I am overjoyed to be leading you in this exploration of international cooperation in space. The General Assembly is the United Nations’ main policy-making organ, and here all member nations have equal representation to deliberate and pass legislation. Your country will have its own values, perspectives, and concerns to bring to committee, and it is your duty to represent your country as accurately as possible.

We hope to see you challenge yourself in committee, even if this is your very first Model UN conference. We will utilize standard UNA-USA parliamentary procedure to debate, draft working papers, debate some more, and hopefully pass resolutions that will guide member nations of the GA to better help each other compromise. This guide will not cover everything we’ll discuss and debate together; use it as a starting point to your own investigation of the topic.

So here is our charge to you before we meet you all: Please read this guide thoroughly, especially the “Questions for Consideration” near the end, as a way to begin your research. Send your position papers (in any state of completion) to ellen.jennings@concordacademy.org before the start of the committee. If you want to be considered for awards you are required to write a position paper. If you want feedback on your position paper, please email it to me by Wednesday, April 1st. If this is your first conference, don’t feel intimidated or overwhelmed! Numerous resources are available online, and we can help too - email us your questions and concerns. Lastly, don’t forget to brush up on your parliamentary procedure.

Ellen Jennings ’20
Chair

Allie Ehlinger ‘22
Rapporteur
**Acknowledgement:** much of this background guide is borrowed, with permission, from the 17th BYU Model United Nations Conference in 2006.

**Introduction**

In April 2001, in celebration of the 40th anniversary of the first manned flight into outer space, the Russian Federation hosted an international conference on preventing the militarization of outer space. This conference, attended by representatives from most members of the international arms control regime, serves to illustrate that there is a near consensus in the international community that action must be taken to amend and strengthen the international legal instruments governing the use of outer space.

The problems surrounding the use of outer space continue to grow in the 21st Century. The increasing use of satellite technology in all aspects of daily life and the growing economic significance of the space-technology industry are bringing new problems to light. Additionally, the withdrawal of the United States from the 1972 Anti-Ballistic Missile (ABM) Treaty and the subsequent discussions of space-based missile defense systems are changing the arms control landscape in significant ways that relate to the peaceful uses of outer space.

**The History of Weapons in Outer Space**

The United States and the Soviet Union, during the arms race of the 1950s and 1960s, both began exploring options for the weaponization of outer space. During this time, both states began researching and developing space-based weapons and ballistic missile defense systems, and from 1958 – 1962 both conducted, on multiple occasions, nuclear weapons tests in outer space.\(^1\) Recognizing the harmful effects these tests were having on the Earth’s atmosphere, US President John Kennedy and Soviet First Secretary Nikita Khrushchev took steps to restrict military action in space by including provisions specifically addressing space in the 1963 Limited Test Ban Treaty.\(^2\) In 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 (The Outer Space Treaty) was passed, providing a foundation for all international efforts to halt the weaponization of outer space.

The Outer Space Treaty was introduced in the United Nations General Assembly in 1966 by the United States, the Soviet Union and the United Kingdom and it began being observed in October of 1967.\(^3\) Though at times tricky, the Outer Space Treaty “prohibits placing objects carrying nuclear weapons or any other kinds of weapons of mass destruction in orbit or on celestial bodies.”\(^4\) It also concludes that “the establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military maneuvers on celestial bodies should be forbidden.”\(^5\) Classified as an arms control agreement, the Outer Space Treaty is included under the pretenses of

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such, which include “preventing the deployment of weapons in areas where they have not previously been present.”

Other Multilateral Agreements Pertaining to the Peaceful Uses of Outer Space

There are a number of international agreements, in addition to the Outer Space Treaty, pertaining specifically to international coordination in space. These agreements include the 1968 Astronaut Rescue Agreement, the 1972 Space Liability Convention and the 1975 Convention on the Registration of Objects Launched into Outer Space. All three of these agreements are significant in that they build upon the Outer Space Treaty in establishing an international space regime as well as reemphasizing international cooperation and coordination in outer space.

The 1972 ABM Treaty is also significant to the non-militarization of space. The treaty, designed to prohibit the development and use of ABM systems for long-range ballistic missiles, includes space-based missile defense systems among those that are banned. At this point in time, however, the significance of this treaty is questionable at best. On June 13, 2002, the United States unilaterally withdrew from the Treaty, and given that the current US President George W. Bush has long been announcing his intentions to develop missile defenses, it is unlikely that a replacement Treaty will be negotiated. Although the relevance of the ABM Treaty may appear dubious, there is still considerable controversy surrounding this topic, and the debate on the topic will likely continue for some time.

The Outer Space Treaty has ensured that outer space is not to be used for military advance. Yet despite the clarity in this message, there are other points which still lead to confusion on the international stage. The Treaty makes clear that weapons of mass destruction, i.e. nuclear weapons, are not to be fixed to any orbital objects; however, in regards to other forms of weaponry, the message is not as clear. For years the debate has been more theoretical and hypothetical in nature, but with the United States pulling out of the ABM treaty, and the continued proliferation of nuclear and other weapons around the world, the debate shifts slowly away from its hypothetical nature.

In 2021, the United Nations Office for Outer Space Affairs (UNOOSA) is planning to launch a space mission with the Sierra Nevada Corporation to bring experiments and satellites into Earth’s orbit.

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13 Moltz, “Breaking the Deadlock.”

member states were encouraged to apply for the mission in 2017, but the UN focused on extending invitations to developing states to aid with their science and technology development. At present, the mission is closed for entry, and they are on track for a 2021 mission.

**U.S. Justification for Space Weaponization**

In January 2001, a congressionally-mandated space commission headed by Donald Rumsfeld, who is now secretary of defense, recommended that “the U.S. government should vigorously pursue the capabilities called for in the National Space Policy to ensure that the president will have the option to deploy weapons in space to deter threats to, and, if necessary, defend against attacks on U.S. interests.” The United States clearly has legitimate concerns about its space assets, given that U.S. military operations and the U.S. economy are increasingly dependent on them. Satellites are inherently vulnerable to attacks from many different sources, including ground-based missiles, lasers, and radiation from a high-altitude nuclear explosion. However, it does not mean that the United States currently faces credible threats from states that might exploit those vulnerabilities. Most analysts believe no country seriously threatens U.S. space assets.

Only the United States and, in the Cold War era, the Soviet Union have explored, tested, and developed space weapons; Russia placed a moratorium on its program in the 1980s. To be sure, a number of countries, including China, are capable of attacking U.S. satellites with nuclear weapons, but such an attack would be foolhardy, as it would almost certainly be met by a deadly U.S. response. Moreover, as many experts point out, space-based weapons cannot protect satellites because these weapons are nearly as vulnerable to attack as the satellites themselves. With knowledge of these facts, it becomes clear why many countries, including China and Russia, have sought multilateral negotiations on the prevention of space weaponization.

**Space Debris**

Many countries fear the increasing amounts and population of space debris. Such debris, resulting from 50 years of space activity, already poses a considerable hazard to spacecraft. With weaponization plans, such as that of the United States, the crowding problem could worsen as a large number of space weapons could be deployed. The launching and testing of weapons could also increase space debris—deploying space-based weapons would lessen the room for civilian systems.

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In times of peace or war, problems of this manner would occur. If a number of satellites were to be destroyed during the course of a war, some scientists warn, they would create so much debris that it would prevent future satellites from being stationed in space and would limit general space access. Thus, it has been proposed that the weaponization of space be considered a threat to the environment as well as a security problem.

**Types of Space Weapons**

In regard to space weapons it is important to remember that the weapons in question are only those that are based in space and do not include items such as ballistic missiles that travel through space but never actually achieve orbit. There are “two main types of space-based weapons, directed-energy weapons and mass-to-target weapons. Directed-energy weapons are characterized by the propagation of destructive energy at very high speeds.” This particular class of weapons includes weapons ranging from electronic jammers to laser cutting torches. The effect and harm of such weapons depends on whether the weapon is to target an object on Earth or not. Another type is referred to as a mass-to-target weapon. Such weapons are intended to focus on objects leaving the Earth’s atmosphere, providing an almost secondary defense that would cover any objects that made it past directed energy weapons.

**Missile Defense**

As of June 13, 2002 there are no restrictions on the “testing of conventional weapons and lasers in space, the stationing of such systems in space, and the use of space for the interception of ballistic missiles or satellites.” The question then turns to such space-based ballistic missile defense systems, which can come in two forms. The first form, called orbiting kinetic kill vehicles, is “designed to knock out enemy ICBMs in their boost phase.” The second form is a Space Based Laser (SBL) that would essentially consist of high-energy laser platforms based in space, which would combat ballistic missiles by “focusing and maintaining a high-powered laser beam on a target until it causes catastrophic destruction.” It may still be several decades before either of these technologies is harnessed or ready to test.

**Anti-Satellite Weapons**

It is reasonable to believe that countries could resort to differing methods, such as anti-satellite weapons, to counter critical and vulnerable space-based components such as space-based interceptors, a space-based laser, or space-based tracking satellites.

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21 Preston, Space Weapons Earth Wars, 23.
22 Ibid.
23 Ibid.
24 Ibid.
25 Moltz, “Breaking the Deadlock.”
China seems to have opted for a ground-launched kinetic-kill vehicle, which can be used to destroy their target by colliding with it at extremely high velocity. Such weapons are relatively cheap and technically easy and seem to be well within China’s and other country’s grasp. These vehicles could reach a satellite in low-earth orbit (LEO); if mated with a larger booster, they might be capable of reaching higher orbits. Another possible anti-satellite weapon would be a space mine armed with conventional charges. Resorting to using missiles to deliver a cloud of shrapnel to a particular spot in LEO at a precise time and destroy a space-based interceptor or space-launch satellite as it arrives there is also a possibility.

It should be noted that, although China and other countries have some technology capabilities that could be used potentially as anti-satellite weapons, it does not mean they have already developed them or have the intention to do so. Several recent editions of the United States’ Chinese military power report claim China is developing and intends to deploy such weapons, including a direct-ascent system, ground-based laser anti-satellite weapons, and micro-satellites for weapons purposes.

Privatization of Space Exploration, Travel, and Technology

In the Commercial Space Launch Amendments Act of 2004, the United States officially legalized private space travel, meaning that companies outside of the government can access space. As NASA has been less of a priority of the US government in the past decade, private companies such as SpaceX and Virgin Galactic have risen up to support space travel with supplies for the International Space Station (ISS). Privatization of space travel is more cost-effective for NASA, reallocating resources spent on restocks to its research and development. And, the abundant natural resources available in space and the possibility of expansion for space tourism draw more and more companies to consider engaging in space travel and technology. However, private-public partnerships are precarious, and with the stakes as high as the funding and lives involved in space travel, there is much risk in allowing the private sector to promise support to government projects.

Conclusion

Weaponization of outer space will grow exponentially as an issue before the international community as the 21st century moves forward. The availability of such technology and the number of states who possess such technology has grown tremendously over the past few decades and will continue to do so rapidly in the near future. The commercialization of many space-based technologies has also blossomed in the 21st century. Imaging telecommunications, tracking signals and intelligence pursuits are some of the most common forms in which space-based technology has spread to over 50 states. Delegates must consider the definitions of all terms related to the weaponization of outer space as they negotiate on these topics. The Outer Space Treaty leaves such terms vague and open to many

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29 Ibid.
33 Ibid.
interpretations. The Outer Space Treaty uses the term “peaceful purposes,” but this clause is applicable only to the moon and other celestial bodies, excluding the rest of outer space. The international community stands divided on whether or not there should be an instrument in place that prohibits all weapons in space. Delegates must consider if their state differentiates between defensive and offensive weapons in outer space. The issue of weaponizing outer space remains a virtual taboo subject in many spheres, it is the duty of the General Assembly 1st Committee to make headway into this topic and thereby increase the security of our world.

**Questions to Consider**

1. How does your country engage with space exploration and/or weaponization in space?
2. What does your country envision as an ideal future for space?
3. Where do you see the potential for more international conflict in space?
4. How do you define the term “peaceful uses,” as used in the Outer Space Treaty of 1967?
5. Is the current distinction of “military” uses and “non-military” uses sufficient when referring to “peaceful uses”?
6. Should the Outer Space Treaty be amended, or replaced completely to fully ban all space-based weapons?
7. What preventative measures may be taken to ensure that space powers such as the United States and Russia do not enter into an outer space arms race?
8. Should the reports of the United States regarding the potential of China weaponizing outer space be a cause for alarm?
9. Should governments encourage privatization of space travel and technologies? What potential for conflict is there in allowing companies to profit from space travel, tourism, and mining?
10. Should governments enlist help from private space companies to support government projects? Should governments support private space travel?