COMMITTEE: DISEC
INDEX
1. About DISEC
2. AGENDA 1: PREVENTION OF AN ARMS RACE IN OUTER SPACE
3. AGENDA 2: Controlling the proliferation of modern weapons

About DISEC
It is The First Committee of the UN General Assembly. The First Committee deals with disarmament, global challenges and threats to peace that affect the international community and seeks out solutions to the challenges in the international security regime.

It considers all disarmament and international security matters within the scope of the Charter or relating to the powers and functions of any other organ of the United Nations; the general principles of cooperation in the maintenance of international peace and security, as well as principles governing disarmament and the regulation of armaments; promotion of cooperative arrangements and measures aimed at strengthening stability through lower levels of armaments.

The Committee works in close cooperation with the United Nations Disarmament Commission and the Geneva-based Conference on Disarmament. It is the only Main Committee of the General Assembly entitled to verbatim records coverage.
AGENDA 1: PREVENTION OF AN ARMS RACE IN OUTER SPACE

The right of all states to explore and use the outer space, this unique shared environment, for the benefit and in the interest of all humankind is a universally accepted legal principle. It is the concern and responsibility of all states to ensure that these rights can be exercised in the interest of maintaining international peace and security.

Introduction

The prevention of an arms race in outer space, also known as PAROS, is one of the most important issues currently under consideration. One of the reasons this issue is critical is that satellites that are sent to orbit in the space are vulnerable to damage/ destruction by almost anything even as small as space debris. This issue is also largely prevailing because of the lack of general consensus upon the nations around the globe as to which of these outer space elements should be included in the category of “space weapons”.

The issue could be divided into two major categories:

• Militarization of Outer Space
• Weaponization of Outer Space

Militarization of Outer Space: Militaries all over the world rely on satellites that have been put into the space since the earliest communication satellites were set free to orbit it. Global Positioning Systems (GPS) all over the world are used for so called “peaceful purposes” while their peacefulness remains profoundly doubtful. There are satellites which could be used for controlling bombing raids and other malicious purposes. Therefore, the issue of militarization of space is a very deep and important area for discussion to ensure the safety and security of all the nations around the globe.

Weaponization of Outer Space: Transporting potentially destructive satellite devices into the space orbit is generally referred to as Weaponization of Outer Space. Although not agreed upon largely, the weapons which use space as a medium to travel before hitting their targets such as hypersonic technology vehicles are also considered a part of weaponization of outer space. In addition, missiles which carry dual characteristics,
meaning that they could destroy space assets, as well as other ballistic missiles could also be deemed part of the problem.

**History**

The history of space weaponization goes back to the late 1950s, when first anti-satellite systems went through tests. As yet, however, weapons have not been stationed in space. Nuclear and other weapons of mass destruction are banned from space under the 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, which is usually called the Outer Space Treaty. The treaty barred signatories from launching into Earth’s orbit any nuclear weapons or any other types of weapons of mass destruction, as well as banned the installation of such weapons on celestial bodies and the use of any other method to put such weapons in space. But the Outer Space Treaty mentions no restriction on conventional weapons in space.

**Current Status of PAROS**

PAROS is a UN resolution that reaffirms the fundamental principles of the 1967 Outer Space Treaty and advocates on banning on the weaponization of outer space. The resolution also advocates on the need of further advancements in protecting the outer space from being weaponized. It also called upon the Conference on Disarmament (CD) to advance into further proceedings to confirm a weapon free space. In 1981, the CD led to begin talks on the issue and established an ad-hoc committee on PAROS in 1985. However, due to opposition, it was dissolved in 1994. In 2005, the UNGA adopted further measurements to ensure the solution of the PAROS issue and approved an annual resolution on “Transparency and Confidence Building Measures in Outer Space Activities”. This issue has been unsolved due to opposition by countries like the U.S who claims that there is no arms race in outer space and therefore see no need for such treaties. On the other hand, China and Russia have produced various draft treaties reiterating the need of a weapon free outer space. Some of the suggestions made by them include exchange of information.

**Background Overview of the issue of PAROS**

In the 21st century, the role of outer space environment has become more important than ever. Outer space resources today are utilized in all developmental aspects, ranging from weather forecasts to navigation and surveillance. Outer space activities play a vital role in social, economic, scientific and technological development all over the world. Today, there are more than 1,000 operational satellites in orbit around the Earth. More than 60
States, government consortiums and other entities own or operate those space assets and more and more States are becoming spacefaring nations and/or increasing their space-based capabilities and resources.
In the previous decades, the number of space actors and space users has increased significantly, resulting in a more clogged outer space. If this increase continues, the risk of threats to outer space objects would increase in an alarming manner, too.

**PAROS and arms control in reference to nuclear disarmament**
If the weaponization of space occurs in the current scenario, not only would it be extremely destructive to the strategic balance and stability of international peace, but also disrupt the existing arms control instruments. This would further force nations across the globe to take initiatives to leave other nations behind, behind thus starting an altogether never ending space race. It is evident by history that initiatives like these do nothing else than just disrupt international peace efforts. The withdrawal of the U.S from the Anti-Ballistic Missile Treaty in 2001 and the development of US ground- and sea-based “missile defences” raised the tensions with the Russian Federation and caused an increased missile proliferation. Deploying technologies like this would result in the nuclear weapon states refusal to sign new treaties that allow for a regulation on nuclear weapon technology.

**Outer Space and Missile Defence**
Missile defines is a shield that has been used by various states against the threats of possible outer space missile attacks. To avoid such attacks, countries like the U.S have been focusing on developing ballistic missile defines shields. Under the impression of defines, countries may use belligerent technologies such as the Kinetic Energy Interceptors which are missiles that can destroy enemy missiles by hitting them when launched in the space. Even if used for the purpose of defines, these missile technologies may start an unstoppable and extremely destructive chain of missile attacks in the outer space. This specially poses a great threat since the space debris which may result by this could further destroy potential civil and commercial space infrastructure like satellites.

**Outer Space and Space Debris**
With an increasing number of space objects, the space environment is becoming more and more congested which means there is an increased risk of collisions resulting from space debris in the outer space. With more than 5 decades of space activity,
the space debris could alarmingly reach out to a point where it might not be possible to deploy space weapons around them, pushing for a need to deploy these space weapons in Low Earth Orbit (LEO). This would further worsen the situation as there will be less or even no room for satellites and other objects used for civilian purposes. According to scientists, if a space race was to start and a number of satellites were destroyed, the space debris could increase to an extent where it might be impossible to deploy new satellites from being stationed.

Current status of deployment of arms in the outer space
At present, there is no authenticated proof of any known weapons being deployed in the outer space. However, China, in the year 2007, and the U.S, in the year 2008, has successfully demonstrated anti-satellite capabilities. The U.S is also believed to have been working on the development of a ballistic missile defence shield.

Ironically, the idea of developing the missile defense itself could be an offense under the deception of defense. This evidently puts the nations across the globe to be alarmed and cultivate a possible arms race which could lead these nations to indulge in a never ending competition of equipping themselves with better, more suitable and technologically advanced space weapons to take the lead in getting full spectrum dominance over each other. Major defence contractors are actively developing their aerospace capabilities, and smaller aerospace corporations are competing to prove their technical innovation in making satellites smaller and launch vehicles less expensive. There are many reasons to be concerned about the development of missile defence and space weapon technology, including the increased conventional military dominance by the US, the vast waste of resources that accompanies any arms build-up, whether it is a race or an asymmetrical surge, and the physical results of fighting in outer space—especially space debris, which can destroy civil and commercial space infrastructure such as satellites.

The role of existing treaties in resolving the issue
According to a report of the General Assembly, the GGE “recognized that the existing treaties on outer space adopted by General Assembly especially the 1967 treaty on the Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies have played an invaluably important role in consolidating a
strengthened environment of international peace and security regarding the outer space. The group also recognized that there should be a continued supervision of all space activities by all states to ensure a safe outer space for all."

**The role of international law with regards to the PAROS issue**

It is a concrete reality that in order to maintain the international peace and security, abiding by international law is necessary. To ensure that, a greater international cooperation is needed where all states have to act responsibly and make intimations in a timely manner in case of any unforeseen incident regarding the safety and security of all states whenever they are carrying out any outer space activities. It is also necessary that these activities be in the best interest of all the states and not pose a threat to any nation in any possible way. In order to prevent any mishaps, failures or security threats related to outer space activities, all states should be well aware of the international law and must adhere to the safety and security measurements that have been set by the concerned agencies or bodies. Such cooperation is needed to prevent all states from facing any possible threat related to the outer space objects.

**Summary of Existing Legal Framework with years formulated regarding the PAROS issue**

1963 *Treaty Banning Nuclear Weapon Tests In The Atmosphere, In Outer Space And Under Water*

1967 *Outer Space Treaty* (formally titled as 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.)

1968 *Rescue Agreement* (formally titled as the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space)

1971 *Agreement Relating To The International Telecommunications Satellite Organization "Intelsat"* (with annexes and Operating Agreement)

1972 *Liability Convention* (formally titled as the Convention on International Liability for Damage Caused by Space Objects)

1975 *Registration Convention* (formally titled the Convention on the Registration of Objects Launched into Outer Space)
1979 Moon Agreement (formally entitled the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies)


The existing legal framework has undoubtedly prevented the deployment of weapons and use of force or military activities in the outer space. However, as seen by some states, the scope is still limited and there yet need to be more efforts to avoid arms race in the outer space. With the new technologies in this regard, the legal framework can be strengthened to make these treaties more effective.

The role of international community in general regarding the PAROS issue

Nations across the world have been showing immense cooperation in taking steps to prevent any threats from outer space activities. The international community has taken concrete steps and advancements in making effective and fruitful initiatives and agreements for safeguarding the space environment. Various transparency and confidence building measures have been proposed and taken by a major consensus by the member states. These measures include working papers on transparency and confidence building measures in outer space, treaty proposals for the safety and security of the space and various other related proposals. In June 2012, the European Union presented a draft of a non-legally binding international code of conduct for outer space activities to the international community in Vienna followed by open ended consultations in Kyiv in May 2013. A large number of UN member states are of the opinion that a multilateral treaty is the only solution to prevent an arms race in outer space. In 2006, the Russian Federation insisted on prohibition of weaponization and the Russian Federation, along with the People’s Republic of China, has been strongly supporting the prohibition of use or threat of use of force against space objects. On the other hand, “The United States systematically argues that an arms race in outer space does not yet exist, and it is therefore unnecessary to take action on the issue. The rest of the international community agrees that, because there is not yet an arms race, now is the time to prevent weaponization of space.” Many member states have now developed policies that prevent
them from being the “first” state to put weapons (any objects possessing destructive capacity) in the outer space.

**Bloc Positions**
The majority of UN states are concerned that the weaponization of space will lead to an arms race, indeed they also believe that a multilateral treaty is the only way to prevent such an arms race. This treaty should not limit space access but would prevent the deployment of weapons in space. The General Assembly each year a resolution on the prevention of an arms race in outer space is introduced and adopted by an overwhelming majority of member states. As a matter of fact, every country in the world votes in favour of the PAROS treaty, except the United States and Israel - which abstain.

**Possible Solutions**

**Transparency and confidence-building measures in outer space (TCBMs)**

In 2007, the UN Secretary-General issued a report compiling the views of member states on the issue of TCBMs in outer space, as requested by a General Assembly resolution.28 The report was issued in two parts: A/62/11429 and A/62/114/Add.1. Prevention of the placement of weapons in outer space (PPWT) PPWT 31is a joint Russia-China draft treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects. The draft treaty was presented by The Russian Federation’s Foreign Minister, Sergey Lavrov on February 12, 2008. The draft treaty is the only treaty by that has been formally introduced to the CD. According to Minister Lavrov, the draft treaty is designed to “eliminate existing lacunas in international space law, create conditions for further exploration and use of space, preserve costly space property, and strengthen general security and arms control.”

**Overview of the draft treaty**
- Both 2002 paper and 2008 draft emphasize the need of a “military confrontation” free outer space
- The existing arms control and disarmament agreements play a positive role but are insufficient to address the issue of disarmament
- Further measures must be taken to prevent the placement of weapons in the outer space
- The draft explains the terms “outer space,” “outer space objects,” and “weapons in outer space.”
The draft calls for the state parties not to place any weapons in the outer space, not to install any weapons on celestial bodies, not to use or threaten to use any kind of force against outer space objects.

The draft further calls upon the member states to use the outer space strictly for peaceful purposes and follow the guidelines under the international law.

The draft also calls upon establishment of an executive organization which shall regulate additional protocols needed and record complaints against treaty violations and take measures to prevent violation of the treaties.

**Group of Governmental Experts (GGE)**

The GGE is a small group comprised of international space experts from space faring states. The main objective of the GGE is to make possible an atmosphere of international cooperation to solve the issue of PAROS and to reduce the possibility of misunderstandings or miscommunication regarding activities in the outer space. The GGE was supposed to carry out investigations and observations and prepare a report making conclusions and recommendations on the current developments of the issue of PAROS. The first GGE was formed in 2004 comprising of 15 members but could not prepare a substantive report. The second GG was formed in 2009 comprising of 15 members and successfully concluded a report.

Following were the recommendations made in this report:

- Dialogue on norms for state use of information and communications technologies (ICTs), to reduce risk and protect critical infrastructures
- Confidence-building and risk reduction measures, including discussion of ICTs in conflict
- Information exchanges on national legislation and national ICT security strategies, policies and technologies
- Capacity-building in less developed countries
- The elaboration of common terms and definitions on Information Security. The General Assembly in 2011 unanimously approved a resolution (66/24) calling for the formation of the last (third) GGE. The first meeting of GGE took place in New York in August 2012; the second took place in Geneva in January 2013, and the last in June of 2013 in New York. The GGE concluded its work on 16 July 2013

**International Code of Conduct for Outer Space Activities**
The International Code of Conduct for Outer Space Activities (ICoC) was initiated by the European Union in 2008. The primary function of the code was to formulate a set of principles and guidelines agreed upon by the states on a voluntary basis. It was also decided that the code will not have any authoritative or enforcement mechanism. The two major reasons behind this idea were the development and implementation of transparency and confidence building measures. The three main principles of the ICoC are:

- A right of all countries to use the outer space for peaceful purposes
- Protection of security and reliability of space objects in orbit
- Consideration for states’ legitimate defense interests

ICoC was formulated to be applicable to all outer state activities including states, corporations, universities and others. The code was intended to address the safety and sustainability of space environment as well as stability and security in outer space. Since it addresses both of the above mentioned aspects, it was decided that the ICoC will also include those member states that are not members of the CD or COPUOS. The main purpose of formulating the ICoC was not to contradict any on-going discussions, but to “find an agreement on a text that is acceptable to all interested States and that thus brings effective security benefits in a relatively short term.”

Support from the international community
- The ICoC has been endorsed by Australia, Canada and Japan
- Brazil, Russia, India and China on the other hand have shown disappointment based on the fact that they were not consulted properly in this development.
- Some countries have reservations, especially those with little presence in space, that the ICoC could play a role in limiting their future capacities in carrying out space activities
- India has raised concern that the code will not be effective without legally binding obligations
- The United States, having had a national debate about this issue, endorsed the ICoC
- Some countries have raised concerns that the ICoC may be interfering with some of the countries’ domestic policy making
- Despite disagreements or reservations, the code has also received positive endorsement since it deals with both environmental protection as well as arms control
The first consultations in Kiev in May 2013 turned out to be the first multilateral meetings held and the EU announced that it would include all the participating nations’ concerns while incorporating views in the code.

The second consultations that took place in Bangkok in 2013 focused on the “body” of the proposed text and the EU announced that a revised draft would be presented in early 2014 and that one more consultation meeting might be necessary before concluding the ICoC initiative in 2014.

Questions that a Resolution Must Answer
This is the most important part of the study guide. It will facilitate the process of your writing your resolutions. In this section, the basic and most crucial parts that your resolution must tackle will be delineated. Remember that though not obligatory, following the directions provided will ensure the putting together of a solid and considerably ample resolution, which is the first step to a good Committee Session, and subsequently, to a good MUN. The basic information that your resolution must adhere to, is the following:

• Definitions: As everything in space can constitute grave danger, i.e. it only takes a small rock to destroy a satellite of incalculable cost, it is crucial that you define or at least outline what constitutes weaponization of outer space. Definitions are a key part of the MUN as a whole. It is how you will define the topic that will define the lobbying, the debate and eventually the final resolution. What is more, you can consult the working paper issued by China and Russia, where definitions are discussed upon vital topics, such as Outer Space, Space Weapons, etc. (You will find a citation to this working paper later on)

• Another issue that should be tackled is the use of space. As you have figured out through your individual research, it all eventually boils down to why or why not should outer space be used as an environment free from weapons, and all activities conducted in it should have a benign and peaceful nature or purpose. For a more comprehensive analysis of the use of space, I would recommend the following form of categorization: Military Use Scientific Use Commercial Use This form of categorization would facilitate the assembling your information, and would create a more lucid and pertinent resolution. Be cognizant of the fact that the more analytical and thorough your resolution is, and the more you analyze the topic and break it down, the better results it will produce.

• Suggest realistic and manageable ways to implement
the changes you suggest. Do not forget that everything that is suggested ought to be substantiated through realistic ways of implementation. When you propose a means of solving a particular issue, or when you propose, for instance, the establishment of a committee, you need to clearly elucidate upon this. The more thorough your resolution is, the more effective your points will be.

• A sufficiently researched and well-prepared resolution has to refer to what could the possible effects of weaponization of outer space be, and correlate them to the main concept of prevention of an arms race in outer space. A brief summary of historical examples or other situations which resemble this one can further consolidate the points made and establish the foundations of a good resolution.

• Lastly, the role of the current Commissions or Treaties established and their part in current affairs should be asserted. You must also draw a line between the proposals you make and the role of the current instruments. More specifically, by connecting the current situation as a whole to the prospective future situation, the resolution acquires a case line and increases in strength of evidence. Hence, the brief list of questions that is established and should be answered by a precise and concise resolution is the following:

For countries opposing PAROS
Potential Preambulatory Clauses
• What is defined as arms race?
• What are its potential effects?
• Through which evidence can we draw information about the effects of arms race?
• What do we define as outer space?
• What can be characterized as a space weapon and what is its value?
• What can be inferred from previous conferences and treaties about outer space, and to what extent does it apply to the contemporary society?
• Why is it important that outer space is weaponized?
• What would the beneficial effect be on the global community?

Potential Operative Clauses
• How can prevention a failure?
• What ways are there in order to implement weaponization of outer space and why does this not constitute a danger, based on the use of weapons?
• How will they be financed?
For countries supporting PAROS
Potential Preambulatory Clauses
• What is defined as arms race?
• What are its potential effects?
• Through which evidence can we draw information about the effects of arms race?
• What do we define as outer space?
• What can be characterized as a space weapon and what is its limitation?
• What can be inferred from previous conferences and treaties about outer space, and to what extent does it apply to the contemporary society?
• Why is it important that outer space is safeguarded from weaponization?
• What would the detrimental effect be on the global community?
Potential Operative Clauses
• How can prevention a success?
• What ways are there in order to implement the safeguarding of outer space and why does not doing so constitute a danger, based on the use of weapons?
• How will the monitoring of space or any other measure proposed, be financed?

For countries with a neutral stance about PAROS
Potential Preambulatory Clauses
• What is defined as arms race?
• What are its potential effects?
• Through which evidence can we draw information about the effects of arms race?
• What do we define as outer space?
• What can be characterized as a space weapon and what is its limitation and value?
• What can be inferred from previous conferences and treaties about outer space, and to what extent does it apply to the contemporary society?
• What are the main points about outer space that ought to be safeguarded, if any?
• What would the overall effect be on the global community?
Potential Operative Clauses
• What could be the potential culminations of PAROS?
• To what extent will monitoring activity in space, if any required, be limiting spatial activity?
• How will the monitoring of space or any other measure proposed, be financed? The main issue is that everything that is
stated in your prerambulatory clauses ought to be substantiated or tackled in the operative clauses. Remember that the preamble talks about the situation and the operative clauses specifically suggest what to do about the situation. All of your actions ought to be stated in the operative clauses, and there should be a lucid connection between your preamble and your operative clauses. Self-explanatorily, these questions will comprise the main body of your resolutions. However, you should not hesitate to add to what has been said and integrate parts of your personal investigation.

**Some Links for added information**

**General Assembly documents**
- 2010: [A/RES/65/68](https://www.un.org/assembly/documents/resolutions/65/68), Transparency and confidence-building measures in outer space activities

**CD documents**

- 2009
- 2008
  - Russia-China Draft Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force Against Outer Space Objects
  - US response to the Draft Treaty
- 2007
- 2006
  - Report from the UNIDIR Conference "Building the Architecture for Sustainable Space Security"
  - Space-Based Verification: P axsat A Then and Development Since (Canadian Working Paper)
  - A gap analysis of existing international constraints on weapons and activities applicable to the Prevention of an Arms Race in Outer Space Agenda Item of the Conference on Disarmament (Canadian Working Paper)
* Transparency and Confidence-Building Measures in Outer Space Activities and the Prevention of Placement of Weapons in Outer Space (China and Russia joint working paper)
* Definition Issues Regarding Legal Instruments on the Prevention of the Weaponization of Outer Space (China and Russia joint working paper)
* Existing International Legal Instruments and Prevention of the Weaponization of Outer Space (China and Russia joint working paper)
* Verification Aspects of PAROS (China and Russia joint working paper)

2005

* 21-22 March 2005: "Safeguarding Space Security: Prevention of an Arms Race in Outer Space" (China, Russia, UNIDIR and The Simons Centre for Disarmament and Non-Proliferation Research joint working paper)
* 9 June 2005:"Definition Issues Regarding Legal Instruments on the Prevention of the Weaponization of Outer Space" (China and Russia joint non-paper)

2004

* 25-26 March 2004: "Safeguarding Space for All: Security and Peaceful Uses" (report of workshop)
* 26 August 2004:"Verification Aspects of PAROS" (China and Russia joint non-paper)
* 26 August 2004:"Existing International Legal Instruments and Prevention of the Weaponization of Outer Space" (China and Russia joint non-paper)

2002

* "Possible Elements for a Future International Legal Agreement on the Prevention of the Deployment of Weapons in Outer Space, the Threat or Use of Force Against Outer Space Objects" (China, Russia, Vietnam, Indonesia, Belarus, Zimbabwe and Syria joint working paper)

2001

* Possible Elements of the Future International Legal Instrument on the Prevention of the Weaponization of Outer Space" (China working paper, CD/1645))

2000
China’s Position on and Suggestions for Ways to Address the Issue of Prevention of an Arms Race in Outer Space at the Conference on Disarmament (China working paper, CD/1606) 1999

4 February 1999: (CD/1569), "Canada Proposal concerning CD action on outer space" (Canada working paper) 1998


COPUOS documents
2007: Debris mitigation guidelines
2007: Session report

Government documents
United States
U.S. National Space Policy, 28 June 2010
U.S. National Space Policy, 31 August 2006
Space Preservation Act of 2002
Introduced in the House of Representatives on 23 July 2003, 107th Congress, 2d session, H.R.3616
United States Space Command Vision for 2020
Office of Science and Technology Policy
NASA

United States Strategic Command
1) http://www.stratcom.mil
2) http://www.af.mil/
3) http://www.dtic.mil/futurejointwarfare/
4) http://www.spacecom.af.mil/usspace

Russia

Foreign Minister Igor Ivanov, "Weaponization of Space," speech before the UNGA, 26 September 2001.


European Union

Fifth EU Draft Code of Conduct for Outer Space Activities, 31 March 2014

Fourth EU Draft Code of Conduct for Outer Space Activities, 16 September 2013

Third EU Draft Code of Conduct for Outer Space Activities, 5 June 2012

Second EU Draft Code of Conduct for Outer Space Activities, 27 September 2010

First EU Draft Code of Conduct for Outer Space Activities, 8 December 2008

Introduced to the Conference on Disarmament on 12 February 2009

European Parliament resolution on Space and Security, 10 July 2008


European Space Policy

Canada

Foreign Affairs Canada: Outer Space


AGENDA 2: Controlling the proliferation of modern Weapons
INTRODUCTION
There are currently discussions in a variety of national and international fora about autonomy and weapon systems. Yet governments are unsure of what they need to know in order to make responsible policy choices—and not all agree that specific policy is necessary. As these are early days in international, multilateral engagement on this issue, this paper seeks to help frame further dialogue on autonomy and weapon systems in a way that is both concise and relevant to policy-making, by helping direct attention to key issues and the areas of greatest concern.

The use of future technology for military purposes, such as Electromagnetic pulse (EMP), Space, and Weaponised unmanned systems (WU S) is a growing threat that needs to be tackled urgently. EMP weapons have the potential to create a grave crisis for any technology-dependent civilization, as they mimic the gamma-ray pulse caused by a nuclear blast, and can disable all electronic equipment over a nation’s power grid within a nanosecond of detonation.

Countries such as the USA, Russia and China have already begun developing such weapons. Space is also
becoming increasingly militarized, due to the exponential advancement in aeronautical technology. Anti-satellite weapons, for example, have been developed by the United States, the USSR/Russia, and the People’s Republic of China, and some test firings have been successful in destroying orbiting satellites. Although the majority of space-age technologies are being designed for scientific and exploratory purposes, there can be no doubt that their advancement will be accompanied by far more insidious applications.

Also, challenges concerning the use of weaponized unmanned systems (WUS) – airborne, seaborne or on the ground – have taken the world stage in political and military planning efforts. This trend will continue over the next decade, as these weapon systems have inevitable implications for security and defense strategy among major international actors and smaller actors alike.
Various policy responses have been put forward including a ban on “killer robots”, a moratorium on development of lethal autonomous robots, national self-regulation of development and deployment, and a posture of wait-and-see. However, before embracing one of the available policy responses, many States are still seeking to understand the relevant issues in order to engage constructively in this emerging area.

HISTORY

Why are measures on weaponization of future technologies important?

A significant example of harms caused by weaponised technology is the invention of atomic bomb.
In 1905, as part of his Special Theory of Relativity, Albert Einstein made the intriguing point that a large amount of energy could be released from a small amount of matter.

Leo Szilard, a US based Hungarian émigré, discovered in the 1930s that this 'nuclear fission reaction' can be cascaded into a self-sustaining chain reaction. This made atomic bombs theoretically possible.

At approximately 8.15am on 6 August 1945 a US B-29 bomber dropped an atomic bomb on the Japanese city of Hiroshima, instantly killing around 80,000 people. Three days later, a second bomb was dropped on Nagasaki, causing the deaths of 40,000 more.

Bombings that occurred in Hiroshima and Nagasaki are one of the substantial reasons why there is
need of measures on weaponization of future technologies.

**SCOPE OF DISCUSSION**

Like the splitting of atom; technologies such as EMP, Chemical weapons, Robotic weapons, Space Weapons are likely to play roles in future wars. With any discussion of the ethical issues raised by a given technology, there inevitably arises the question of whether the issues are in fact unique to the technology under discussion or whether they are associated with the technology’s predecessors. Is the —new‖ technology really that novel or is it just an extension of existing and historical technologies?

**PAST UN ACTIONS**

€ Biological Warfare:
The Geneva Protocol-1975: The Geneva Protocol prevents the use of poisonous gases and bacteriological methods of warfare in war. It also provided the basis for both the BWC and the CWC. The Biological Weapons Convention (BWC)-1972: The BWC is the first disarmament treaty banning the development, production, stockpiling, transfer, retention and acquisition of biological and toxin weapons. The Chemical Weapons Convention (CWC)-1992: The CWC provides the elimination of chemical weapons by prohibiting the development, production, acquisition, stockpiling, retention, transfer and use of chemical weapons by member states.

(Please note that there is an overlap between biological and chemical warfare, as the use of toxins for living organisms is considered under provisions of both BWC & CWC)

Conclusion: As for now the BWC includes 163 countries that officially undertook the responsibility to strengthen BW non-proliferation regime; however, the absence of effective verification procedures with the intrusive onsite visit and investigation makes the regime vulnerable to uncontrolled violations.

Cyber Warfare:
Both the United Nations Economic and Social Council (ECOSOC) and the UN’s Department of Economic and Social Affairs (DESA) address issues regarding cyber security and cyber warfare. The ECOSOC’s objective on this matter is to build international awareness of cyber security issues
and influence international policy making. ECOSOC created an intergovernmental expert group on identity-related crime in 2004. Within the ECOSOC is the United Nations Commission on Science and Technology for Development (CSTD); CSTD is aware of the increasing cyber-attacks and emphasizes the need for a new proficient team to combat them. The International Telecommunications Union (ITU) is a UN agency that has been taking the lead role in addressing cyber security and cyber warfare. The ITU set up a high-level expert group that created the cyber security agenda in 2007 and plays a crucial role in combating cybercrime, building capacity, and child online protection with other committees of the UN. Past UN Conventions include, Proposal for cyber weapons convention [www.ccdcoe.org/articles/2010/Geers_CyberWeaponsConvention.pdf](http://www.ccdcoe.org/articles/2010/Geers_CyberWeaponsConvention.pdf) Resolution 211 of 2009 [http://www.un.org/News/Press/docs/2009/ga10907.doc.htm](http://www.un.org/News/Press/docs/2009/ga10907.doc.htm)  

Outer Space:
Outer Space Treaty In 1966 the General Assembly passed the Outer Space Treaty, which delineated specific principles that member nations should abide by regarding militarization of outer space. Its propositions emphasized that the exploration and use of outer space should be carried out with the purpose of benefiting mankind, not individual states.  

Space Preservation Treaty In 2006, the Space Preservation Treaty was proposed by the General Assembly, calling for the ban and removal of all
space weapons. United States was the only country that voted against.
In 2008, the Russian Federation and China submitted a draft known as the Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force against Outer Space Objects (PPWT). The United States opposed the treaty, considering it as a concern for its space assets despite the treaty clearly ensuring a country’s right of self-defense. The United Nations has continuously brought up the issue of space militarization in recent years. Each year in the General Assembly, a resolution regarding the prevention of an arms race in outer space (PAROS) is introduced, and signed by member nations.

Also known as the Outer Space Committee, the UN Committee on Peaceful Uses of Outer Space (COPUOS) was established in 1959 by the General Assembly in resolution 1472 (XIV) with the purpose of reviewing international cooperation and creating UN programs that would further stabilize the issues related to the use of outer space.

**Nuclear warfare:**

In 1968, the Nuclear Non-Proliferation Treaty (NPT) was signed. It currently comprises 189 signatory countries, among them the Big Five, the collective name for the five countries that are recognized by the NPT to legally harbor nuclear weapons. Countries noticeably absent from the NPT include Pakistan, Israel, India, and Iran, which harbor, claim to harbor, or have sought to obtain nuclear weapons and technology. Also notably
absent from the NPT is North Korea, which was formerly a member but later absconded and is currently suspected of possessing or researching nuclear weapons and technology. The watchdog of the NPT is the IAEA, or International Atomic Energy Agency, which was established independently of the UN by the IAEA Statute. The IAEA works with the General Assembly, Security Council, and signatory countries through its regular inspections program to promote the peaceful use of nuclear energy and deter the military use of nuclear power. Although the IAEA works closely with the UN, the IAEA is an autonomous organization.

The international community has taken other actions to promote non-proliferation. In 1973, the United States and the Soviet Union began the Strategic Arms Limitation Talks (SALT) that led to a bilateral Anti-Ballistic Missile Treaty, which limited each party to 100 anti-ballistic missiles and two anti-ballistic missile production facilities. The treaty was in force until June 2002, when the United States withdrew. In 1993 the Strategic Arms Reduction Treaty (START) continued on the foundation that SALT built. Another bilateral agreement between Russia and the United States, the treaty put hard limits on the number of multiple independently targetable re-entry vehicles, or MIRVs (An MIRV is a type of missile capable of releasing multiple warheads at multiple, independent targets, essentially allowing one missile to wipe out three or more missile silos). In 1996, the Comprehensive Nuclear Test Ban Treaty (CTBT) was adopted by the UN General Assembly.
It strengthened the NPT by prohibiting the development and testing of nuclear weapons, in any environment, for either military or civilian purposes. Also, over the past 50 years, many regions have established nuclear weapons free zones (NWFZs), which prohibit all countries and territories in that zone from possessing or utilizing nuclear weapons and sometimes nuclear technology, such as nuclear power or nuclear waste. These regions notably include territories of nuclear powered states, such as the British Virgin Islands, which exists in a NWFZ and abides by its rules, even though its protectorate, the UK, is a nuclear power. In 2004, Resolution 1540 was adopted by the United Nations Security Council. This resolution bound all member nations to prevent the spread of weapons of mass destruction by any means necessary. The Security Council has utilized UNCS 1540 to deter members and non-member nations from proliferation nuclear materials or using nuclear weapons. The resolution also pushed its members to prevent the unsafe distribution or acquisition of fissile materials by establish an international set of standards related to nuclear safety and security. In 2009, Resolution 1874 was passed by the Security Council as a reaction to a nuclear test by the Democratic People’s Republic of Korea. The resolution essentially reiterated the points of UNCS 1540, as well as urging the cooperation of the international community in preventing the spread of nuclear weapons and technology, pushing for a more rigorous framework under which to test nuclear facilities for NPT compliance, and most
importantly, reinforcing the solidarity of the international community in their stance against nuclear proliferation.

Questions a resolution must answer:

- What systems does your country currently employ to actively discourage non-state parties from obtaining nuclear technology or weaponry?
- How can the international community enforce the NPT on non-signatory nations?
- What effect has the NPT had on your country?
  - What would be common interest of the "superpower" nations that already have the ability to weaponized space and the nations who don’t?
  - What are the rights of nations regarding self-defense from possible attack from a weapon located in space?
  - Is the claim of self-defense a legitimate claim to have while legitimizing the weaponization of space?
  - What loophole in space law could be closed? What scenarios could be prevented or achieved by updating space law?
  - Should the classification of WMD’s change?
  - When, if ever, is it acceptable to use drones to attack specific targets in another nation outside the time of war?
  - How might the manufacture and sale of drones be regulated and if so, does it need to be regulated?
  - What should be the UN’s role towards the restriction on the use of UAVs? May they only be employed during UN mandated operations?
  - How can the peaceful use of drones be protected while prohibiting the unlawful use of drones?