8th BURAK BORA ANATOLIAN HIGH SCHOOL
MODEL UNITED NATIONS CONFERENCE 2026

F-DISEC

STUDY GUIDE AND RULES OF PROCEDURE

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Dear Participants of BBALMUN'26 Conference,

As FDISEC Under Secretary General , I am very happy to invite you all to witness Burak Bora Anatolian School Model United Nations Conference.

I am very excited and honored to present to you the committee and conference that we tried to do the best. As BBALMUN team, we will make sure that these three days in this conference will be an unforgettable memory where you can have fun while discussing and learning important global issues. This study guide contains information that will help you understand the subject and determine the topics to be discussed. I hope you will use this information to find the most

accurate solutions to the problems. I would firstly like to thank my lovely acas Nur Sima, then my friends who have always been with me through thick and thin, and the entire bbalmun academy team for supporting and helping me in this journey as much as they could.

If you have any questions about the study guide, committee, conference or anything else, please do not hesitate to contact me. I would be happy to answer any questions you may have or explain anything you would like.

With my best regards,

Asya GÜÇLÜ

Under Secratary General of Futuristic Disarmament and International Security Committee

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Welcome Letter From the Academic Assistant

The Dearest Participants of BBALMUN'26 Conference,

As the academic assistant of the F-DISEC , I am glad to welcome you all to our committee. It's a great honor to be a part of the BBALMUN academic team this year, and we are looking forward to experience the best three days with you. Through this year, we have worked tirelessly to provide you with the best possible conference experience, we hope you will both enjoy this journey and contribute to thoughtful discussions that lead to effective solutions for global issues. Firstly, I would like to thank my dear usg Asya for everything she's done, then my fellow academic assistants Yağmur and Elif for helping me in every possible way.

I sincerely hope this study guide will be helpful in your preparation and if you have any questions about the study guide, please do not hesitate to contact me.

Best regards,

Nur Sima Özkan

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2. RULES OF PROCEDURE

2.1 General Rules

Article 1: Scope

The rules included in this guide apply to all committees of the General Assembly and the Security

Council. The Rules of Procedure for Crisis and the Parliamentary Assembly are entirely at the discretion of the Academic Team or the Secretariat. Only the rules mentioned within this document and the United Nations (hereinafter referred to as UN) Charter are applicable throughout the Conference. In the case of a contradiction between the two documents, Rules of Procedure shall hold precedence. At the discretion of the Academic Team or Secretariat, these rules can be modified to better facilitate healthy debate, and any modification of the rules will be announced clearly to the entirety of the committee and will take precedence over any rules written in this document.

Article 2: Language

English will be the official and working language of the conference. Delegates may not carry out any activities relevant to their committees in any language other than English, which includes discussing committee topics in an unmoderated caucus or by the means of message papers.

Article 3: Representation

Members in a conference represent the delegates of appointed countries and they are expected to proceed in this way. All the members have one right to vote as the delegates of the countries they are given.

Article 4: Credentials

All delegates have certain rights which they obtain by an approved registration. They will have to need permission from the Secretary-General to acquire any kind of privilege. Otherwise, they will have the same fundamental rights as the other delegates. Each and every delegate will be given the same rights unless some extremities that may have occurred. In such cases, the delegate will have temporary rights until the Secretary-General decides on what to do.

Article 5: General Powers of the Secretariat

The Secretary-General or a member of the Secretariat designated by them can modify rules to better facilitate healthy debate, and any modification of the rules will be announced clearly to the entirety of the related participants and will take precedence over any rules written in this document. Under Secretary Generals, at the discretion of the Secretariat, can exercise similar powers inside their allocated committees and they also exercise authority over other members of the Committee Staff. The Secretary-General or a member of the Secretariat designated by him/her also reserves the right to issue official warnings to delegates or organisational members inside the committee who interrupt the flow of the debate and fail to follow the rules of procedure regarding language, courtesy, dress code, and delegate conduct. After a delegate receives several official warnings which may result in dismissal without a certificate and compensation.

Article 6: Statements by the Secretariat

The Secretary-General or a member of the Secretariat designated by him/her reserves the right to make either written or oral statements to the Committee at any time. Delegates should expect

to receive an address from the relevant Under-Secretary-General for their committee, either of the General Assembly, the Security Council or Parliamentary Assembly, or Crisis Committees, at least once per day for committee feedback and announcements.

Article 7: General Powers of the Committee Staff

The Committee Staff –also known as Dais- includes, by order of precedence, the Under-Secretaries General, Presidents of GA, Committee Chair, Academic Assistants, and Crisis Members. Each Committee session will be announced open and closed by the Committee Chair, who may also propose the adoption of any procedural motion to which there is no significant objection. The Chair, subject to these rules and at the discretion of their Under-Secretary General or President of GA, will have complete control of the proceedings at any meeting. The Chair will direct the flow of debate, grant the right to speak, ask questions, announce decisions, rule on points of order, and enforce adherence to these rules. If necessary and given no objections from their superiors, the Committee Chair may choose to suspend the rules to clarify a certain substantive or procedural issue. The Committee Chair also has the right to interrupt the flow of debate to show a presentation about the committee. The Chair can choose to temporarily transfer his or her duties to another member of the Committee Dais staff. Committee Dais staff members may also advise delegations on the possible course of debate. Further, the Chair reserves the right to administer unofficial warnings to delegates or organisational members inside the committee who interrupt the flow of the debate and fail to follow the rules of procedure regarding language, courtesy, dress code, and delegate conduct. After a delegate receives several unofficial warnings, the Chair has the right to consult the Secretariat to issue an official warning, which may result in dismissal without a certificate and compensation. In the exercise of these functions, the Committee Dais staff will be at all times subject to these rules and responsible to the Secretary-General.

Article 8: Courtesy

Every delegate will be courteous and respectful to the Committee staff and other delegates. The Chair will immediately call to order any delegate who does not abide by this rule and may issue an unofficial warning. Any delegate who feels that he or she is not being treated respectfully is encouraged to speak to the Chair, who will then take the appropriate action.

Article 9: Delegate Conduct

Delegates are expected to use formal English in their speeches. This includes abstaining from using slang or profanity. Delegates are also warned that BBALMUN has a zero-tolerance policy for hate speech, slandering, disparaging, or acting in any other way that is inflammatory to other delegates. Neither speeches nor debates with other delegates may contain remarks of this nature. Those delegates who believe that their countries' policies merit such conduct are advised to consult the Chair before taking any action. Crosstalking and the usage of electronic devices are out of order for delegates. Electronic devices can only be used for research purposes during unmoderated caucuses. Delegates can not eat or drink anything other than water. Delegates shall stay seated during sessions unless it is an unmoderated caucus, or they have the floor, or they have been specifically authorised by the Chair to leave their seat. Delegates may use message papers to communicate with members of the committee. Message papers can contain

messages to other delegates and procedural or personal requests from the Chair. Message papers that do not abide by the Rules of Procedure can be exterminated by the Chair.

Article 10: Dress Code

The delegates are expected to be dressed according to the western business attire for all sessions. Failure to follow the dress code shall result in an official warning by the Secretariat and may result in dismissal without a certificate and compensation.

Article 11: Absences

Delegates are expected to be present at the beginning of the sessions. If a delegate is not present during roll call, he or she is considered absent until a note is sent to the dais staff. A delegate who is recognized but is not present when called upon yields his or her time to the Chair, and debate shall continue unabated. Abstaining from three or more sessions may result in dismissal without a certificate and compensation. However, delegates can consult their committee staff to inform them about a planned absence from the committee. Which then can be exempt from being regarded as an absence at the discretion of the Chair.

Article 12: Awards

After the adjournment of the debate, The Committee Staff may give out rewards to delegates who showed exemplary behaviour and performance. Possible awards are, by order of precedence, Best Delegate Award, Outstanding Delegate Award, and Honourable Mentions. The awards are distributed during the closing ceremony of the conference. Only the first two award degrees shall include certificates and require the delegates to attend the stage. The amount and allocation of rewards to delegates can vary in accordance with the size and performance of the committee, and ultimately to the judgement of the Committee Staff. Delegates who suspect the judgement of their Committee Staff involving the award allocations can discreetly contact their Under Secretary Generals, which then will report the complaint directly to the Secretariat, who will take the necessary actions.

2.2. Rules Governing Debate

Article 1: Quorum

Quorum is the minimum number of delegates who need to be present to open debate. When at least one-quarter of the members of the Committee (as declared at the beginning of the first session) are present, the quorum is met, and the Chair declares a Committee open to proceed with debate. A quorum will be assumed to be present unless specifically challenged and shown to be absent. A roll call is never required to determine the presence of a quorum. However, The Chair will entertain role calls at the beginning of the sessions to facilitate debate. To vote on any substantive motion, the Committee must establish the presence of a simple majority of members.

Article 2: Opening Speeches

Delegates are required to present their opening speeches before setting the debate. The Chair will present the floor to delegates by following the alphabetical order of the names of the members.

Article 3: Agenda

The Agenda decides the order in which the topics will be discussed in the committee. Therefore, the first matter the Committee decides on will be setting the agenda. The delegates are expected to raise a motion to set the agenda. This motion requires a second. If there happens to be no opposition to the motion, it is considered to be adopted. If there is opposition, the committee directors will establish a Speaker's List which consists of 2 or 4 delegates to give for and against speeches. After the speeches, the committee will proceed with the voting.

Article 4: Debate

Setting the Agenda is followed by a motion to open debate. This motion is not debatable and requires a simple majority to pass. A motion to open debate, if it passes, results in the opening of a new, continuous Speakers List, which is used to conduct a general debate. This Speakers List will decide the order of speakers for the entire debate on the Topic Area, except when superseded by procedural motions, amendments, or the introduction of a draft resolution.

Article 5: Speakers List

The Committee shall at all times have an open Speakers' List for the Topic Area being discussed. However, the Speakers' List needs to contain the names of several members otherwise the debate shall be terminated. The Chair will either set a speaking time or entertain motions to set a speaking time. A member may add their name to the Speakers' List by submitting a request in writing to the Chair or any time the Chair calls for members that wish to be added to the Speakers' List. Members may not add their name to the Speakers' List while already being registered to it, and may remove their name from the Speakers' List by submitting a request in writing to the Chair.

Article 6: Yields and the Floor

The Chair may offer the floor to delegates during several procedures like opening speeches, the Speakers' List, the introduction of resolutions, and against/in favour speeches. A delegate who has the floor shall address the committee from a lectern that can be assigned by the Chair. The floor belongs to the Committee Staff at all times and can only be lent to delegates by the Chair. A delegate who has the floor and a remaining time after their speech may yield their time or the floor to another delegate in the following ways;

A: Yield to another delegate: His or her remaining time will be offered to that delegate. If the delegate accepts the yield, the Chair shall recognize the delegate for the remaining time to inquiries.

B: Yield to inquiries / Open themselves any kinds of points: Questioners/Point raisers will be selected by the Chair and limited to one question each unless they give a motion to follow up. Only the speaker's answers to questions will be counted against the speaking time.

C: Yield the floor: Such a yield should be made if the delegate wishes their speech to end. The Chair will then resume their ownership of the floor.

Article 7: Right of Reply

A delegate whose personal or national integrity has been impugned by another delegate may submit a Right of Reply only in writing to the Committee staff. A Right of Reply to a Right of Reply is out of order.

Article 8: Moderated Caucus

The purpose of a moderated caucus is to facilitate substantive debate at critical junctures in the discussion. The delegate making the motion must briefly explain its purpose and specify a time limit for the caucus, not to exceed twenty minutes, and a time limit for the individual speeches. In the case of multiple moderated caucuses, the Chair will rank the motions in descending order of length. Moderated caucuses of the same length will be ranked in descending order of individual speaking time. Moderated caucuses that differ only in terms of topic will be ranked in the same order that they were proposed. While in a moderated caucus, delegates do not possess the floor and are not subject to the rules regarding yields. Therefore, they can not leave their seats and can only address the committee while standing up. A delegate who has been recognized to speak during a moderated caucus can and will be ruled out of order if the delegate's speech does not address the topic of the moderated caucus. If no delegate wishes to speak during a moderated caucus, the caucus may be terminated by a motion. A moderated caucus may be extended only once, but only after the caucus has ended and provided that the length of an extension does not exceed the previous motion.

Article 9: Un-Moderated Caucus

A delegate may raise a motion for an unmoderated caucus after at least one moderated caucus followed by a speech from the Speakers' List was held, while the floor is open, before the closure of debate. The delegate making the motion must specify a time limit for the caucus, not to exceed twenty minutes. The motion will immediately be put to a vote and will pass given a simple majority. During the unmoderated caucuses, delegates are not required to be seated, can talk directly with each other, and may only work towards the preparation of committee documents. An unmoderated caucus can be extended only once, and the length of an extension may not exceed the previous motion.

Article 10: Closure of Debate

When the floor is open, a delegate may move to close debate on the substantive or procedural matter under discussion. When the closure of the debate is moved, the Committee Chair will ask the delegates if there are any objections to voting by unanimous consent. If there are no objections, the motion to close the debate will automatically be adopted and the Committee will

move immediately to the substantive voting procedure.

Article 11: Suspension or Adjournment of the Meeting

In the last 5 minutes of parliamentary sessions, delegates are expected to raise a motion to suspend the meeting. When in order, such motions will not be debatable but will be immediately voted upon, barring any motions taking precedence, and will require a simple majority to pass. In the last thirty minutes of the last session, delegates can raise a motion to adjourn the meeting. When the meeting is adjourned, all committee functions will be postponed or terminated for the duration of the conference.

Article 12: Reconsideration

A motion to reconsider a draft resolution is in order when a draft resolution or amendment has been adopted or rejected and must be made by a member who voted with the majority on the substantive proposal. The Chair will recognize up to two speakers opposing the motion after which the motion will be immediately voted upon. A two-thirds majority of the members present is required for reconsideration. If the motion passes, the Committee will immediately vote again on the draft resolution or amendment being reconsidered without further debate.

2.3. Rules Governing Points

Article 1: Points of Personal Privilege

Whenever a delegate experiences personal discomfort, he or she may rise to a Point of Personal Privilege to request that the discomfort be corrected. A Point of Personal Privilege may only interrupt a speaker if the delegate speaking is inaudible.

Article 2: Points of Order

At any point when a committee is in session, a delegate may rise to a Point of Order for expressing his or her belief that the rules of procedure are not being followed. The Point of Order will be immediately decided by the Chair in accordance with these rules of procedure. A Point of Order may never interrupt a speaker.

Article 3: Points of Parliamentary Inquiry

When the floor is open, a delegate may rise to a Point of Parliamentary Inquiry to ask the Chair a question regarding the rules of procedure. A Point of Parliamentary Inquiry may never interrupt a speaker.

Article 4: Points of Information

Points regarding issues rather than parliamentary procedure and that are not covered in the

rules governing other points shall be asked to the Committee Director as a Point of Information. A point of information cannot interrupt a speaker.

2.4. Rules Governing Committee Documents

Article 1: Working Papers

Delegates may propose working papers for Committee consideration. Working papers are intended to aid the Committee in its discussion and formulation of draft resolutions and need not be written in draft resolution format. Working papers are not official documents and may be presented in any format approved by the Chair. Working papers do not require signatories or votes of approval. Working papers are not introduced by motion.

Article 2: Draft Resolutions

A draft resolution is the improved version of a working paper with formal procedures and may only include topics that have been discussed during previous moderated caucuses. A draft resolution must include the heading, the pre-ambulatory clauses, and the operative clauses. The heading contains the committee's name, topic, Sponsors, and Signatories of the draft resolution. The heading has to begin with the name of the UN committee that adopts the resolution. The pre-ambulatory clauses need to recall the previous actions and explain why the committee needs to pay attention to these matters. All the preambulatory clauses have to start with preambulatory phrases such as "Alarmed by " or "Guided by " and you can not use the same phrase again. Also, all the pre-ambulatory clauses have to finish with a comma so they can sound like a long sentence. And lastly the operative clauses, The purpose of operative clauses is to provide and to forward the solutions that you found in the committee's past process with an official language. The operative clauses should address the issues specifically mentioned in the pre-ambulatory clauses above it. Just like the pre-ambulatory clauses, operative clauses also have to start with operative phrases like "Calls for" or " Deplores". Besides, you can not use the same phrase and need to add a semicolon except for the last one which needs to end with a comma. A draft resolution may be introduced to the Secretariat when it receives the approval of the Chair and the signature of at least one-fifth of the present Member States. Signing a draft resolution need not indicate support of the draft resolution, and the signatory has no further rights or obligations. Signing a draft resolution only indicates a desire for the draft resolution to be discussed in Committee. There are no official sponsors of draft resolutions. Signatories should be listed in alphabetical order on every draft resolution. A draft resolution requires a simple majority of members present to pass.

Article 3: Introduction of Draft Resolutions

Once a draft resolution has been approved, a delegate or delegates may move to introduce the draft resolution. Each motion will specify one draft resolution to introduce. A procedural vote is then taken to determine whether the resolution shall be introduced. Should the motion receive the simple majority required to pass, the draft resolution will be considered introduced and on the floor. The Chair, at his or her discretion, may allow a brief presentation of the resolution in a manner determined by the Chair and/or open the floor for speeches that are for or against the introduced draft resolution. More than one draft resolution may be on the floor at any one time.

Debate on draft resolutions proceeds according to the general Speakers' List for that Topic Area and delegates may then refer to the draft resolution by its designated number.

Article 4: Amendments

Delegates may amend any draft resolution that has been introduced by adding to, inserting into, deleting from, or revising parts of it. Only one amendment may be introduced at any given time. Amendments to amendments are out of order; however, an amended part of a draft resolution may be further amended. A motion to introduce an approved amendment may be made when the floor is open. After this motion, the Chair may read the amendment aloud, time permitting. A Speakers List will be established for and against the amendment. The motion will pass by a simple majority.

2.5. Rules Governing Voting

Article 1: Procedural Voting

Voting on any matter other than draft resolutions and amendments is considered procedural. No abstentions shall be allowed in procedural votes. A simple majority shall be considered achieved when there are more "Yes" votes than "No" votes. If the counted vote is less than the number of Delegates present; the Committee Directors shall take the vote repetitively until the number is met.

Article 2: Substantive Voting

Substantive voting includes voting on draft resolutions and amendments. Once the committee closes the debate on the general Topic Area, it will move into substantive voting procedures on resolutions. At this time, the chambers are sealed, and no interruptions will be allowed. For substantive voting, each member will have one vote. Each vote may be a 'Yes,' 'No,' or 'Abstain.' Abstaining members are not considered to be voting, and are subtracted from the quorum to calculate a simple majority. All matters will be voted upon by a show of placards unless a motion for a roll call vote is accepted. Once any Resolution has been passed, the voting procedure is closed, as only one Resolution may be passed per Topic Area.

Article 3: Voting by Acclamation

The Committee Directors may ask if there are any objections to passing the matter by acclamation, just before votes involving procedural voting. Any objection will be seen as a request for a vote.

Article 4: Roll Call Voting

A delegate has the right to request a roll call vote after debate on a draft resolution is closed or for any other substantive vote. A roll call vote is only for substantive votes. In the first sequence, delegates may vote "Yes," "Yes with Rights", "No," "No with Rights", "Abstain," or "Pass." Delegates

who vote either “Yes with Rights” or “No with Rights” reserve the right to explain their vote only when the delegate is voting against the policy of his/her country. The delegate will only be allowed to explain an affirmative or negative vote, not an abstention from voting. All delegates who had requested the right of explanation will be granted time to explain their votes. The speaking time will be set at the discretion of the Chair, not to exceed thirty seconds.

2.6. Precedence of Motions

Points shall always entertain a priority over motions. The precedence of points is as follows:

- Point of Personal Privilege
- Point of Order
- Point of Parliamentary Inquiry
- Point of Information
- Motions will be considered in the following order of precedence:
- Motion to Adjourn the Meeting
- Motion to Suspend the Meeting
- Motion to Close the Debate
- Motion to Postpone the Debate
- Motion to Resume the Debate
- Motion for Reconsideration
- Motion to Reorder the Resolution
- Motion for a Roll Call Vote
- Motion to Introduce Draft Resolution
- Motion to Introduce Amendment
- Motion to Extend the Previous Caucus
- Motion to Unmoderated Caucus
- Motion to Moderated Caucus

2.7. Important Note

Please only raise your placard once the Chair has finished speaking, and only when the Chair calls for speakers or if a Point/Motion needs to be made.

INTRODUCTION TO THE COMMITTEE

The Disarmament and International Security Committee (DISEC) is the first Committee of the United Nations General Assembly. DISEC was set up to promote global peace and security and gives countries a space to discuss important issues that affect everyone. The committee focuses on security and disarmament across all regions, making sure that people everywhere are

protected from conflicts and threats. Following the UN Charter, DISEC works on developing ways for countries to cooperate, maintain stability, and prevent the spread of weapons. It also encourages collective efforts to reduce armaments, resolve global security challenges, and build lasting peace. By bringing nations together, the committee plays a key role in shaping rules and agreements that help keep the world safer for everyone.

In today's world, where technological advancements and geopolitical tensions continue to introduce new and complex threats, DISEC plays a critical role in addressing challenges. These include nuclear proliferation, the use of chemical and biological weapons, arms trafficking, cyberwarfare, and the weaponization of artificial intelligence. As these threats evolve, DISEC provides a global platform for nations to work together peacefully and constructively. Through open dialogue and collaboration, the committee aims to find sustainable solutions that strengthen international security and uphold global stability.

AGENDA ITEM:PREVENTING THE MILITARIZATION OF SPACE AND SAFEGUARDİNG PEACE BEYOND EARTH

INTRODUCTION TO THE AGENDA ITEM

Space has long been a stage for geopolitical competition, but in recent years it has evolved into a new frontier for global power and influence. As humanity becomes increasingly dependent on outer space for technological, economic, and security purposes, the question is no longer whether we can reach beyond Earth—but how we will choose to govern and protect it. Satellites now sustain critical aspects of modern life: from communication, navigation, and environmental monitoring to global trade and disaster prevention. Because we depend so heavily on these systems, any disruption in space assets could seriously affect how societies and economies function across the world.

However, this growing dependence also brings with it unprecedented risks. The same technologies that unite the world can just as easily be used to divide it. Militaries across the globe have become reliant on satellites to monitor troop movements, detect missile launches, and coordinate defense operations. Such

developments blur the line between peaceful exploration and military exploitation, threatening to transform outer space into yet another theatre of conflict. Any disruption—whether accidental or deliberate—could have devastating consequences on Earth, undermining both national security and human welfare.

The agenda aims to address the ethical, geopolitical, and human rights dimensions of space militarization. Delegates will explore how the growing weaponization of outer space challenges international law, global equality, and the principle of peaceful cooperation beyond Earth. Together, we aim to develop strategies that prevent conflict, promote transparency, and ensure that outer space remains a domain dedicated to peace, shared progress, and the collective advancement of humanity.

KEY VOCABULARY

COPUOS

Amid the Cold War there was a growing concern about outer space becoming a new stage for geopolitical competition and a frontier for global power. In 1958, shortly after launching the first artificial satellite, the General Assembly resolved to set up an ad hoc Committee on the Peaceful Uses of Outer Space (COPUOS) to examine space-related activities that could be undertaken by the United Nations ,its specialized agencies, and other international organizations, while also developing arrangements to strengthen international cooperation in the peaceful use of outer space. In 1959, the General Assembly made it a permanent institution, which included 24 members at time, and its mandate reaffirmed under resolution 1472. The committee played a key role in developing five main treaties and principles governing outer space.

CD

The Conference on Disarmament (CD) is the main multilateral forum of the international community for negotiating disarmament and arms control agreements. It is based at the Palais des Nations in Geneva and meets annually in three separate sessions.

The CD was first established in 1979 as the Committee on Disarmament and was renamed the Conference on Disarmament in 1984. Since then, it has played an important role in international peace and security by providing states with a platform to discuss and negotiate arms control measures.

The Conference and its predecessor organizations helped negotiate several major international treaties, including the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the Biological Weapons Convention, the Chemical Weapons Convention, and the Comprehensive Nuclear-Test-Ban Treaty (CTBT). These agreements remain some of the most important achievements in global disarmament efforts.

UN-SPIDER

United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) is a programme established by the United Nations General Assembly to ensure that all countries and international and regional organizations have access to and develop the capacity to use space-based information throughout the entire disaster management cycle.

Operating under the United Nations Office for Outer Space Affairs (UNOOSA), UN-SPIDER supports disaster risk management and emergency response by promoting the use of satellite technology, remote sensing, and other space-based tools. Unlike previous initiatives, UN-SPIDER focuses not only on emergency response but also on disaster prevention, and risk reduction, helping reduce the loss of lives and property during natural disasters.

ITU

The International Telecommunication Union (ITU) is a specialized agency of the United Nations responsible for information and communication technologies (ICTs). Established in 1865 as the International Telegraph Union, it is the oldest agency in the UN system and is headquartered in Geneva.

The ITU works to facilitate international communication by allocating global radio spectrum and satellite orbits, developing technical standards, and improving access to digital technologies worldwide. It also promotes international

cooperation in telecommunications and space-based communications systems. Because satellites and communication networks are essential for both civilian and military activities in space, the ITU plays an important role in maintaining cooperation, preventing interference, and supporting the peaceful use of outer space.

UNOOSA

The United Nations Office for Outer Space Affairs is an office of the United Nations Secretariat that promotes international cooperation in the peaceful use of outer space. It supports the use of space science and technology for sustainable development and helps countries, especially developing ones, access space-based tools.

UNOOSA also assists states in creating legal and regulatory frameworks for space activities and works to ensure that outer space remains used for peaceful purposes. It was originally created in 1958 to support UN efforts on the peaceful uses of outer space.

ABM Systems

Antiballistic missile (ABM) systems are defense systems designed to detect, track, and intercept incoming ballistic missiles, including intercontinental ballistic missiles (ICBMs). They use early warning systems and interceptor missiles to destroy or neutralize threats during flight, either through explosive impact or “hit-to-kill” methods.

ABM systems include short-range defenses against shorter-range missiles and strategic systems aimed at long-range ICBMs. While they cannot fully prevent nuclear conflict, they provide limited protection and have been an important part of arms control and security discussions.

ICBM

An intercontinental ballistic missile (ICBM) is a long-range missile with a range of over 5,500 km, mainly designed to deliver nuclear warheads between continents.

It travels on a high, curved path, often reaching space, before coming back down to its target.

ICBMs were first used in the late 1950s, starting with the Soviet Union and then the United States. Today, several countries that have nuclear weapons also have operational ICBMs, and they are mainly used as a way to show military strength.

SLBM

A submarine-launched ballistic missile (SLBM) is a ballistic missile launched from submarines, mainly used to carry nuclear warheads. Because submarines are hard to detect, SLBMs provide a secure and hidden missile capability.

Many SLBMs can carry multiple warheads that can hit different targets, and they use inertial navigation, sometimes combined with celestial navigation, for guidance. SLBMs are one of the main parts of a country's nuclear forces, giving it a strong and reliable sea-based strike ability.

MIRV

A multiple independently targetable reentry vehicle (MIRV) is a ballistic missile payload that allows a single missile to carry and deliver multiple nuclear warheads, each aimed at a different target. It is used on both intercontinental ballistic missiles (ICBMs) and submarine-launched ballistic missiles (SLBMs).

MIRVs are different from multiple reentry vehicles (MRVs), which release several warheads but only toward one target. Because MIRVs can hit several targets at once, they are mainly used by advanced nuclear powers. Most nuclear-armed countries except a few have developed or deployed MIRV systems, and they are commonly associated with long-range ballistic missiles carrying nuclear weapons.

Weapons of Mass Destruction (WMD)

A weapon of mass destruction (WMD) is any weapon designed to cause large-scale death, injury, or destruction to people, property, or the environment. WMDs are usually classified into four main types: chemical, biological, radiological, and nuclear (CBRN).

Chemical weapons use toxic agents such as nerve gas or mustard gas to poison or harm large populations. Biological weapons spread disease-causing organisms or toxins, such as anthrax or smallpox. Radiological weapons, often called “dirty bombs,” spread radioactive material to an area to cause fear and long-term health problems. Nuclear weapons are the most powerful type, using nuclear energy to destroy entire cities and cause long-lasting damage.

The term WMD focuses on the intent to cause mass harm, while CBRN refers to the type of material used, whether intentional or accidental. Protection against these threats is known as CBRN defence, which includes measures to prevent, respond to, and reduce the impact of such weapons.

Space Debris

Space debris, also known as space junk, refers to human-made objects in space that no longer function or serve any purpose. It includes inactive satellites, used rocket stages, and fragments created by collisions, explosions, or damaged spacecraft.

These objects orbit Earth at very high speeds and can damage satellites, spacecraft, and other space systems. Space debris is mainly found in Earth’s orbit and has become an important issue with the increasing number of space activities and satellite launches.

BACKGROUND

Cold War

The militarization of space during the Cold War created serious concerns regarding the preservation of international peace and security. The Cold War was a period of geopolitical and ideological rivalry after World War II between the United States (US) and Soviet Union (USSR) and their allies,lasting from the late 1940s to 1991.

This period of geopolitical rivalry extended beyond Earth, as both superpowers believed space could be weaponized and used to gain a strategic advantage for

any conflict erupted between them. However, neither the United States nor the Soviet Union could proceed with deploying orbital weapons or developing space-based weapons without risking their own national security or provoking a potential nuclear conflict. While both superpowers acknowledged the significance of maintaining the demilitarization of outer space, their persistent strategic rivalry necessitated the establishment of formal international agreements. The progression of military technologies in space during the Cold War emphasized the importance of creating rules and strategic frameworks to manage outer space activities. These tensions prompted countries to take steps to stop weaponization of space, thereby safeguarding global peace.

Outer Space Treaty

The Outer Space Treaty, formally known as the “Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies,” entered into force on October 10, 1967. The treaty was largely driven by the shared international vision of a demilitarized outer space, committing its parties to use outer space solely for peaceful purposes.

In the context of the Cold War, the United States and the Soviet Union raced to develop advanced rockets and nuclear arms, even carrying out nuclear tests in outer space. This Cold War rivalry was one factor that contributed to the creation of the treaty. Another contributing factor was the space race, which was built upon rocket technology originating from World War II. This technology had the potential to support peaceful space exploration while also serving as a delivery system for space based weapons of mass destruction. In 1966, US Ambassador Arthur J. Goldberg addressed the General Assembly at the United Nations, aiming to promote the treaty and the peaceful utilization of outer space. The following year he stated how beneficial this would be and thanked the President "for initiating this effort on behalf of our country" (Goldberg). Within his "Special Message to the Senate on Transmitting the Treaty on Outer Space", President Lyndon B. Johnson highlighted: "if we fail now to apply the lessons we have learned, or even if we delay their application, we know that the advances into space may only mean adding a new dimension to warfare" (Johnson). Johnson

emphasizes the treaty's crucial role in preventing potential conflicts in outer space – notably within the framework of the Cold War.

Limited Test Ban Treaty

Limited Test Ban Treaty, formally known as the "International agreement to halt nuclear test explosions in the atmosphere, under the sea, and in outer space ", opened for signature on August 5, 1963, the treaty banned nuclear tests or any other nuclear explosion in the atmosphere, outer space and underwater, although underground testing was not explicitly banned.

Amid the Cold War, both superpowers were committed to achieving or preserving nuclear superiority. The Soviet Union launched the first human-made satellite in 1957, when the space race was at the forefront. With this success, the Soviet Union won the first stage of the space race and established the possibility of human-made objects orbiting the planet. Promptly led to the launch of the first U.S. satellite. While both superpowers were working to improve more advanced nuclear technology, they carried out multiple nuclear test explosions. As the United States, Soviet Union and United Kingdom carried out atmospheric nuclear tests, the international community grew increasingly concerned about the risks of the radioactive fallout on civilian health. After that, the Limited Test Ban Treaty was signed by the United States, Soviet Union and Great Britain. This treaty also represented a major milestone in international diplomacy during the Cold War, promoting dialogue between the United States and the Soviet Union and assisting in the deescalation of tensions

Moon Agreement

The idea of utilizing natural resources and mining settlements on the Moon or near-Earth asteroids has become a prominent subject of international consideration. Moon Agreement, formally known as the Agreement Governing the Activities of States on the Moon and other Celestial Bodies, was drafted to directly address the emerging possibility and to establish a universally accepted legal framework for this stage of space activity and to prevent it from becoming a source of international conflict. It was opened for signature on December 18, 1979.

The Moon Agreement reiterates the principles in the Outer Space Treaty. For instance, both in the Moon Agreement and the Outer Space Treaty, the prohibition of the military uses of outer space is provided. The Moon Agreement, prohibits the use or threat of use of force, or any other hostile action or threat of hostile action on the Moon, which is reserved exclusively for peaceful activities. It also prohibits the use of the Moon in order to commit any hostile act or to engage in any such threat in relation to the Earth, the Moon, spacecraft, the personnel of spacecraft, or man-made space objects. (Article 3 of the Moon Agreement.) Nevertheless, most states did not ratify the agreement, as it would have expanded their obligations and responsibilities toward the Moon and other celestial bodies. This is particularly the case for the provision declaring the Moon as the "common heritage of mankind."

Rescue Agreement

Rescue Agreement, formally known as the "Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space", was established as the second treaty on outer space, developed under the auspices of the United Nations Committee on the Peaceful Uses of Outer Space. (COPUOS) It was opened for signature on April 22, 1968 and entered into force before the end of the year, on December 3, 1968. Building on articles 5 and 8 of the Outer Space Treaty, the Rescue Agreement was later followed by the Liability Convention, the Registration Convention, and ultimately the Moon Agreement.

Following the political US-Soviet agreement, early negotiations produced tangible results in the 1963 Declaration of Principles. Further inspired by the UN General Assembly, which highlighted the vast opportunities arising from humanity's entry into outer space, recognized the common interest of all states in the peaceful exploration and use of space, and affirmed that such activities should advance the well-being of all people and benefit states regardless of their level of economic or scientific development, Principle 9 establishes that astronauts shall regard as envoys of mankind in outer space. States must provide all possible assistance in case of accident, distress, or emergency landing on foreign territory or the high seas, and ensure their prompt and safe return to the state of registry of their space vehicle.

The Rescue Agreement elaborates on article 5 of the Outer Space Treaty, and thus establishes three main obligations regarding astronauts. First, states must provide all possible assistance to astronauts in distress on Earth. Second, similar aid must be extended to astronauts encountering difficulties in outer space. Third, states are expected to share all relevant information and resources that could help locate, support, or rescue astronauts, ensuring coordinated international efforts to protect human life in space.

The Rescue Agreement's second aspect, space objects, is likewise reflected in the Outer Space Treaty. Article 8 stipulates that any space objects or their components found beyond the territory of the state in whose registry they are listed must be returned to that state, which may provide identifying information prior to their return. Subsequent to the adoption of the Outer Space Treaty, the United States, the Soviet Union, and several other COPUOS member states recognized that ensuring the protection of astronauts and the recovery of space objects required further clarification and formal rules. Thus, these efforts culminated in the creation of the Rescue Agreement.

Liability Convention

The Liability Convention, formally known as the " Convention on International Liability for Damage Caused by Space Objects", emerged after a decade of work within COPUOS, reflecting sustained efforts to clarify state responsibility for activities in outer space. COPUOS first took up the issue of liability for damage caused by space activities in 1959, assigning it status. The submission of the first draft liability proposal by the United States in June 1962 initiated a decade of both formal and informal negotiations, ultimately culminating in the General Assembly's endorsement of the Liability Convention on November 29, 1971. Finally it entered into force on September 1, 1972.

Articles VI and VII of The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (Outer Space Treaty), establishes the foundations of international liability for damage caused by space activities, making states internationally liable for any damage caused by their space objects, whether the harm occurs on Earth, in

airspace, or in outer space. Together, these articles form the core of the international liability regime governing space activities.

Recognizing the necessity of formulating effective international rules and procedures concerning liability for damage caused by space objects, emphasizing the need to ensure fair, the prompt and equitable compensation to all affected parties in accordance with the principles of this Convention, believing that the creation of such frameworks will strengthen international cooperation and promote the peaceful utilization of outer space.

The Cosmos 954 incident in 1978, marked a significant moment in the context of international liability for space activities, representing the first instance in which satellite-related damage gave rise to an international dispute. In that year, a Soviet satellite inadvertently re-entered Earth's atmosphere and scattered debris across uninhabited Canadian territory, Canada submitted a claim for cleanup costs. Although the Liability Convention was referenced, it was largely sidelined, and the dispute was resolved diplomatically with U.S. assistance rather than through the Convention's formal procedures. Thus, the Liability Convention was relegated to operating solely in the background rather than establishing an effective procedure for addressing international disputes. By leaving it to operate in the background without directing the outcome, the States Parties did not rely on the procedures of the Liability Convention, even when such procedures were applicable.

PAROS Treaty

The PAROS Treaty, formally known as the "Prevention of an Arms Race in Space Treaty" is a proposed and ongoing treaty which is currently being discussed in the Conference on Disarmament (CD). During the 1960s and 1970s several agreements were adopted to prevent the militarization of space and safeguard peace beyond Earth. These include the Limited Test Ban Treaty (1963), Outer Space Treaty (1967), Registration Convention (1975) and the Moon Agreement (1979). While these agreements prohibit the deployment of weapons of mass destruction in outer space, they reveal a lack of comprehensive regulation by allowing the placement of other types of military weapons. This limitation has led many states to argue that the current legal framework is insufficient for

protecting outer space as the “common heritage of mankind.” Concerns over these legal gaps became prominent during discussions on global disarmament and made it necessary for the United Nations General Assembly to take further actions. In the final document of its Special Session on Disarmament, the General Assembly mandated that negotiations be conducted within the framework now known as the Disarmament Conference. These negotiations were aimed to prevent the arms race in outer space within the line of the Outer Space Treaties principles, highlighting the safeguarding of outer space for peaceful purposes. Under the draft treaty submitted by the Russian Federation to the Conference on Disarmament (CD) in 2008, the militarization of outer space is addressed through the establishment of clear limits on the weaponization of space, aiming State Parties to refrain from placing any weapon-bearing objects into Earth’s orbit or deploying weapons on celestial bodies. Overall, the PAROS Treaty is mainly for the states with space military assets, to avoid actions that conflict with the aim of PAROS and to actively support that aim. It argues for consolidation and reinforcement of the outer space legal regime. The PAROS Treaty complements the 1967 Outer Space Treaty, which aims to prevent potential conflicts in outer space and prevent the technology related to “missile defense.”, it prevents the growth of military power in outer space and to gradually decrease its current use for military purposes.

Intelsat

The INTELSAT Agreement, formally known as the “Agreement Relating to the International Telecommunications Satellite Organization” initially existed only in an interim and temporary form from 1964-1973 and in a definitive form 1973-2001. The primary objective of INTELSAT was ‘the provision, on a commercial basis, of the space segment required for international public telecommunications services of high quality and reliability … available on a non-discriminatory basis to all areas of the world’ (Art. III (a) INTELSAT Agreement 1971). The Agreement considers the key provisions of the Outer Space Treaty, notably article 1, which highlights that outer space must be used only for the peaceful uses and benefit for all countries. With this objective, through the most advanced technology and the equitable and efficient use of the radio-frequency spectrum to provide the benefit of all humanity. It is widely held that satellite

telecommunications must be organized in a way that ensures access for all people, while also believing that the participation of member States of the International Telecommunication Union may include involvement in its design, the provision of equipment and the ownership of the system through investment.

The Interim INTELSAT was established in 1964 between states and the telecommunications entities designated by those States. Lacking legal personality, initially an association of 19 participating states cooperated in the establishment of a global satellite telecommunications system. While membership was in principle open for all United Nation (UN) and International Telecommunication Union (ITU) member States, the first 19 members were chosen on the basis of their international telecommunications traffic which reflected in statistical data compiled by the ITU. During the Interim period each participating State nominated a national telecommunications entity to be its signatory of the Special Agreement. These signatories were assigned a quota or investment shares, which determines the voting weight of each signatory member of the Interim Communications Satellite Committee (ICSC), the decision-making body of the Interim INTELSAT. The ICSC was a temporary basis to control the global system until a formal organization was created and to hand over. Not all the members of the Interim INTELSAT could become a member of the ICSC, only the signatories whose total quota was sufficient to reach at least 1.5% investment share could be members. Technical issues as to the creation of this system were managed by the US signatory and the COMSAT which carried out these functions for the ICSC under a management services agreement.

Definitive INTELSAT were agreed in May 1971 by 73 out of 79 members, signed on 20 August 1971, and came into force by then 85 members on 12 February 1973. After a transitional phase, INTELSAT was formally established as a new organization in 1979. As before, any member of the United Nations (UN) and International Telecommunication Union (ITU) might become a member of INTELSAT. Also as in the Interim period, each signatory assigned a quota or investment shares based on its use of the INTELSAT system. The Definitive INTELSAT was organized into four main bodies including Assembly of Parties, a Meeting of Signatories, a Board of Governors and an Executive Organ.

In the 1990s, with the development of the new Technologies and the privatization of the State-run telecommunications providers in whole or in part and markets opening for competitions, the pressure emerged for the privatization of INTELSAT. In November 2000, INTELSAT's privatizations were decided by its then 148 members. While the formal speaking revisions to the 1971 INTELSAT Agreement did not come into force until 30 November 2004, a new body, the International Telecommunications Satellite Organisation (ITSO) began operating in July 2001, within the framework of amendments to the 1971 INTELSAT Agreement. With this transition, the Board of Governors and the system of signatories were dissolved, following the Meeting of Signatories and the Operating Agreement became no longer operational.

Registration Convention

For a long time, the growing number of dead or inactive satellites in outer space has raised serious concerns. The existence of such debris near geostationary orbit represents a major threat, as collisions could cause serious damage or the loss of satellites. On January 14, 1975, the Registration Convention, formally known as the "Convention on the Registration of Objects Launched into Outer Space" opened for signature and entered into force on September 15, 1976. It is the fourth international space treaty that was drafted by the United Nations Committee on Peaceful Uses of Outer Space (UNCOPUOS) following the 1967 Outer Space Treaty, the 1968 Rescue Agreement and the 1972 Liability Convention. Compared to the previous agreements, the Registration Convention did not receive wide acceptance, the Convention has only 44 States Parties with a further four States have signed but not yet completed ratification. However, the Convention separates itself in a positive way that most of the important space powers are party to the Registration Convention. This balanced position of the Convention reflects its clearly defined objective, the registration of space objects, under a framework with only 12 articles.

The prevailing purpose of the Registration Convention is to achieve transparency in space activities, this objective is based on the belief that a mandatory registration system would assist in the identification of space objects launched into outer space. This limits the unidentified space objects and thereby reduces the risk of secretly placing weapons of mass destruction into orbit. Despite these

significant objectives, both the Convention's negotiation history and the fewer number of ratifications compared with the previous three space treaties caused different views and problems about registration. The requirement for the mandatory marking of space objects was one of the major points of discussion among member States during the Convention's drafting in the 1970s. There were growing conflicts between States based on whether they were launching states or possible victims of launching accidents. This conflicts followed pivotal discussions on whether a single central register or multiple registers should be maintained and whether the type of information to be registered should be obligatory or optional. After 5 years of discussion members States reached compromises and adopted 12 articles of Registration Convention.

INMARSAT

Due to the opposition from terrestrial wired service companies, wireless radio initially entered the communications market by providing services to ships at sea rather than for broadcasting. (?) In response to the Titanic disaster (1912), the first version of the International Convention for the Safety of Life at Sea (SOLAS) was adopted in 1914 and later followed by instruments aimed at the same goal, Maritime Safety Regulations. Safety of life was a major objective for the International Maritime Consultative Committee (IMCO) and later became known as the International Maritime Organization (IMO). Despite this, terrestrial radio systems failed to provide reliable global maritime coverage and were affected by variable interference from weather and electromagnetic conditions. These problems were solved with satellite space relay systems. Once available, low Earth orbit satellites were used to provide distress beaconing systems which remain in use today, however based on the experience with the International Telecommunications Satellite Organization (INTELSAT) system it was clear for a geostationary satellite telecommunications system could offer secure global coverage for distress, safety, and ship-to-shore communications. INTELSAT was the most suitable option for such activities, however the USSR and other communist bloc did not join the organization until the 1990s. As a result, these countries were unwilling to see INTELSAT provide a maritime service. Initially the issue was addressed within IMCO but the organization was found to be not suitable and insufficient for the matter. This realization led to the establishment

of the international organization, INMARSAT, formally known as the “Convention on the International Maritime Satellite Organization” adopted by the International Maritime Organization (IMO) on September 3, 1976 and entered into force on July 16, 1979.

Within the framework of the Outer Space Treaty, especially article 1, which is states shall use the outer space for the benefit and in the interest of all countries and considering that a very high proportion of World trade depends upon ships, the objective of this Organization is to strengthen maritime communications, thus contributing in strengthening systems for maritime distress and safety of life at sea communications and effective arranging of ships. In 1994 the Organization’s name changed to the International Mobile Satellite Organization (IMSO) to extend its services beyond the maritime sector to other transport sectors such as air-mobile and land-mobile services, however because of the market recognition of the name INMARSAT, it was kept. After the agreement that was made in 1998 by Inmarsat member Governments, INMARSAT was privatized in 1999. The new structure of the Organization has two entities, which include INMARSAT Ltd and the International Mobile Satellite Organization (IMSO).

INMARSAT Ltd is a public limited company which has taken over all commercial activities of INMARSAT and continues to provide global maritime distress and safety services. Despite these, INMARSAT Ltd seeks to offer telecommunications services to mobile earth stations without inequity based on nationality and to act solely for peaceful purposes. This was regulated by British law and completely privatised by the end of 2003.

International Mobile Satellite Organization (IMSO) is an intergovernmental organization which is responsible for overseeing INMARSAT companies compliance with public service duties especially maritime safety and communication services for security purposes, provided through mobile satellite communication systems.

SALT (Strategic Arms Limitation Talks)

- **SALT I**

In 1967, the United States suggested strict limitations on the use of anti-ballistic missile systems, however, the USSR did not accept this suggestion at first and put

forward counterproposal to include discussion about strategic offensive arms. Afterwards, the United States agreed on this counterproposal. The United States and USSR had agreed to control and lower the use of both strategic offensive and defensive systems on July 1, 1968, when the Nuclear Non-proliferation Treaty was signed, however, the two superpowers did not develop serious talks until 1969. On November 17, 1969, the Strategic Arms Limitation Talks (SALT I) on the limitation of ABM defensive systems and strategic arms between the US and USSR, within the aim of bringing to a halt the arms race between the two superpowers had started. The first serious reviews of possible packages started in the 1970s. After these discussions they were not able to reach an agreement in fact, the USSR suggested that the negotiations should only address ABM (Anti-Ballistic Missile) systems while the United States was determined to make a beginning at limiting offensive systems as well.

1. ABM Treaty

After several negotiations, they had finally reached an interim agreement within the framework of a limited ABM Treaty.

The ABM Treaty, formally known as the "Treaty on the Limitation of Anti-Ballistic Missile Systems" was signed on May 26, 1972 between the United States (US) and Union of Soviet Socialist Republics (USSR) and entered into force on October 3, 1972. Within the framework of easing international tension and building trust among States, while safeguarding peace and international security with strict limitations on the use of strategic arms. States reached an agreement to limit ABM systems to defense their countries and that they may only have two ABM deployment areas only as provided by the Treaty. The Treaty allows each side to have one around the national capital, and the other around ICBM launch areas with no more than 100 ABM launchers and no more than 100 ABM interceptor missiles, under the condition that two sites must be apart from each other by at least 1300 kilometers, to avoid the creation of effective regional defense areas or the development of a nationwide system. The Treaty further prevents the development, testing and deployment of sea, air, space or mobile land based ABM systems and their components. (Article 5)

The 1972 ABM Treaty had allowed each side two ABM deployment areas, one to protect its national capital and other to protect its ICBM launch fields. After a period of two years at the 1974 Summit meeting, the United States and the Soviet Union signed the 1974 ABM Protocol, which limits the deployment of strategic defensive arms and allowed each superpower only one ABM deployment site. While the United States chose to continue the defense of its ICBM sites near Grand Forks, North Dakota; the Soviet Union maintained its ABM Systems defense of Moscow. In order to offer flexibility into the agreement, the protocol permitted both sides to change their choice of an ABM site only once. Moreover, each side must give advance notification, which could only take place during a scheduled ABM Treaty review year. These reviews were set every five years, with the first review beginning in October 1997.

On December 13, 2001, President George W. Bush sent diplomatic notes to Russia, as well as to Belarus, Kazakhstan, and Ukraine, which announced that the United States would withdraw from the Anti-Ballistic Missile Treaty (ABM Treaty) in six months. The United States realized that they have been building strong and new strategic relationships with Russia since the Treaty was entered into with the USSR, which dissolved in 1991. After the treaty entered into force in 1972, several states and non-state entities prepared to use weapons of mass destruction against the United States. Moreover, several states developed ballistic missiles, including long-range ballistic missiles, in order to deliver those weapons of mass destruction. These developments were seen as presenting a threat to the security of the United States, leading to develop, test and deploy anti-ballistic missile systems for defensive purposes, which is against the ABM Treaty. Article XV, paragraph 2 of the ABM Treaty, provides each Party the right to withdraw from the Treaty if it decides that extraordinary events related to the subject matter of the treaty have jeopardized its supreme interests. Under Article XV, paragraph 2 of the ABM Treaty, United States officially withdrew from the ABM Treaty on June 13, 2002.

2. Interim Agreement

The second document of the Salt I, the “Interim Agreement between the US and USSR on Certain Measures With Respect to the Limitation of Strategic Offensive Arms.” was signed on May 26, 1972 and entered into force on October 3, 1972.

The Interim Agreement was seen as a temporary, 5 year of holding action, intended to complement the ABM Treaty by curbing the rapid armaments of offensive strategic ballistic missiles, as well as the relaxation of international tension and the strengthening of trust between States and stabilize nuclear deterrence during the Cold War. The Agreement froze each nation's number of operational or under construction strategic ballistic missile launchers and permits each Party to increase its number of SLBM launchers up to an agreed limit only if an an equivalent number of older ICBM (intercontinental ballistic missiles) or SLBM (submarine-launched ballistic missiles) launchers are dismantled.

At the time of signature the United States had 1,054 operational land-based ICBMs, and none under construction, whereas the Soviet Union was estimated to have 1,618 ICBMs that were operational and construction. This asymmetry weakened America's reliance on its long-range weapons, leading it to focus on its multiple independent reentry vehicles (MIRV) and equipping its missiles with them. Within several limitations launchers could be modernized and replaced in order to ensure that the dimensions of silo launchers were not significantly increased and it is allowed to complete launchers that are already under construction.

The Interim Agreement was signed for a five-year period to freeze the existence of strategic ballistic missile launchers until a more comprehensive and permanent agreement could be negotiated. The Agreement came to an end in 1977, however this agreement contributed to the establishment of Salt II, which seeks to set up more detailed and long-term limitations.

Vladivostok Summit Meeting on Arms Control

The Vladivostok Summit Meeting on Arms Control was a two-day meeting held on November 23–24, 1974, in Vladivostok, Soviet Union. It brought together leaders of the United States and the Soviet Union with the aim of continuing and expanding the existing efforts on strategic arms limitation, especially in preparation for a future SALT II agreement.

The summit took place during ongoing Cold War arms control negotiations. After the signing of SALT I in 1972, both superpowers agreed to limit the number of

ballistic missile launchers they could deploy. However, the agreement was limited in scope, as it did not include important systems such as heavy bombers or multiple independently targetable reentry vehicles (MIRVs). Because of this, both sides continued to develop and improve other parts of their nuclear arsenals, which kept the arms race going. Since SALT I was set to expire in 1977, the United States and the Soviet Union aimed to develop a long-term framework for strategic arms limitation.

The Vladivostok Summit became an important key step in this process. It helped set a general framework for SALT II by dealing with unresolved issues, especially limits on launchers and MIRVed systems. Although no final treaty was signed at Vladivostok, the summit was still an important breakthrough, as it reduced disagreements and set the direction for future negotiations on SALT II.

- **SALT II**

The first Strategic Arms Limitation Agreement permitted the two superpowers to expand their ICBM and SLBM systems through the deployment of Multiple Independently Targeted Re-Entry Vehicles (MIRVs), while committing both parties, under Article VII, to continue active negotiations for limitations on strategic offensive arms. This led to negotiations for a second round of SALT in late 1972, which initially focused on limiting the number of MIRVs. The primary objective of SALT II was to take the Interim Agreement with a long-term detailed Treaty establishing qualitative limits on the number and types of strategic nuclear delivery systems. Two years later, at the November 1974 Vladivostok Summit, President Ford and General Secretary Brezhnev reached agreement on the basic framework of the SALT II Agreement. However, it would take another five years before President Jimmy Carter signed the treaty. This agreement included that each side would be limited to 2,400 strategic nuclear delivery vehicles (ICBMs, SLBMs, and heavy bombers); a 1,320 limit on MIRVs; a ban on the emplacement of new land-based ICBMs; and a limitation on the deployment of new types of strategic offensive arms.

Even after the Vladivostok Agreement, there were two issues on which the two countries had not been able to reach a mutual agreement since SALT I: the number of strategic bombers and the total number of warheads in each

country's arsenal. These two issues were again the subject of negotiations in SALT II. The Soviet bomber Tupolev Tu-22M, which the US called "backfire," posed a concern to the US according to US negotiators, but the Soviets did not want to include this in the SALT talks, leading to disagreements between the US and the USSR. Disagreements developed regarding whether this bomber, known as the backfire, should be classified as a heavy bomber or a strategic offensive weapon, thus including under the 2400 delivery-vehicle limit

On June 16, 1979, two days before the signing of the SALT II agreement, General Secretary Brezhnev sent a written statement to President Carter clarifying that the USSR would not increase its backfire in a way that would pose a threat to the US and that it did not aim to gain intercontinental capability. Eventually, the agreement includes the use of National Technical Means (NTMs), including the collection of electronic signals and the use of photographic reconnaissance satellites, thereby strengthening oversight and strengthening trust between the parties.

The SALT II Agreement was signed by President Carter and General Secretary Brezhnev in Vienna on June 18, 1979. In its final form, SALT II limited each type of weapon with specific numbers. The number of permitted delivery systems has been reduced to 2,250 and established a variety of additional limitations on deployed strategic nuclear forces, including MIRVs. Due to the increased tensions from the Soviet Union invasion of Afghanistan in December 1979, US President Jimmy Carter requested the Senate to not address SALT II, and it was never ratified. Although the Agreement remained unratified, each Party committed to comply with the agreement's terms.

PPWT

In January 2007, China tested a direct-ascent ASAT, which resulted in the largest debris-creating event to date, which had major impacts on private, civil, and international space assets, including the International Space Station. This test represented the advancement of anti-satellite (ASAT) weapons, contributing to increased competition in outer space and introducing a new threat to the stability of the space domain. Due to the growing risks of militarization and concerns about the peaceful use of outer space, and recognizing that other

international agreements related to outer space had played a beneficial role in regulating outer space activities, however they were insufficient to completely prevent the placement of weapons in outer space, China and Russia jointly presented the draft Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects (PPWT) at the Conference on Disarmament (CD) in its Plenary Session on February 12, 2008. Russia encourages CD members to continue their efforts and start comprehensive discussions on "Preventing an Arms Race in Space," aiming to prevent space from becoming a new battleground for military conflict through negotiations and adoption of a new international agreement, thereby avoiding actions that would pose risks to international peace and security.

That draft Treaty was rejected by many states for leaving several gaps unaddressed. Under the comments and suggestions received from the previous version, to address these major issues, On June 10, 2014, Russia and China submitted the updated version of their draft Treaty. Despite visible rephrasing and reorganization of the text, the revised draft does not contain any new aspects compared to the 2008 version. For example neither the proposed draft Treaty nor the updated version addresses direct-ascent anti-satellite (ASAT) systems and space debris which is resulting from ASAT and threatens the long-term sustainability of outer space. Therefore, CD members are unlikely to support it.

Environmental Modification Convention (ENMOD)

In the early 1970s, the artificial modification of the environment for military or other hostile purposes was a growing concern in the international agenda. The sessions held by the US Senate since 1972, and the work resulting from the 1973 call for an international agreement “prohibiting the use of any environmental or geophysical modification activity as a weapon of war…”. Along with bilateral negotiations during the Moscow summit meeting on July 3, 1974 between the US and the Soviet Union, both States formally agreed to bring “the most effective measures possible to overcome the dangers of the use of environmental modification techniques for military purposes.” In August 1975, the USA and the USSR introduced identical draft texts of a “Convention on the Prohibition of Military or any Other Hostile Use of Environmental Modification Techniques” at

the Conference of the Committee on Disarmament (CCD). As a result of ongoing intensive negotiations and the failure to reach a final agreement, the CCD revised the texts relating to the first four articles of the convention on September 2, 1976. Finally by 96 to 8 votes with 30 abstentions, the General Assembly adopted the Environmental Modification Convention on December 10, 1976 and entered into force on October 5, 1978.

Article 2 of the Convention defines environmental modification techniques as "Any technique for changing ,through the deliberate manipulation of natural processes, the dynamics, composition or structure of the earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space." Convention limits the use of these environmental modification techniques for military or any other hostile purposes that could cause widespread, long-lasting or severe effects, as stated in Article 1. The ENMOD Convention marked a significant step forward in international disarmament law by bringing comprehensive disarmament and safeguarding humankind from the threat arising from developments of new means of warfare.

TIMELINE OF EVENTS

4 October 1957 - Sputnik 1

Sputnik 1, the first artificial satellite, is a turning point in human history, opening the door to the space age. Developed and sent into orbit by the Soviet Union on 4 October 1957, and became the first human-made object to circle the Earth. Weighing roughly 84 kilograms, the small, metallic sphere transmitted simple radio signals that could be picked up around the world. Researchers used these signals to study the ionosphere by analyzing electron density. The satellite also sent information about its internal pressure and temperature. Since its interior was filled with pressurized nitrogen gas, any sudden changes would have suggested damage. However, no such changes were detected throughout its orbit, showing that the satellite remained intact. This finding was important, as it suggested that objects could safely operate in Earth's orbit, encouraging further space exploration.

Sputnik has distinguished itself not only through its technological advancements but also through its global impact and political significance. By adjusting their receivers to match Sputnik's radio frequency, U.S. tracking stations successfully followed the satellite's path until it burned up in the Earth's atmosphere. This event pressed the United States to move forward with its satellite and space exploration programs. It has created a sense of urgency in the United States and intensified the emerging space race, shaping the direction of Cold War competition beyond Earth.

3 November 1957 - Sputnik 2

Even before the effects of Sputnik 1 had worn off, the Soviet Union acted again. On 3 November 1957, less than a month after they inaugurated the Space Age, they launched Sputnik 2 carrying the first animal to orbit the Earth, the dog Laika.

While the first satellite had weighed less than 90 kilograms, Sputnik 2 was significantly larger and more advanced, weighing 508 kilograms. After reaching orbit, it remained attached to its booster rocket, rather than separating as later spacecraft would. Due to the limited time available for preparation, the mission did not include any system for the safe return of Laika. In addition, the environmental control system was not designed to support a lengthy mission. Shortly after entering orbit, temperatures inside the capsule where Laika was located reached around 43°C. Although reports suggested that Laika could survive for several days, she had only survived for a few hours. Despite these challenges, Sputnik 2 remained in orbit for 162 days before burning up during reentry into the Earth's atmosphere on 14 April 1958.

12 April 1961 - Vostok 1

Vostok 1 was the first spaceflight of the Vostok programme and the first human orbital spaceflight in history. The Vostok space capsule was launched from Baikonur Cosmodrome on 12 April 1961, with Soviet cosmonaut Yuri Gagarin, making him the first human to reach orbital velocity around the Earth and to complete a full orbit around the Earth; with backups, Grigori Nelyubov and German Titov, the back-up pilot who later became pilot of Vostok 2. Vostok 1 landed after completing one orbit around the Earth.

The mission lasted 108 minutes from launch to landing and quickly transformed Yuri Gagarin from a junior officer into an international symbol of achievement. During the flight, he was not allowed to operate the controls because the effects of weightlessness had only been tested on dogs so far, and medical personnel were unsure how the human metabolism would react in the vacuum of space, so the flight control panel was locked to prevent him from using it. The mission was instead controlled by ground crews, and an override key was provided in case of emergency.

Following re-entry, Gagarin ejected from the spacecraft and descended separately using his own parachute. Although the spacecraft itself was equipped with a parachute system, this method was considered safer due to the risk of a hard landing caused by the capsule's weight. This detail, however, was kept secret for some time, as contemporary rules set by the Fédération Aéronautique Internationale (FAI) required pilots to land with their craft for the mission to be officially recognized.

16 July 1969 - Apollo 11

Apollo 11 was the first American mission to land humans on the Moon and the fifth crewed flight of NASA's Apollo program. It was launched on July 16,1969, and marked a significant achievement in space exploration. The mission was designed to complete a national goal set by President John F. Kennedy in 1961: perform a crewed lunar landing and return to Earth.

Over time, Apollo 11 became the defining moment of the Space Race, reflecting the geopolitical competition between the United States and the Soviet Union during the Cold War. On 20 July 1969, astronaut Neil Armstrong became the first human to step onto the lunar surface. The moonwalk was broadcast live and watched by an estimated 600 million people worldwide, making it among the most watched television events in history. As he took his first step, he famously said, "That's one small step for a man, one giant leap for mankind." The mission concluded successfully when the crew returned to Earth on 24 July 1969, splashing down in the Pacific Ocean after completing one of the most significant milestones in human history.

14 May 1973 - Skylab

Skylab, launched in the early 1970s, was America's first space station and a major step forward in long-duration human space missions. With three crews performing hundreds of science experiments and solar observation, Earth studies, and the development of future missions, including those related to the International Space Station and planned exploration of the Moon and Mars.

Pete Conrad, Paul Weitz and Joe Kerwin spent 28 days in orbit as the first crew of Skylab. The second crew;Alan Bean, Jack Lousma and Owen Garriott, spent 59 days in space. The final Skylab crew spent 84 days in space and consisted of Jerry Carr, Bill Pogue and Edward Gibson.

The primary objectives of Skylab were to demonstrate that humans could live and work in space for extended periods and to expand scientific understanding, particularly in solar astronomy well beyond Earth-based observations. Despite early mechanical challenges, the mission proved highly successful and showed that long-duration space habitation was productive.

Equally important was the study of everyday human life in space. Astronauts' routine activities became a key area of research, offering valuable insight into human adaptation to microgravity. Skylab functioned not only as a solar observatory, but also as a laboratory for medical, environmental, and technological experimentation. Innovations such as space-adapted hygiene systems, exercise equipment, and living facilities were developed, making the station a true "home" in orbit.

Over the course of the program, three, three-man crews occupied Skylab for a total of 171 days and 13 hours, conducting nearly 300 scientific and technical experiments. These included studies on human physiology in zero gravity, detailed solar observations, and Earth resource investigations, all of which played a crucial role in shaping modern space exploration.

20 August 1977 - Voyager 2 / 5 September 1977 - Voyager 1

The Voyager program, launched in 1977, represents one of the most ambitious efforts to explore the outer Solar System and beyond. The twin probes, Voyager 1 and Voyager 2, were designed to study the giant planets and eventually travel into interstellar space, far beyond the influence of the Sun.

Voyager 1, launched on September 5, 1977, followed a faster path than its twin and became the first human-made object to enter interstellar space, crossing the heliopause ,the boundary of the Sun's influence. During its primary mission, it conducted close observations of Jupiter and Saturn, discovering a thin ring around Jupiter and two moons, Thebe and Metis, while also identifying new moons and the G-ring at Saturn.

Voyager 2, launched earlier on August 20, 1977, followed a longer path that allowed it to achieve an even broader exploration. In addition to studying Jupiter and Saturn, it remains the only spacecraft to have visited Uranus and Neptune. It later became the second probe to enter interstellar space in 2018, joining Voyager 1 in the region beyond the heliosphere. Both spacecraft continue to transmit scientific data back to Earth through NASA's Deep Space Network, contributing to our understanding of this distant and largely unknown region.

A unique aspect of both spacecraft is the inclusion of the Voyager Golden Record, a gold-plated phonograph record intended as a time capsule for potential extraterrestrial civilizations. Containing sounds, images, and messages representing the diversity of life and culture on Earth, it serves as a symbolic representation of humanity's attempt to communicate beyond its own planet.

More than four decades after their launch, the Voyager probes continue their journey into deep space, standing as enduring symbols of human curiosity, technological achievement, and the desire to explore the unknown.

28 January 1986 - Challenger STS-51-L

STS-51-L would have been the 25th mission of NASA's Space Shuttle program and the 10th flight of the orbiter Space Shuttle Challenger. Tragically, the mission ended in disaster just 73 seconds after liftoff, when the vehicle broke apart and all seven crew members were lost in an explosion.

The investigation later determined that the cause of the accident was the failure of the primary and secondary O-ring seals in the right Solid Rocket Booster. Extremely low temperatures on the morning before the launch caused the rubber O-rings to lose flexibility, preventing them from sealing properly. As a

result, hot pressurized gases escaped from the booster, damaged the structure connecting it to the external tank, and ultimately led to the destruction of the spacecraft.

Following this tragedy, NASA created the Office of Safety, Reliability, and Quality Assurance to improve launch safety and prevent similar failures in the future. The agency also revised shuttle operations, including the use of redesigned Solid Rocket Boosters and the requirement that astronauts wear pressurized suits during ascent and re-entry for added safety.

“We will never forget them… as they… ‘slipped the surly bonds of earth’ to ‘touch the face of God.’ “ - President Ronald Reagan January 28, 1986

24 April 1990 - Hubble Space Telescope

Hubble Space Telescope, launched in 1990 into low Earth orbit, is one of NASA’s most important astronomical instruments and a key part of the Great Observatories program. Named after astronomer Edwin Hubble, it was not the first space telescope, but it has become one of the largest, and most influential tools ever used in astronomy.

Since its launch, Hubble has significantly transformed humanity’s understanding of the universe. It has contributed to major discoveries, including insights into the atmospheric composition of exoplanets and the identification of dark energy, fundamentally changing modern cosmology. Its advanced design, long-term serviceability, and continuous upgrades have allowed it to remain scientifically productive for decades.

The telescope is operated through a collaboration between institutions: the Space Telescope Science Institute (STScI) selects observation targets and processes scientific data, while NASA’s Goddard Space Flight Center (GSFC) manages and controls the spacecraft. Through its long operational life, Hubble has become both a powerful scientific observatory and a symbol of human curiosity about the universe.

20 November 1998 - International Space Station (ISS)

The International Space Station is one of the most important achievements in modern space exploration and international cooperation. The concept was first developed in the 1980s and officially approved in 1984, with detailed planning and design work continuing until 1993. Construction began in the late 1980s, with major components developed across the United States, Canada, Japan, and Europe, showing from the very beginning that this was a project built on global collaboration rather than the effort of a single nation.

Today, the ISS is operated jointly by five major space agencies: NASA (United States), Roscosmos (Russia), ESA (Europe), JAXA (Japan), and the CSA (Canada). It is the first space station in history to be continuously built and inhabited through international partnership. As the largest human-made structure in orbit, it reflects a long-term commitment to peaceful scientific cooperation beyond Earth.

The ISS program brings together a wide and highly coordinated system, including international astronaut crews, multiple launch vehicles, globally distributed mission control centers, advanced training and engineering facilities, communication networks, and a shared scientific research community. This level of coordination makes continuous operation in low Earth orbit possible and enables complex scientific research that cannot be carried out under Earth conditions.

Since November 2000, the station has maintained an uninterrupted human presence in space, making it the longest continuous space habitation in history.Within the station, astronauts carry out experiments in microgravity, examine how the human body adapts to long-duration spaceflight, and study Earth and space environments from a perspective that is impossible to achieve on the ground.

Beyond its scientific value, the ISS also represents something larger. It stands as a clear symbol of international cooperation, showing how countries with different political and cultural backgrounds can work together toward shared goals in space exploration.

10 June 2003 - Mars Exploration Rover-Spirit

Spirit rover was one of two twin robotic rovers sent to Mars as part of NASA's Mars Exploration Rover (MER) mission, alongside its twin rover, Opportunity rover. Launched on June 10, 2003, and successfully landing on Mars on January 3, 2004, Spirit was designed to study the planet's geology and search for evidence of past water activity.

About the size of a golf cart, Spirit was deployed to explore the Martian surface using panoramic cameras and scientific instruments mounted on a mast about 1.5 meters high. It was sent to a region believed to have been affected by ancient water, with the goal of analyzing rocks, soil, and environmental conditions.

Although originally planned for a much shorter mission, Spirit far exceeded expectations and operated for 6 years, 2 months, and 19 days, traveling approximately 4.8 miles (7.73 kilometers) across the Martian terrain. NASA often described it as a "wonderful workhorse" due to its long-lasting performance and scientific contributions.

Throughout its mission, Spirit made several important discoveries that strongly supported the idea that Mars was once much wetter than it is today. It identified diverse rock formations in the Columbia Hills, some showing clear signs of alteration by water. It also found evidence of past volcanic or explosive activity at Home Plate, and in 2007 uncovered a bright patch of nearly pure silica, likely produced in hot springs or steam vents, both environments that could have supported microbial life. In addition, Spirit observed dust devils and studied Martian soil rich in sulfur and traces of water-related minerals, further revealing the planet's complex geological history.

After becoming stuck in soft soil on May 1, 2009, while driving south beside the western edge of a low plateau called Home Plate and losing communication in March 2010, NASA continued attempts to re-establish contact for over a year. However, on May 25, 2011, the mission was officially declared complete, marking the end of Spirit's remarkable journey of exploration and discovery on Mars.

26 November 2011 - Curiosity Rover

Curiosity rover is part of NASA's Mars Science Laboratory mission and, at the time of its launch, was the largest and most advanced rover ever sent to Mars. Launched on November 26, 2011 and landing on August 6, 2012, Curiosity was designed to investigate whether Mars ever had the environmental conditions necessary to support microbial life.

The rover's main objective is to determine if Mars was ever capable of supporting small life forms known as microbes by studying its rocks, soil, and atmosphere. Early in its mission, Curiosity's instruments identified chemical and mineral evidence suggesting that ancient Mars once had environments that could have been habitable.

While exploring the surface, Curiosity has continued to analyze the planet's geological history, particularly in regions that preserve ancient rock layers. One of its notable findings includes the detection of organic compounds in samples collected from Mars. Some of the largest organic molecules ever found on the planet were discovered in mudstone from Gale Crater, and researchers suggest they may be preserved fragments of ancient fatty acids. These findings are important because they show that complex carbon-based chemistry once existed on Mars, although non-biological explanations alone cannot fully explain the large amount of these compounds.

Overall, Curiosity continues its exploration of Mars as part of an ongoing effort to better understand the planet's past and its potential to have supported life.

25 December 2021 - James Webb Space Telescope

James Webb Space Telescope is the most advanced space telescope currently in operation and is designed to observe the universe in infrared light. It is named after James E. Webb, who served as NASA administrator from 1961 to 1968 during the Mercury, Gemini, and Apollo programs, a period of major expansion in human space exploration.

The telescope was launched on December 25, 2021, aboard an Ariane 5 rocket from Kourou, French Guiana, and reached its final position on January 24, 2022 near the Sun, Earth L2 Lagrange point, about 1.5 million kilometers from Earth.

Unlike the Hubble Space Telescope, Webb does not orbit Earth directly; instead, it follows an orbit around the Sun in a stable position that allows it to observe deep space with minimal disruption. Its first images were released to the public on July 11, 2022.

The James Webb Space Telescope is a joint project led by NASA, in partnership with the European Space Agency (ESA) and the Canadian Space Agency (CSA). Together, these organizations developed and operate the telescope, which now serves thousands of astronomers around the world as a key scientific instrument.

Webb's main mission is to study the history of the universe, from the formation of the first stars and galaxies after the Big Bang to the development of planetary systems that could support life. It also examines exoplanet atmospheres to help scientists understand whether conditions for life exist beyond Earth.

As the largest space telescope ever built, Webb is equipped with highly sensitive infrared instruments that allow it to detect extremely distant and faint objects that cannot be seen by the Hubble Space Telescope. This makes it a powerful tool for exploring the early universe and advancing modern cosmology.

16 November 2022 - Artemis I

Artemis I was the first mission in NASA's Artemis program, marking the beginning of a new phase of lunar exploration and the long term goal of future missions to Mars. As an uncrewed lunar flight test, it was designed to test key systems that will later support human exploration of deep space.

Launched on November 16, 2022, Artemis I used NASA's new Space Launch System (SLS) rocket to send the Orion spacecraft on a journey beyond the Moon and back. The mission lasted 25 days, 10 hours, and 53 minutes, traveling a total distance of about 1.4 million miles before safely splashing down on December 11, 2022. During re-entry, the spacecraft reached speeds of up to 24,581 mph (Mach 32), testing its ability to withstand extreme conditions.

Artemis I was the first integrated flight test of NASA's deep space exploration systems, combining the SLS rocket, the Orion spacecraft, and upgraded ground

systems at Kennedy Space Center in Florida. The main objective of the mission was to test Orion's performance, especially its heat shield, during deep space travel and high speed re-entry.

As the first step in a series of increasingly complex missions, Artemis I successfully demonstrated that NASA's systems are capable of supporting future crewed missions. It plays a crucial role in preparing for the return of astronauts to the Moon and establishing a sustainable human habitation on the Moon, which is also designed to support future exploration of Mars.

RECENT STATUS

Artemis II

Artemis II is the first crewed mission of NASA's Artemis program and represents a major step toward long term human exploration of the Moon and future missions to Mars. As a crewed lunar flyby mission, it marks the first time astronauts have traveled beyond low Earth orbit since Apollo 17, making it a historic return to deep space human exploration.

Launched on April 1, 2026, Artemis II is the second flight of the Space Launch System (SLS) and the first crewed flight of the Orion spacecraft, which was named Integrity by the crew. The mission lasted 9 days, 1 hour, and 32 minutes, ending with a splashdown on April 10, 2026.

Its main objective was to test the performance of the Orion spacecraft, crew systems, and mission procedures in deep space conditions, ensuring ability to perform for future lunar surface missions such as Artemis III and beyond.

The four person crew also made history in multiple ways. Victor Glover became the first person of color to travel beyond low Earth orbit, Christina Koch became the first woman to do so, Canadian Space Agency astronaut Jeremy Hansen became the first non U.S. citizen on a lunar mission, and commander Reid Wiseman became the oldest astronaut to travel to the Moon and beyond. During the mission, the crew reached a maximum distance of 252,756 miles (406,771 km) from Earth, breaking the previous record set by Apollo 13.

Following launch, Artemis II gained significant global attention for both its technical achievements and its crew, symbolizing a new era of inclusion in space exploration and strengthening public interest in future lunar missions.

ASAT Weapons

The growing development of anti-satellite (ASAT) weapons has become one of the biggest concerns related to the militarization of outer space. Major space powers such as the United States, Russia, China, and India have continued investing in technologies that can damage, disable, or destroy satellites in orbit. These systems are seen as important military tools because satellites play a major role in communication, navigation, intelligence, and missile warning systems. As countries become more dependent on satellites, the threat against them has also increased.

Concerns became even stronger in February 2024 after U.S. officials announced intelligence reports claiming that Russia may be developing a nuclear-capable anti-satellite weapon. Unlike traditional ASAT systems, a nuclear weapon in space could affect many satellites at once through radiation and electromagnetic effects. This could damage both military and civilian satellites, including systems used for GPS, banking, communications, and emergency services. Many experts warned that such developments could increase tensions between major powers and lead to a new arms race in space.

The rise of ASAT technologies also challenges the principles of the Outer Space Treaty, which was created to ensure that outer space would remain peaceful and free from weapons of mass destruction. In recent years, several countries have carried out ASAT tests, creating dangerous space debris that threatens satellites and future space missions. Russia's ASAT test in 2021, for example, created thousands of debris fragments. These developments also threaten international cooperation in space projects such as the International Space Station (ISS), where countries have continued scientific cooperation despite political tensions on Earth.

In response, many countries have called for stronger international cooperation to prevent the weaponization of space. States such as the United States and Japan supported new discussions within the United Nations on limiting destructive ASAT testing and protecting the peaceful use of outer space. However, political tensions between major powers continue to make

international agreements difficult. As space becomes more important for both civilian life and national security, the issue of anti-satellite weapons remains a major challenge for maintaining peace beyond Earth.

Golden Dome

The “Golden Dome” missile defense system is one of the most important recent developments in U.S. space and security policy. Announced in 2025, it is a planned defense system designed to detect and destroy ballistic, hypersonic, and cruise missiles before they reach their targets. Unlike earlier systems, it would rely strongly on space-based technologies, including satellites used for tracking and supporting missile defense operations.

This project reflects a growing trend where space is no longer seen only as a peaceful or scientific area, but increasingly as part of military planning. The use of large satellite networks and advanced technologies shows how space is becoming more connected to national defense strategies. While it is presented as a defensive system, many experts and states argue that such developments increase the risk of turning outer space into a zone of military competition.

The Golden Dome raises concerns under the Outer Space Treaty, which emphasizes the peaceful use of outer space and restricts the placement of weapons of mass destruction in orbit. Although the system is presented as defensive, its reliance on space-based interceptors has led some states to see it as a step toward the militarization of space. Russia and China have both criticized similar initiatives in the past, arguing that they could increase tensions and lead to a new arms race in orbit.

Another key concern is the scale and high cost of the program, which is expected to range from hundreds of billions to over a trillion dollars depending on its final design. Such a large investment could increase competition among major powers in space technology, especially in military satellites and missile defense systems, while also highlighting the growing role of private companies in space security projects and raising questions about state responsibility

Growth of Military Satellites

The use of military satellites has increased significantly in recent years, showing how space has become an important part of national security. Today, it is

predicted that thousands of satellites in orbit are used for military purposes, including communication, navigation, and missile warning systems. Major space powers such as the United States, China, and Russia continue to expand their satellite networks, launching many satellites each year to strengthen their defense capabilities and monitoring systems. In many cases, these developments also focus on improving real-time detection of missiles and other military activities on Earth. As a result, this fast growth shows how dependent modern armed forces have become on space-based systems. At the same time, this development raises concerns that space is now shifting from a common scientific area into a more competitive and military-focused environment.

QTBA

1.How can existing international frameworks such as the Outer Space Treaty be strengthened to effectively prevent the militarization of space?

2.What legal gaps currently allow the deployment of non-WMD weapons in space, and how can these gaps be addressed?

3.How can transparency and trust be increased among states regarding their space activities and satellite operations?

4.What role should international organizations like the United Nations and COPUOS play in monitoring and regulating military activities in outer space?

5.How can the dual-use nature of space technologies (civilian vs. military) be regulated without limiting technological development?

6.What measures can be taken to prevent space debris caused by military activities and ensure the long-term sustainability of outer space?

7.How can equitable access to space be ensured while preventing powerful states from dominating or weaponizing outer space?

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