SIMULATION COMMITTEE GUIDE

UNOOSA

UNITED NATIONS OFFICE OF OUTER SPACE AFFAIRS

Lia Alvarez & Sofia Brenes

2023

Contents

1. **Presidents' Letter**

2. **Simulation:**
   - **I.** History/Context
   - **II.** Current Situation
   - **III.** Key Points of the Debate
   - **IV.** Guiding Questions
   - **V.** Bibliography

Presidents' Letter

Dear Delegates,

First and foremost, we would like to say how extremely excited we are to be your presidents in the 21st version of CCBMUN, and we can't wait to see you all in this very special committee. We are Sofía Brenes and Lía Álvarez, currently 9th grade students at Colegio Bolivar and will be your fellow presidents for UNOOSA. This will be the first time for us to preside over a committee and will be a very new experience for all of us. Yet we are anxious for the time of the model to arrive and to be able to watch this debate come into fruition.

This is the first time for the United Nations Office of Outer Space Affairs to be included as a committee in the CCB model. For this reason, we have worked extremely hard to bring this committee to life and make sure it provides an enjoyable experience for everyone involved. As space exploration becomes more frequent and extensive, it is important that we start to introduce committees and topics as those that you will encounter in this debate, for they will likely define the future of humanity. For this reason, we are thrilled to be able to bring this committee to you. Additionally, the topics we have chosen are of utmost relevance, and we are sure that they will make for great debates.

As stated previously, this will be our very first time as presidents, so have a little patience with us. However, do know that we have both been in MUN since sixth grade, therefore we have a lot of experience and can relate to what you all might be going through as delegates.

Just as we have been the experienced delegates, we have also been rookies. We know what it's like to be intimidated and confused. This being a middle school committee, we understand this will probably be a new experience for most of you, so just know we are here to help you with anything you might need; therefore, never hesitate to ask. You can email us at unoosa@ccbcali.edu.co.

We look forward to seeing the way the debate will flow and the solutions you will come up with. As presidents, we want to make sure that you have a great time in the model. We also hope you are able to put yourself into the role of your country and learn more about the current issues related to something as ambiguous as space. We suggest that you thoroughly research about your country and our topics to make sure that everything mentioned previously is possible. We are anxiously waiting to be able to introduce this new committee to the model and to all of you. Hopefully everything ahead of us will be nothing but positive and everyone involved in the development of this committee will be able to enjoy its whole duration.

See you soon delegates!

Sincerely,

Lia Alvarez & Sofia Brenes

UNOOSA Chair

Simulation topic: *Prevention of an Arms Race in Outer Space*

I. History/Context

An arms race, as defined by the Encyclopedia Britannica, is "a pattern of competitive acquisition of military capability between two or more countries. The competitive nature of this buildup often reflects an adversarial relationship." During the Cold War, the Soviet Union (present-day Russia) and the United States continually antagonized each other through an aggressive arms race, which developed, yet was not limited to, the Space Race. Throughout the Space Race, the Soviet and American powers sought to achieve superior spaceflight and aerospace capabilities. In 1957, the first satellite was launched into space, it was created by Russia and named "Sputnik". Since then, there has been rapid development over the past years in the exploration and use of outer space. The utilization of satellites for remote sensing, global positioning and communication, for instance, has become crucial in modern life.

Whilst the Space Race is long over, it is important to highlight it had its origins in the ballistic missile-based nuclear arms race between Russia and the U.S. For this reason, had the space race endured, the nuclear arms race would have as well; therefore, it is important to prevent an arms race in space, for it would ensure disruption of peace and an adjacent arms race on earth. A major concern is that developed nations, with sufficient monetary resources, will appropriate outer space as their own and then use it for future space wars. This considering

there has already been both a space and arms race between notable developed nations. In a few years' time this may become a serious problem since technology is advancing at such a rapid rate. The United Nations is doing everything possible so that the use of space weapons is regulated, and no country exceeds the limits of their power.

On another note, satellites are a prominent part in the economic growth of developing countries, and they contribute to around 40% of Sustainable Development Goal (SDG) targets (*Using Satellites to Monitor Progress toward the SDGs*, 2017). In Indonesia, for example, the U.K. space agency INMARSAT has a program aimed at improving the management of the fishing industry, which is important to the Indonesian economy. Being a productive and beneficial tool for all nations, the destruction of these satellites would put the globe at a great disadvantage. There have been cases of nations destroying their own satellites by order of their respective governments, including China and India, a technology that could easily be utilized against the satellites of other nations. There are numerous types of satellites: Astronomical satellites; Bio Satellites; Earth observation satellites; Communication satellites; and Killer satellites (Space Weapons). As can be observed from the information stated previously, the technology for space weapons already exists. As a matter of fact, space weapons themselves have already been developed, and an arms race in space with these technologies would be extremely problematic.

Figure 1. International Space Station (NASA, 2008). It has been evidenced that a Russian ASAT test endangered the ISS and its crew.

With the objective of preventing conflict and an arms race in space, the Outer Space Treaty was created in 1967 and opened for signature by the three depository governments (Russia, the UK, and the US). It entered into force in October of that same year. To reaffirm the fundamental principles of said treaty and advocate for a ban on the weaponization of space, on October 28, 2009, the UN General Assembly adopted a resolution entitled “Prevention of an Arms Race in Outer Space”. The resolution was adopted by a vote of 176 in favor, none against, and two abstentions (the United States and Israel). There is an annual Outer Space Security Conference Series, organized by the United Nations, where countries state their position regarding the use of weapons in space.

II. Current Situation

The militarization of space has become an imminent threat to international security, particularly in more recent years. Some believe space is, in fact, already militarized. A key

aspect of militarizing space is the prospect of an arms race, which would consist in the development of space weapons. Mostly, countries have dealt with anti-satellite weapons (ASAT) in the past, which are designed to incapacitate or destroy satellites for strategic and tactical purposes. Whilst these weapons were originally designed and tested by the U.S. and Russia during the Cold War, they were unused until January 11 of 2007 when China successfully orchestrated a direct ascent anti-satellite attack on one of its own ageing satellites. Arms control experts called the test a troubling development that could foreshadow an anti-satellite arms race. This was the first real escalation in the weaponization of space to occur since the 80s. Since then, the threat of an arms race has not ceased and has in fact escalated further. However, the only nations to have anti-satellite missiles so far are China, Russia, India, and the United States.

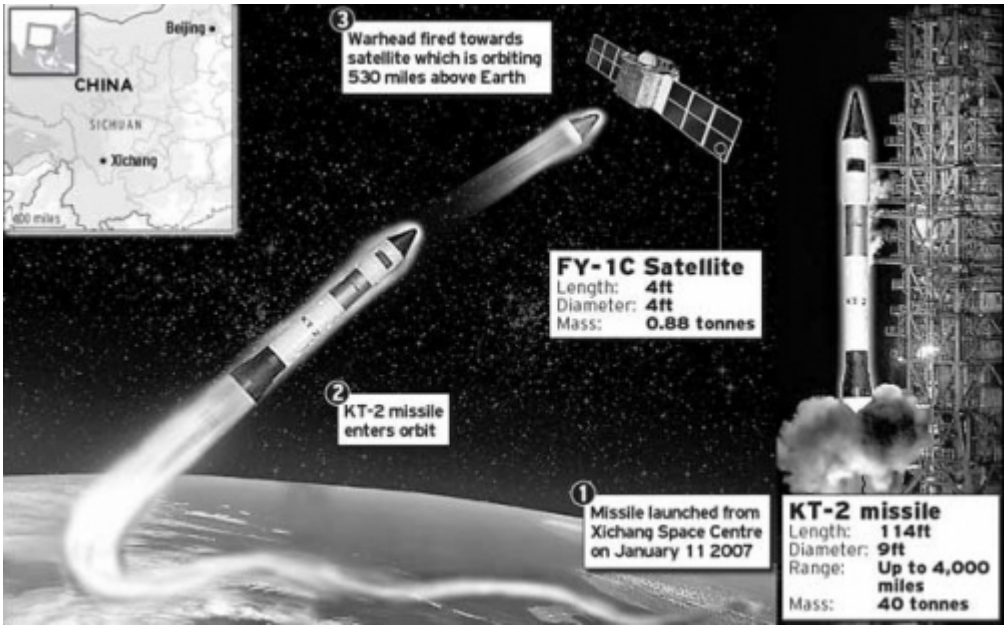

Figure 2. China's ASAT system drawn by Western Media.

Further on, in 2008 the U.S conducted Operation Burnt Frost to intercept and destroy non-functional U.S satellites and prevent the re-entry of these, which apparently contained over 1,000 pounds of hazardous hydrazine propellant. Russia accused the U.S of utilizing the

hydrazine propellant as a cover-up to test an ASAT weapon. A few years later, in 2014, Russian satellites, which allegedly had offensive purposes, were detected by the United States. Shortly after, the U.S. accused Russia of possessing a kamikaze satellite that, when instructed to attack, crashed into another satellite, destroying both. This accusation was based on irregular behaviour occurring on a Russian orbiter detected by the US. Both these claims were denied by Moscow, yet raised serious concerns for the West. The hostility between Russia and the United States increased even more in 2015 when president Vladimir Putin asserted that U.S. and NATO forces possess high-precision long-range non-nuclear weapons. Said weapons are comparable in their effect to nuclear weapons and utilize similar technologies as ASAT weapons. Russians fear that, in a conflict, these weapons may be used against them in a coordinated strike against their nuclear, conventional, and even space forces. This was one of the key motivations for Russia to test new ASAT weapons in 2017, which left an immense amount of space debris and furthered NATO's concerns.

The escalation of this problem, however, worsened exponentially in 2019 when the North Atlantic Treaty Organization (NATO) officially recognized space as a domain for military operations because of international and national security concerns. The organization claimed this was not made for offensive reasons, but rather to defend western satellites from international threats. Moreover, on December 20, 2019, the US Space Force was officially launched, this was the first time a branch of the military was assigned for combat in space. It was announced that former president, Donald Trump, already had 77 spacecraft and more than six thousand personnel designated for this branch. President Vladimir Putin replied to this, stating that the U.S. saw space as its "theatre of military operations" and that Russia would have to address the threat which the U.S. posed. Since then, both Chinese and Russian

Operational satellite fleets have grown by around 70% and Russia, alongside Roscosmos, the Russian state space corporation, have explicitly highlighted their interest in the weaponization of space. To add to the concerns, that same year India conducted Mission Shakti, the country's first ever ASAT missile test. Later in 2020 Russia made another ASAT test and in 2021 China orchestrated a hypersonic launch of an intercontinental ballistic missile, this is where the missile is launched from a rocket before gliding down to its target with pinpoint accuracy. The only hope there has been for de-escalation so far has been the adoption of the ASAT testing resolution of the UN First Committee in 2022. Whilst it is not legally binding, the U.S. did pledge to not conduct destructive ASAT missile tests, yet this does not guarantee anything.

Figure 3. Inauguration of the U.S. Space Force, flag unveiled at White House.

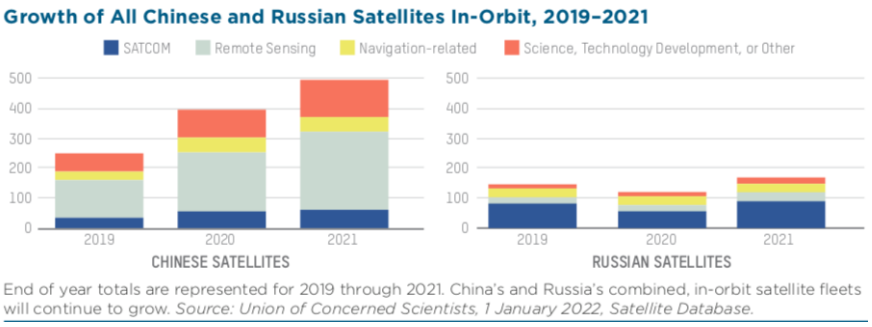

Figure 4. Chart demonstrating the growth of Russian and Chinese satellite fleets throughout the past years to back up the interest these nations have portrayed in militarizing space.

Based on these events, satellite protection is now a very important national security priority for every single nation. Satellite attacks could cripple internet connections, telecommunications and create an instant economic recession as 98% of all currency is digital. An attack on a nation's satellite access would be catastrophic. Currently, as stated by the fourth article of the Outer Space Treaty, which provides the legally binding rules for the peaceful usage of outer space, "States Parties to the Treaty undertake not to place in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner." This means weapons of mass destruction, such as nuclear weapons, can neither be stationed nor used in outer space. There is, however, no definition of "weapons of mass destruction" within the treaty, so it is very ambiguous, and there is no mention of conventional weapons. ASAT weapons would be categorized as conventional weapons in this case, and so in all technicality, they would be allowed in space. Yet, this is complicated due to the fact the Outer Space Treaty foments the peaceful usage of outer space and prohibits any military activities on celestial bodies. The stationing of weapons is in fact a military activity, and therefore it is very difficult to determine the legality of ASAT weapons and of an arms race in outer space. Finally, it is also important to mention that

there are other technologies arising aside from those mentioned previously. For example, there are kidnapper satellites being developed by China, an orbiter designed to capture smaller satellites with a robotic arm, spoofing mechanisms to send signals with false data to drones, and several ASAT technologies being developed by Iran, amongst many others. It is vital to find a solution to this problematic and prevent these technologies, and the hostility which they incite, to develop any further.

III. Key points of the debate

- Satellite protection and the effect of anti-satellite missiles
- The stationing of weapons in space
- Maintaining outer space a peaceful domain
- Regulating the stationing and development of space weapons
- Military to monitor and control threats from outer space by other nations
- Ownership of territory in outer space
- Preventing an ASAT arms race in outer space

IV. Guiding questions

1. Does your nation believe it has power over any space territories?
2. Does it believe that a nation should be allowed to develop space weaponry technologies?
3. Does your country have a space program? If so, describe some of its missions.

4. Has your country participated in any military actions in space? If so, describe these.
5. What are some public announcements that your nation has made, if any, about the ongoing space militarization situations?
6. Does your country believe that weaponry in space should be banned or restricted?

V. Bibliography

Figure 1:

Potter, S. (2021, November 15). *NASA Administrator Statement on Russian ASAT Test*. NASA. https://www.nasa.gov/press-release/nasa-administrator-statement-on-russian-asat-test

Figure 2:

US media speculates over China's ASAT test - Global Times. (2013, January 6). Www.globaltimes.cn. https://www.globaltimes.cn/content/754019.shtml

Figure 3:

Garamone, J. (2020, May 15). *Space Force Flag Unveiled at White House*. U.S. Department of Defense. https://www.defense.gov/News/News-Stories/Article/Article/2189023/space-force-flag-unveiled-at-white-house/

Figure 4:

Hitchens, T. (2022, April 12). *DIA sees "dramatic" change in space competition; China, Russia "mature" capabilities*. Breaking Defense. https://breakingdefense.com/2022/04/dia-tracking-dramatic-change-in-space-competition-as-china-russia-mature-capabilities/

Blinken , A. J. (2021, November 15). *Russia conducts space-based anti-satellite weapons test*. United States Space Command. https://www.spacecom.mil/MEDIA/NEWS-ARTICLES/Article/2285098/russia-conducts-space-based-anti-satellite-weapons-test/

Broad, W. J., & Sanger, D. E. (2007, January 18). China Tests Anti-Satellite Weapon, Unnerving U.S. *The New York Times*. https://www.nytimes.com/2007/01/18/world/asia/18cnd-china.html

CNS. (2022, May 31). *Proposed Prevention of an Arms Race in Space (PAROS) Treaty | Treaties & Regimes | NTI*. Nti.org. https://www.nti.org/learn/treaties-and-regimes/proposed-prevention-arms-race-space-paros-treaty/

Ellyatt, H. (2019, December 5). *Putin fears the US and NATO are militarizing space and Russia is right to worry, experts say*. CNBC. https://www.cnbc.com/amp/2019/12/05/nato-in-space-putin-is-worried-about-the-militarization-of-space.html

Geneva. (2019). *INTERSESSIONAL PANEL OF THE UNITED NATIONS COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)*. https://unctad.org/system/files/non-official-document/CSTD_2019_Ipanel_T2_Space_con07_ESCAP.pdf

Gramer, J. D., Robbie. (2022, April 14). *China and Russia Are Catching Up to U.S. in Space Capabilities, Pentagon Warns*. Foreign Policy. https://foreignpolicy.com/2022/04/14/china-russia-us-space-race-catching-up/

Morelle, R. (2019, June 19). Spy satellites reveal extent of Himalayan glacier loss. *BBC News*. https://www.bbc.com/news/science-environment-48696023

Raising Alarm over Possible Space Wars, First Committee Delegates Explore Ways to Build New Order for Preventing Celestial Conflict, Confrontation | Meetings Coverage and Press Releases. (2018). Un.org. https://www.un.org/press/en/2018/gadis3609.doc.htm

UN Disarmament Commission debates ways to prevent arms race in outer space – UNAA Victoria. (n.d.). Unaavictoria.org.au. Retrieved August 23, 2023, from https://unaavictoria.org.au/2018/04/04/un-disarmament-commission-debates-ways-prevent-arms-race-outer-space/

Using Satellites to Monitor Progress toward the SDGs. (2017, August 23). World Bank. https://www.worldbank.org/en/news/feature/2017/08/23/using-satellites-to-monitor-progress-toward-the-sdgs

Williams , Dr. D. R., & Bell, E. (2022, October 28). *NASA - NSSDCA - Spacecraft - Details*. Nssdc.gsfc.nasa.gov. https://nssdc.gsfc.nasa.gov/nmc/spacecraft/display.action?id=1957-001B#:~:text=Description