Original research article / Originalus mokslinis straipsnis
Vol. 1 No. 6 (2025): Rugpjūtis

A Review of International Law (Military Use and Arms Race in Space)

[1] Mehmet UÇKAÇ

Accepted: 07.20.2025
Published: 08.04.2025
https://doi.org/10.69760/portuni.0106005

Abstract. Today, one of the main concerns of the Committee on the Peaceful Uses of Outer Space (COPOS) and its subcommittees is the issue of militarization of outer space rights. The dominant space powers, such as the United States of America, Russia, and China, have added to this concern by using advanced military equipment in space. Therefore, the international community must seek desirable and practical solutions to this problem in order to prevent militarization and the creation of an arms race in space.

On this basis, this article seeks to examine the military use of space and legal documents and explain the contractual and customary system governing space treaties, to examine the military prohibitions governing space activities in order to prevent such activities in outer space, and to conduct a descriptive analysis by examining some dual-use space-based weapons and to make the inappropriate aspects of the military use of space more apparent than before.

Keywords: *Space Law, Arms Race, Militarization Of Space, Treaty And Customary System, Space Weapons*

Introduction

International space law and, consequently, space activities are new phenomena in international law that have been accompanied by the conclusion of outer space treaties and the adoption of numerous resolutions.

One of the important developments in this field is the establishment of the Committee on the Peaceful Uses of Outer Space (COPOS)[2] in 1959 and the two (Technical, Scientific and Legal Subcommittees)[3] that have been approved by the following resolutions of the United Nations General Assembly.

The history of space exploration dates back to the early years after the Cold War and the launch of the first spacecraft, Sputnik 1[4], by the former Soviet Union. A launch that, although it became a turning point in the effort to achieve irrefutable proof of space advances in its time, caused other space

[1] Dr. Mehmet Uçkaç, PhD Graduate, International Science and Technology University, Warsaw / Poland, mehmet.uckac@istu.edu.pl, https://orcid.org/0009-0001-9488-9036

[2] Committee on the Peaceful Use of Outer Space, (COPUOS)
[3] The Scientific and Technical & Legal-Subcommittee
[4] Sputnik 1

powers, such as the United States and then China, in later stages, to adopt such technologies to present their space power even more advanced and superior to the former Soviet Union.

On the other hand, in the international arena, efforts have been made by space actors by concluding space treaties and proposing the adoption of resolutions or issuing declarations for the peaceful use of space, with the prohibition of military use, and under the supervision of the United Nations General Assembly. However, at the same time, by violating these legal rules, numerous insoluble and dangerous challenges have arisen for other countries, and the struggle to comply with these rules has been intensified day by day.

Accordingly, the proper implementation of these treaties and resolutions has become important, especially in recent years, due to the increase in international tensions and the production of various types of advanced military equipment and tools. This type of equipment is usually used in cyber attacks (cyberattacks).[1]

Which can be controlled and tracked by various types of long-range space satellites from the Earth to space and vice versa. With this description, the need was felt to achieve the fundamental objectives of international law in accordance with the Charter of the United Nations, and in particular the basic principles of international space law for the peaceful uses of space, on the one hand, and to respect the principles of the customary treaty system, along with correct, impartial and non-unilateral interpretations as a tool for the correct understanding of the concepts of space treaties with the help of legal doctrine, on the other hand.

Therefore, the question arises as to what dimensions of the prohibition of military use and arms race in the legal regime of space are revealed by examining sources, including international space law documents and rules and other related documents prohibiting armed conflicts[2],which are also prohibited in international humanitarian law[3] and, in a sense, have the potential to be used in armed conflicts in space. Also, to what extent do space-based military weapons play a role in the militarization of space? Answering these questions will explore the complex dimensions of the issue and reveal its hidden aspects to a large extent.

International Law Governing Outer Space

Space law[4]can be considered as a comprehensive set of laws and regulations governing space activities. Like other international laws, these laws include various international agreements, treaties, conventions, resolutions of the United Nations General Assembly, as well as laws and regulations of other international organizations.

In addition, many space-faring countries have a set of national laws on space activities that cover a variety of issues, such as environmental protection in space and on Earth, liability for damage caused

[1] Cyber Attacks
[2] Armed Conflicts
[3] International Humanitarian Low
[4] Space Low

by space objects, dispute resolution, rescue of astronauts, use of space technology, and international cooperation.

One of the characteristics of international space law is its contractual nature; Because most of its provisions are included in treaties. Another distinctive feature is the predominance of multilateral treaties, especially where fundamental rules and principles are concerned.

This is due to the decisive role of the United Nations in the creation of space law. Space law shows that international cooperation is indispensable for the control of space activities so that disturbances and chaos do not occur. (The United Nations treaties on outer space law)[1] are the result of compromises, arguments and negotiations.

These treaties were adopted by the COPUS Committee, which acts on the basis of consensus As a result, their language is not transparent and does not allow us to easily determine,[2] the content and scope of the rights and privileges, as well as the obligations and commitments they entail.

The Conventional and Customary System

International custom is a generally accepted legal practice that plays a vital role in shaping modern international law, including international space law. The origin of customs of public international law, as also referred to in the Statute of the International Court of Justice, is derived from the general practice of States, together with their legal belief in the right to do or not to do something, and they are binding on all States.

International space law, like other subjects of international law, has been formed from multiple sources, including treaty systems, treaties, and customary rules. "Some scholars of international law have considered United Nations resolutions on space matters to be a kind of "immediate formation of customary international law".[3]

This may be especially true of resolutions adopted by consensus or without a vote. Because they express the formation of a new legal belief. The same process exists for the transformation of treaties into custom. Regarding the resolutions of the United Nations General Assembly on space activities, it can be said that these resolutions, with the exception of the Resolution on the Principles of Direct Broadcasting (1982), which was not adopted by consensus, are thus evidence of the creation of soft rights that, with the passage of time, have lost their soft status as they seem to have become general rules of international law or international custom. This is especially true of the principles governing the assessment of remote sensing. (1986) The Principles Governing the Use of Nuclear Energy Resources (1992) are more widely observed; because all states have observed them.

Therefore, considering the views expressed at the time of the adoption of the United Nations resolutions in the field of space activities and the process of their adoption and compliance, it can be stated that these resolutions became binding under conditions that were consistently and continuously

[1] For other relevant treaties that can be cited in the section on space law prohibitions, see page 9 of this article.
[2] Consensus
[3] Instant international customary law

repeated and observed and became customary, and their name has no effect on the degree of their binding nature. Since the adoption of the Mah Agreement in 1979[1], no other treaty has been adopted that directly and universally regulates space activities; however, several resolutions have been adopted in this area.

Apart from the Mah Agreement, other treaties have enjoyed relatively universal acceptance. "This is a testament to the fact that the international community is still waiting to reach a consensus on a legal framework for space activities. It is also important to note that for many space activities, there is an international legal regime of a treaty or resolution nature.[4] In principle, public international law is largely customary law. In any legal system, custom is the primary form in which the rights in question are realized.[2]" "According to Nice[3], no treaty can have the value of a well-established custom as a guide to international law, either in itself or as an interpretation of the international conscience of a given period.[4]"

"The material elements of custom include diplomatic correspondence, political declarations, the opinions of legal experts, official instructions It is about legal issues and national and international judicial decisions. The value of each of these sources is different and depends on the circumstances and circumstances of each case.[5]

"According to Bencheng[6], rapid changes in political geography require a rapid development of international law. A theory (of immediate custom)[7] has also been formed on the basis of these changes; Although the formation of international law still requires international acceptance, it can be formed in a shorter time and on the basis of the behavior of a smaller number of states than has traditionally happened. According to the theory of immediate custom, customary international law is the result of the declaration of laws that are generally accepted and the action that indicates their support or the conduct that indicates their acceptance.[8]

"Russian jurists believe that international custom, as a rule, is the result of agreement between states on general principles that simply define the generality of permissible conduct of states and other subjects of international law. They also believe that customary international law plays an important role in the following situations: as a source of rights and obligations of States in areas where there is no treaty in multilateral relations, regulating relations between States that are not parties to a particular

[1] Moon Agreement,1979
[2] The Scientific and Technical & Legal-Subcommittee
[3] Nys
[4] Sputnik 1
[5] . Cyber Attacks
[6] Bin Cheng
[7] Moon Agreement,1979
[8] Armed Conflicts

convention, and also governing relations between States that are parties to a convention and not to a particular convention.

When these principles are raised in the context of space, different perspectives emerge. For example, with regard to remote sensing activities, there is a view that this issue is generally accepted and that the long history of remote sensing of land and its natural resources has increased the importance of customary law, according to which it is permissible to carry out remote sensing programs without obtaining prior permission from the country being measured. However, this view is challenged by some other theorists in matters related to transit. "Innocuous use of the airspace of States is excluded when ascending into outer space or returning from space.[1]" "Adherence to customary international law would have its own advantages in situations where the space treaty system is ineffective.

For example, it might refer to laws that protect military or non-military satellites in areas not covered by space treaties. Furthermore, customary international law has the potential to change in response to political and technological developments, because customary international law is derived from the behavior and practices of individual States.

In general, customary international law potentially fills many of the gaps in the treaty law system. There are two theories regarding customary international law of space: immediate custom and the analogy of existing laws with space-related issues. According to this theory, an immediate custom that allows preventive measures is formed when a state takes unilateral action and other states follow or accept it. The imitation of the basic laws of the land can also play the role of customary international law.[2]

Definition of the concepts of military and weaponization of outer space

"Any use of space for military purposes"[3] "Militaryization" of space is said to have begun with the launch of the first communications satellites for military use, while "weaponization"[4] is used when weapon systems are deployed in space orbits that have the capability to attack targets in space or on the ground. The weaponization of space has also been defined as the process resulting in the deployment of weapons in space that may be intended to destroy targets in orbit or on the ground.[5]

According to Professor Ivan A. Vlasik[6], "the term 'militarization' as applied to outer space should not be confused with 'weaponization.'" Although there is no internationally accepted definition of either term, the militarization of space refers to the use of space by a significant number of military spacecraft, while the latter, the weaponization of space, "is defined as the placement of any means

[1] nternational Humanitarian Low
[2] Space Low
[3] Militarization
[4] Weaponization
[5] Space Low
[6] . Ivan A. Vlasic

designed to attack man-made targets in outer space or in the terrestrial environment for any period of time.[1]"

Military Background and Weaponization of Outer Space

Since the early days of the space age, both space superpowers (America and Russia) have designed and placed various instruments in orbit to provide tactical and strategic military capabilities. Despite public opposition, long before Sputnik was launched, the space programs of the Soviet Union and the United States were inherently military in nature, and had always been driven by military considerations rather than scientific and non-military considerations. "The tacit understanding between the two superpowers was that there would be no arms race in that environment, as there was a common interest in maintaining military satellites." In the United States, a group of technical experts; The RAND Project, which also had close ties to the Pentagon and intelligence agencies, began research in 1946 into the design and launch of a reconnaissance satellite.

Until, on July 29, 1955, they announced their intention to launch an artificial moon into space as part of the International Geophysical Year (IGY) program. The Soviet Union also announced on July 30, 1955, that they would also launch satellites into space as part of the (IGY) program. By announcing this plan, they gave it a more scientific aspect and concealed its military nature. Of course, before sending Sputnik, America also kept its activities secret.

Until America published its military activities in its press in 1955 and made it public. The program called (Satellite and Missile Surveillance System), which was the first space-based reconnaissance system, became operational in late 1961.

Then, in 1967, when the Outer Space Treaty was signed, China and France also engaged in military use of space. In the Persian Gulf War (the Allied war against Iraq to counter the invasion of Kuwait) in 1991, which the United States called Operation Desert Storm, military use of space occurred, which was a clear example of the gradual evolution of space equipment.

The Chairman of the Joint Chiefs of Staff described these operations as the first space war because it was the first opportunity to use all of the military's advanced space capabilities in a ground conflict. The United States used 7 imaging satellites and 15 to 20 intelligence satellites to monitor Iraqi radio communications, as well as 3 military meteorological satellites, 4 military communications satellites, and 16 NAVSTAR and GPS satellites.

The Americans also received additional assistance from French SPOT and American LANDSTAR satellites. This war emphasized the importance of military space systems. Among other consequences of the Persian Gulf War, it can be noted that the extensive use of ballistic and Scud missiles by the Iraqis led some influential members of the US to ignore the prohibition of the 1972 Anti-Ballistic Missile Treaty and request the testing and development of ground-based and space-based anti-missile systems as part of a global defense program against limited attacks.[2] "The issue of military use of space has not yet been addressed. Again, arms control is on the agenda. The United States' plans to build a

[1] . Consensus
[2] . Instant international customary law

large-scale ballistic missile defense system[1] that includes space-based equipment and "space control" in its military strategy have heightened international concerns about the militarization of space.

China, France, and Russia have called for negotiations on a new multilateral treaty that would ban the stationing of weapons in space and limit its use to peaceful purposes. These requests have been supported by other countries, including Canada and Sri Lanka. China has played a leading role in supporting the creation of a non-military "space sanctuary.[2]"

The beginning of the arms race in space

Regarding the discussion of the military use of outer space, it should be noted that this discussion began simultaneously with the launch of the Sputnik satellite into space by the Soviet Union. In fact, the disarmament regime that currently governs space activities is the result of efforts by the international community, which began simultaneously with this launch, to prevent an arms race in space between the two space superpowers, the United States and the Soviet Union.

In 1999, at the Conference on Disarmament, China proposed the re-establishment of a "Special Negotiating Committee" under the theme of the three work orders of the Conference on Disarmament, "Prevention of an Arms Race in Outer Space". This proposal was originally supported by Russia.[3]

In 2001, China intensified its diplomatic efforts to initiate substantive negotiations on space weapons in response to the United States' proposal to replace the 1972 Anti-Ballistic Missile Treaty (ABM Treaty)[4] with a new strategic framework between the United States and Russia. "When China shot down its own old weather satellite in 2007, it was the first test of an anti-satellite weapon." It was from the 1980s.

Many observers saw this reaction as a response to the increased US investment in advanced technology for space control and warned of an "arms race"[5] in space. Such an arms race would in fact have negative consequences for space security and the security of all spacefaring nations.

---

[1] . Ballistic Missile Defense (BMD)

[2] Referring to the USA's interest in the military uses of space, a senior Chinese representative warned at the United Nations that 'outer space is now faced with the danger of being weaponized, which manifests itself in two aspects, namely, the development of the missile defense program and the "space control" plan'. Statement by Hu Xiaodi, Head of the Chinese delegation at the 2001 session of the United Nations Disarmament Commission, 10 Apr. 2001

[3] Russia has suggested that the CD establish an ad hoc committee to negotiate a PAROS regime, which could potentially take the form of an international legal instrument. Statement by VasilySidorov, Ambassador of Russia to the CD, Conference on Disarmament document CD/PV.871, 22 Mar. 2001

[4] . Anti-Ballistic Missile Treaty (ABM Treaty)

[5] . Arms Race

But even on the brink of a space war, the (leftovers)[1] 26 of space debris from space weapons testing could severely impact space safety. Further testing of (anti-satellite) weapons[2] would increase this number significantly. An arms race in space would also have negative economic consequences.

The key question is how can we keep space safe? One of the latest initiatives in this area is the European Union's proposal for an agreement among major spacefaring countries on the origin of behavior in space. Although the establishment of "Rules of the Road"[3] for space is a first step in the right direction, it does not prohibit space weapons and therefore cannot prevent an arms race in space.

The creation of an international arms control regime for space would be a better tool for keeping space safe, and the European Union should therefore combine its approach (Code of Conduct)[4] with the initiative to create such a regime. Of course, it cannot create a quasi-arms control regime for space. A long-term strategy should be developed that outlines the fundamental problems that must be solved to achieve arms control in space.

To do this, theoretical considerations about the establishment of international regimes are used. Therefore, to achieve an agreement on arms control in space, countries must address fraud and the unequal distribution of benefits.

However, before these problems can be solved, major space powers must learn that, due to the interdependent nature of space, unilateral strategies for the production of space weapons will not increase their security. The European Union could facilitate such a knowledge-building process by organizing a series of conferences among scientists from major space powers on the dangers of war in space.[5]

Basic Principles for the Prohibition of Militarization in Outer Space Based on the Outer Space and Moon Treaties

Since in order to understand the concepts contained in all documents, especially space documents, we need to carefully study their meanings, which also requires examining the impartial interpretation of some of the ambiguous points of these meanings, which are mostly found in the five-part space treaties and resolutions, especially the declaration resolutions; Therefore, in order to correctly identify and

[1] Space Debris
[2] ASATs, Anti-Satellite Weapons
[3] Rules of the road are rules about differentiate between rules in territorial space & in outer space as to the legal status of the areas in which satellites are put in orbit. One set of principles will apply dealing with rules applicable to the right of each state to control movement in its territory.
[4] Code of Conduct, The Proposed draft International Code of Conduct for Outer Space Activities is a non-legally binding, voluntary international instrument aimed at building norms of responsible behavior in space activates. This draft initially stemmed from a document proposed by the European Union under the French Presidency
[5] . Moon Agreement,1979

identify the types of prohibitions contained in these documents, it is necessary to first examine the principles known as the Basic Principles of Outer Space.

Then, by analyzing the concepts contained in these principles, which are included in these treaties, in particular the Outer Space Treaty (1967)[1]and the Moon Agreement (1979)[2]it is possible to trace the existence of various prohibitions declared in the field of outer space, especially military prohibitions.

If we consider the Outer Space Treaty as the publication of other space law treaties that contains the spirit and general principles of the rules and obligations of States in the exploration and use of outer space, It is a concept of outer space and has been able to address the military aspects of outer space to some extent; without a doubt, the principles of the Moon Treaty can also be considered as a treaty that is based on the fundamental principles of the Outer Space Treaty, because (this agreement implements the provisions of the Outer Space Treaty on the guidance of space activities in accordance with the laws of the The United Nations, the Charter of the United Nations, and for the purpose of maintaining international peace and security and promoting international cooperation with due regard for the respective interests of all Member States, has reiterated.[3]

Outer Space Treaty

The Outer Space Treaty was drafted and drafted by the United Nations Committee on the Peaceful Uses of Outer Space. This treaty governs and controls all activities related to the exploration and use of outer space by States. Theorists have interpreted this treaty as: a structure or primary part of the control and management of space activities, which in itself leads to the establishment of a general norm under the title of peaceful uses of outer space.

This treaty can also be defined as a turning point in human efforts to control the use of nuclear weapons and other weapons of mass destruction and to prevent military conflicts in outer space.

In the preamble to this treaty, the demilitarization of outer space is comprehensively stated and accepted. This treaty also refers to several key resolutions that were previously adopted, such as the 1962 Declaration of Principles, adopted in 1963, and recalls Resolution 1884, adopted in 1963, which prohibits the placing of any nuclear-weapon-bearing or other weapons of mass destruction in orbit around the Earth and the installation of such weapons on other celestial bodies, and also emphasizes Resolution 110 of the United Nations General Assembly of 1947, which prohibits the placing of any nuclear-weapon-bearing or other weapons of mass destruction in orbit around the Earth and the placement of such weapons on other celestial bodies. designed or likely to incite or incite certain threats to the peace, breaches of the peace, or acts of aggression, shall be applicable in outer space and may be used to achieve its objectives.[4]"

"Article 4 of the Treaty establishes a clear and unambiguous prohibition against placing in orbit around the Earth any object carrying nuclear weapons or weapons of mass destruction. This article states that

[1] . Outer Space Treaty, (OST) 1967
[2] Moon Agreement, 1979
[3] Article 2 and paragraph (2) of Article 4 in accordance with the letter of the month
[4] Nys

the moon and other celestial bodies must be used by member states in a manner that does not constitute a threat to international peace and security.

According to this article, "the establishment and maintenance of military bases, installations and fortifications, the testing of any type of weapon and the holding of any type of military maneuvers in the skies are prohibited." "A reasonable interpretation of the phrase "any type of weapon" used in this article would naturally and normally include weapons that also have the capability of anti-satellite weapons.

In addition to Articles (3) and (4) of the Outer Space Treaty, Article (9) of the Treaty also addresses the use and employment of anti-satellite weapons, stating that "If any State Party considers that an activity or test planned by it on the moon or other celestial bodies is likely to interfere with the peaceful activities of other States Parties in the use of outer space, that State Party shall undertake to: "Before taking any action in the field of such activities or tests, it shall conduct the necessary international consultations." Although the treaty does not provide for a clear and transparent consultation process, it is possible to argue that States that have the capability to develop and use advanced anti-satellite weapons should proceed with their work after "appropriate international consultations." Therefore, it can be said that one of the goals of the Outer Space Treaty was to control arms in space, which specifically includes the control of anti-satellite weapons. However, due to some ambiguities in the provisions of this Treaty, the exact extent of this protection is not clear and transparent, and therefore this Treaty needs a careful review and revision in terms of arms limitation and control of hostile activities.[1]

Moon Agreement

This agreement was adopted by the United Nations General Assembly in 1979, following the Outer Space Treaty, with the aim of including the Moon and other celestial bodies in the legal regime governing outer space.

"Like the Outer Space Treaty, this Agreement also refers to the principle that the Moon cannot be placed under the national sovereignty of any State, (Article 11, paragraph (2)). This Agreement declares for the first time that space resources are the "common heritage of mankind" and prohibits any property rights in relation to these resources. Article (12) of this Agreement is a restatement of Article (8) of the Outer Space Treaty, which limits the competence of States over personnel and equipment. It identifies itself.

Similarly, it can be said that this article also transfers the management of private sector commercial activities to the relevant countries.m Similarly, Article (14) of this agreement discusses the international responsibility of the State, which can again be considered an interpretation of Articles (6) and (7) of the Outer Space Treaty, which hold countries internationally responsible for private sector commercial activities.

[1] Bin Cheng

Of course, it is worth mentioning that this The agreement was opposed by countries that were in favor of mineral exploration and activity in space and was never signed by the main and leading countries in space, such as the United States and the Soviet Union.[1]

"According to this agreement, all activities on the Moon must be conducted in accordance with international law, in the interests of peace, and with due regard for the interests of all States Parties to the agreement. The Moon is declared demilitarized and nuclear weapons must not be mixed with other weapons of mass destruction. be placed in lunar orbit. The exploitation and use of the moon is a matter for all mankind and should be for the benefit of all.

Other provisions of the treaty provide for the freedom of scientific research without discrimination, the preservation of the lunar ecological balance, the guarantee of life and health of individuals on the moon, and the right of reciprocal inspection. The treaty emphasizes the prohibition of the allocation of the moon to a particular state (which is also included in the Outer Space Treaty).[2]

"Article (3) of the Treaty also states: The Moon shall be used by all States Parties exclusively for peaceful purposes. Any threat or use of force or any other hostile act or threat of hostile act on the Moon is prohibited. The use of the Moon for the purpose of committing such acts or participating in any threat against the Earth, the Moon, spacecraft, spacecraft personnel or man-made space objects is prohibited.[3]

Investigating the process of prohibiting military use and arms race in space

In the process of beginning militarization and the beginning of an arms race in outer space, it is possible to refer to the types of military prohibitions and the prohibition of an arms race in space, with reference to existing documents, which mostly include types of space treaties and other related treaties in this field, and with the need to better understand space weapons, which will familiarize the audience with their dual uses as well as aspects of use. It revealed the military implications of them, along with examining the history of activities carried out by advanced space countries such as the United States and Russia, to clarify the issue of militarization in space in order to achieve greater transparency on the subject. "The 1980s saw a complete breakdown in bilateral arms control negotiations between the United States and the former Soviet Union, leading the former Soviet Union to request the United Nations in 1981 to place the issue of an international agreement on the prohibition of space weapons on the agenda of the General Assembly.[4]""In response to this request, Italy, on behalf of the Western countries, proposed for the first time a statement entitled "Prevention of an Arms Race." Presented in space. On the one hand, there is the fact that both major space powers have been developing anti-satellite weapons in space, so the draft of this statement called on the Disarmament Committee to give priority to the issue of effective negotiations and agreements aimed

[1] Instant Custom
[2] Militarization
[3] Weaponization
[4] Ivan A. Vlasic

at preventing an arms race in outer space, in particular a reviewable agreement to ban anti-satellite systems.[1] "

The drafters of this draft explicitly Anti-satellites were considered weapons whose effects would destabilize international peace and security. The draft of this statement was submitted by Mongolia and the Group of Socialist Countries, based on a version of the former Soviet draft for the conduct of the negotiations.

The UN General Assembly adopted both declarations without a negative vote and with only one abstention, explicitly calling on all States to prevent an arms race in outer space and to prevent outer space from becoming a theater of military confrontation, and stating its position that such use of space was contrary to the true meaning of the Outer Space Treaty.[2] "The following year, the Second United Nations Conference on the Exploration and The Peaceful Uses of Outer Space, which was originally devoted solely to the subject of scientific exploration of space, also expressed deep concern in its final document about the development of an arms race in outer space.[3]

According to the Director of the United Nations Office for Outer Space Affairs and the Secretary-General of the Conference, developing countries are no longer willing to leave the issue of militarization and weaponization of space solely to the two space powers.[4]

In the course of the review Expanding on the distinction between passive and active military uses of outer space and stating the status of space as the common heritage of humanity, non-aligned countries also called for an explicit condemnation of active military uses of space. In their view, this situation is necessary to "prevent the spread of an arms race in space that could threaten all of humanity" [21]. "

The final resolution of the Second United Nations Conference on the Peaceful Exploration and Use of Outer Space agreed to make a general appeal to States to prevent an arms race and hostile activities in outer space, and requested the Conference on Disarmament (33) and the Conference on Outer Space Affairs (COPASS) to consider this issue as a matter of priority.[5]

After the end of the Cold War, the Committee on Outer Space Affairs (COPASS) refocused its efforts To mainstream this issue into the principle of peaceful uses of outer space, it has intensified

[1] Ballistic Missile Defense (BMD)
[2] Referring to the USA's interest in the military uses of space, a senior Chinese representative warned at the United Nations that 'outer space is now faced with the danger of being weaponized, which manifests itself in two aspects, namely, the development of the missile defense program and the "space control" plan'. Statement by Hu Xiaodi, Head of the Chinese delegation at the 2001 session of the United Nations Disarmament Commission, 10 Apr. 2001.
[3] Russia has suggested that the CD establish an ad hoc committee to negotiate a PAROS regime, which could potentially take the form of an international legal instrument. Statement by VasilySidorov, Ambassador of Russia to the CD, Conference on Disarmament document CD/PV.871, 22 Mar. 2001.
[4] Anti-Ballistic Missile Treaty (ABM Treaty)
[5] Arms Race

international cooperation in the field of new space technologies and expanded the scope of multilateral programs, such as the use of satellite remote sensing systems for environmental monitoring purposes, as well as for the benefit of developing countries, including through the voluntary transfer of this technology. "This issue was also the main objective of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space, held in Vienna in June 1999." The conference was based on the assumption that collective efforts should be directed towards achieving the common goals of humanity and that space should not be turned into a arena of competition or conflict between states.[1]

Therefore, the international community began to take measures to protect and preserve outer space for peaceful purposes more than ever before in the 1990s, through a dual approach. One of these approaches was the continued insistence on the implementation of the commitment to conduct negotiations on the prevention of an arms race, at the Conference on Disarmament, and the other was the use of the advantage of the end of the Cold War to promote international cooperation in space and provide multilateral mechanisms for this cooperation.

For this reason, in contrast to the approach taken in the past in the 1980s, the discussion of weapons was avoided at COPUS and the Third United Nations Conference on the Peaceful Exploration and Use of Outer Space. Following the conservative results of the Conference of the Committee on Disarmament during the years 1969-1978, the United Nations General Assembly, at its tenth special session in 1978[2], which was devoted for the first time to questions relating to disarmament, explicitly referred to the danger of an arms race in outer space and called upon all States to commit themselves, in accordance with the Outer Space Treaty, to participating in multilateral negotiations on the prevention of an arms race in outer space. It was decided to create a forum for international negotiations called the Disarmament Committee, consisting of the five nuclear-weapon states and 35 other states initially.[3]

In 1984, this committee was transformed into the Conference on Disarmament, which currently has 66 member states.[4] The Conference on Disarmament remains the only multilateral disarmament negotiation body of the international community. In addition to the Treaty on the Non-Proliferation of Nuclear Weapons, the Comprehensive Nuclear-Test-Ban Treaty, the Chemical Weapons Convention, the Biological Weapons Convention, the Seabed Arms Control Treaty, and the

[1] Space Debris
[2] Resolution adopted (without vote) by the United Nations General Assembly on the report of the Ad hoc Committee of the Tenth Special Session, S-10/2, 30 June 1978.
[3] ASATs, Anti-Satellite Weapons
[4] Rules of the road are rules about differentiate between rules in territorial space & in outer space as to the legal status of the areas in which satellites are put in orbit. One set of principles will apply dealing with rules applicable to the right of each state to control movement in its territory.

Convention on Environmental Change were all negotiated at the Conference on Disarmament or its predecessor (the Conference on Disarmament Committee).[1]

In this regard, the documents that can be consulted to inform the process of preventing military uses And the arms race in space is based on the following:

1. The Treaty on the Ban of Partial Nuclear Tests in the Atmosphere, in the Outer Space and in the Waters.

2. The Comprehensive Nuclear-Test-Ban Treaty.

3. The Anti-Ballistic Missile Treaty.

4. The International Convention on Radiocommunications.

5. The Convention on the Model.

6. Strategic Arms Reduction Treaty (START) 1.

7.Convention on Conventional Weapons .

8. South China Sea Treaty .

9. Convention on the Law of the Sea .

10. Outer Space Treaty .

11. Moon Convention .

12. Artemis Treaty .

In the context of familiarizing yourself with space weapons, it should be stated that: "First of all, it is important to provide a precise definition of a weapon because the lack of a precise definition can cause any state to The conformity of its armaments with international treaties and standards, and does not consider them to be evidence of the use of force, and recognizes its right to produce and develop them as unlimited.[2]

According to Article 36 of Protocol I Additional to the Four Geneva Conventions, 1977, a weapon is a means of warfare, whether defensive or offensive, which is used to destroy, injure, defeat or threaten. This definition includes weapons systems, munitions, quasi-munitions, "Provisions, targeting devices and other mechanisms for causing damage or injury"[3] Weapons are also considered to include those equipment, munitions and tools that have an offensive capability, the operational capability of the weapon being used, not its actual condition and structure.

---

[1] . Space Low

[2] Code of Conduct, The Proposed draft International Code of Conduct for Outer Space Activities is a non-legally binding, voluntary international instrument aimed at building norms of responsible behavior in space activates. This draft initially stemmed from a document proposed by the European Union under the French Presidency.

[3] . Outer Space Treaty, (OST) 1967

This type of definition of weapons includes both conventional and unconventional weapons.[1] The definition of the term (space weapon)[2] is much debated and it can even be argued that the definition Space weapons are not logical because they should encompass a wide range of space-based technologies that have dual-use characteristics. Consider, for example, a controllable satellite that can be used for a wide range of entirely non-military purposes, but can also be used to strike another satellite; thereby damaging or destroying it. According to this approach, A space weapon is any device (whether land-based, sea-based, airborne or space-based) designed to damage or destroy an object in orbit or any space vehicle designed to attack targets on the ground.[3] Also, "a space weapon is a device designed to be deployed in space, including the Moon and other celestial bodies, or to interfere with the natural functioning of an object in space.[4]Therefore, these weapons can be classified according to their geographical aspects of effectiveness and their type of operation.[5]

On this basis, space weapons can operate either from Earth to space, or from space to space, or from space to Earth. Possible modes of operation of these weapons can be kinetic energy, directed energy, and nuclear explosion.

Space weapons can be discussed in conjunction with anti-satellite weapons. began. These weapons could be either in the Earth-to-space or space-to-space group. It is also possible to discuss weapons that should be placed in space and transfer the launch projectile to the Earth.

Satellites are inherently vulnerable. They move at very high speeds so that any collision with an object, even a very small one, can be catastrophic. In addition, there is no place to hide in space. When a satellite Once in orbit, its motion is predictable.

It is therefore not surprising that a number of techniques exist for attacking satellites. For example, a nuclear explosion at an altitude of a few hundred kilometers would create an electromagnetic pulse so powerful that it could potentially destroy all unprotected satellites in orbit.[6]"

On the other hand, dual-use technologies are of concern. It has created a number of new opportunities in the areas of disarmament, non-proliferation, technology transfer, and international security. For example, missile technology can be used on one hand to launch satellites into space, and on the other

[1] Moon Agreement, 1979
[2] . Space Weapon
[3] Article 2 and paragraph (2) of Article 4 in accordance with the letter of the month
[4] The Conference on Disarmament (CD)
[5] The subsequent description of space weapons is based on Dickow (2008: 109-111), Neuneck/ Rothkirch (2005: 369–73), Neuneck/ Rothkirch (2006: 26–32), Wright/ Grego/ Gronlund (2005), Preston (2002) and von Kries/Schmidt-Tedd/Schrogl (2002: 253-256).
[6] . Moon Agreement,1979

hand to launch intercontinental ballistic missiles capable of carrying warheads.[1] As a result, states often disagree and are uncertain about whether a particular technology, for example, has peaceful uses or is subject to prohibition because of its dual use.[2]

"For example, according to military doctrine, remote sensing satellites with very high optical power have reconnaissance and reconnaissance applications that are of interest to militaries around the world to assess military power." They are enemies. Of course, these same satellites also have peaceful uses, including early detection of natural disasters such as earthquakes and floods, and land management systems, especially in the agriculture, mining, and forestry sectors.

The transfer of dual-use technologies is another important issue that has a special place in the military uses of outer space. Due to the lack of an international legal framework to monitor the transfer of these technologies, states are the only observers and regulators of the process of such transfers[3]

On this basis, the types of dual-use space weapons are: weapons of mass destruction,[4] nuclear weapons[5] Biological weapons,[6] Laser and radiation weapons,[7] Directed energy weapons,[8] and anti-satellite weapons.[9]

Application of the Principles of International Humanitarian Law to Space Law

The 21st century has witnessed a transformation in one area of international law, namely the law of armed conflict. The availability of new weapons, technological advances, and the use of modern techniques have led to

conflicts not only not falling outside the framework of international law altogether, but also, with the emergence of recent developments, to an increase in their complexity. Since the principles of the "laws

[1] The subsequent description of space weapons is based on Dickow (2008: 109-111), Neuneck/ Rothkirch (2005: 369–73), Neuneck/ Rothkirch (2006: 26–32), Wright/ Grego/ Gronlund (2005), Preston (2002) and von Kries/Schmidt-Tedd/Schrogl (2002: 253-256).
[2] Space Weapon
[3] The subsequent description of space weapons is based on Dickow (2008: 109-111), Neuneck/ Rothkirch (2005: 369–73), Neuneck/ Rothkirch (2006: 26–32), Wright/ Grego/ Gronlund (2005), Preston (2002) and von Kries/Schmidt-Tedd/Schrogl (2002: 253-256).
[4] Mass Destruction Weapons
[5] Nuclear Weapons
[6] Biological weapons
[7] Laser and radiation weapons
[8] . Directed-energy weapons, (DEW)
[9] Anti-satellite weapons, (ASAT)

of war"[1] are generally designed to regulate armed conflicts on land and are not appropriate for military operations in outer space.

On the one hand, existing rules are insufficient to protect outer space from military threats and more specific rules are needed. Nevertheless, efforts should be made to define and clarify existing principles. The deployment of weapons into outer space, whether based on Article (4) of the Outer Space Treaty, which states that "the establishment and maintenance of military bases, installations and fortifications, the testing of any type of weapons and the conduct of any type of military maneuvers in celestial bodies are prohibited," or on the basis of customary international law, must also take into account the rights and interests of other countries.

Accordingly, the deployment of military weapons into outer space requires an obligation to register information with the United Nations, in accordance with Article 4 of the Registration Convention[2], which provides that the launch, deployment and use of such weapons shall be subject to due regard for the rights and concerns of other States, both in time of peace and in time of armed conflict, and that such concerns shall be reflected in the applicable rules relating to conflicts involving space-based weapons. In times of armed conflict, a State party to a space battle must comply with its obligations under international humanitarian law with respect to non-military persons and objects in outer space. In this regard, the obligations referred to in Additional Protocol 45 are of paramount importance. Parties to the conflict must also take precautionary measures to protect non-military objects from attack.

Given that weapons systems launched into space are considered a legitimate military target and may be the target of attack, these systems should not be placed in orbits co-equal to non-military satellites. In the near future, contamination from anti-satellite weapons testing will have a wide-ranging impact on the operation of non-military and commercial satellites in orbit.

Designating protected areas or purely military zones in outer space is difficult and will be even more difficult to enforce. However, the challenge of legal rules on the use of force must be addressed and the limits of the use of space weapons systems must be determined by using systems that cause widespread destruction, contamination and explosion.[3]

Conflicts Leading to the Use of Military Space Technologies

"During the Persian Gulf War in 1990, the value of space technologies for conducting warfare was first clearly demonstrated, and Operation Desert Storm was seen as the first space war. It was recognized that the use of space technology provided an infrastructure to help implement military

[1] Jus in Bella
[2] In accordance with paragraphs 1, 2 and 3 of Article 4 of the Convention on Registration of Objects Launched into Outer Space, each registering State shall, as soon as possible, provide the Secretary-General of the United Nations with information on each space object or other object registered.
[3] Mass Destruction Weapons

strategies. Space technology played a significant role in NATO military operations in Serbia and Kosovo in 1999 and Afghanistan in 2001.[1]

In the 2003 invasion of Iraq, the United States used satellite technology (Global Positioning System)[2] to guide smart bombs. Following the September 11, 2001 attacks, the United States government issued a strategic policy document that emphasized the need for "innovation within the armed forces that relies on the analysis and testing of new approaches to warfare, will enhance joint operations, will exploit the information advantages of the United States, and will take full advantage of the advantages of science and technology emoceb sah tI noitaralceD eht ,ycilop siht fo trap largetni na sA" [3]. inevitable to maintain technological superiority in order to dominate the space dimension of military operations.[4]"

This process requires the ability to defend the country, to lead information operations; to ensure U.S. access to distant theaters of war; and to protect critical U.S. infrastructure and assets in outer space. The European Union has defined outer space as a key part of its defence and security policy.[5]

It should be noted that there is no treaty or customary source that establishes specific principles of the law of war for space warfare. The only relevant provision for the application of the laws of war to military operations in space is what was recognised by the Hague Diplomatic Conference as the "Martens Clause "[6].

This clause, named after the Russian representative who proposed it, was included in the preamble of the Second Convention of 1899 and the Fourth Convention of 1907. This provision, intended to supplement the restrictive laws adopted by both conferences, appears in several instruments on the law of armed conflict and is generally worded as follows:

Pending the establishment of a more complete body of laws of war, the States Parties to this instrument agree that, in matters not provided for in the present Convention or in other international agreements, ordinary persons and parties to the conflict shall be subject to the protection and authority of the general principles of international law as they arise from custom. Internationalism arises between civilized nations and the principles of humanity and the principles of public conscience.

According to Professor Martens, the content of this condition has a historical precedent and is rooted in the ideas and thoughts of natural law. Although this declaration is considered a legacy of the Hague Peace Conferences of the late nineteenth and early twentieth centuries in today's world, it does not mean that its principles were limited to that period and related to a specific issue. The framework and

[1] Nuclear Weapons
[2] General Positioning System (GPS)
[3] Biological weapons
[4] aser and radiation weapons
[5] Biological weapons
[6] The Martens Clause

basis of this provision have been constantly considered and referenced since its formulation and are currently applicable to all areas of humanitarian law and human rights[1].

"The existence of the doctrine defined in the Martens provision seems particularly important for space armed conflicts as the most creative type of warfare from a technological point of view, since this doctrine dynamically and implicitly foresees the need for control of the means and methods of warfare. It considers the expansion through technological advances and, regardless of what new tools or methods may be created, considers the principles and rules of armed conflict to be a part of international law arising from customs derived from the principles of humanity and the general conscience.[2]

Disarmament in Outer Space

Although many efforts were made to completely demilitarize space in the early years after the launch of the first space object, the conflicting interests of spacefaring nations prevented international convergence on the issue of "disarmament," and military competition was extended from the land, sea, and air realms to the realm of outer space.

Some jurists believe that all forms of military space warfare, such as the use of weapons of war in outer space, are contrary to the principles enshrined in Article (1) of the Outer Space Treaty and are prohibited.

Therefore, according to jurists and legal doctrine, the issue of disarmament in international law must keep pace with technological advances and adapt itself to these advances. In this regard, concern about the arms race was included in the agenda of the 38th session of the United Nations General Assembly, and two resolutions were adopted in this regard:

"The first was on the prevention of an arms race in outer space and the establishment of an ad hoc working group with a view to conducting negotiations with a view to concluding an agreement for the prevention of an arms race in all its dimensions in outer space.[3]

"In the second resolution, on the The Council was urged to consider issues related to the militarization of outer space as a priority.[4]"The existing regime of arms control and limitation in space consists solely of multilateral and bilateral agreements concluded between the United States and the former Soviet

[1] Directed-energy weapons, (DEW)
[2] Anti-satellite weapons, (ASAT)
[3] Jus in Bella
[4] In accordance with paragraphs 1, 2 and 3 of Article 4 of the Convention on Registration of Objects Launched into Outer Space, each registering State shall, as soon as possible, provide the Secretary-General of the United Nations with information on each space object or other object registered.

Union, and the Outer Space Treaty contains general provisions on disarmament. This treaty is the basis for numerous resolutions of the United Nations General Assembly on disarmament[1].

In 1984, the Disarmament Committee was renamed the Conference on Disarmament. This conference is the only one of its kind at the international level, and through its efforts, important conventions for the control of military weapons, such as the Chemical Weapons Convention and the Biological Weapons Convention, were prepared and adopted.

Despite the failure of the efforts made at the Conference on Disarmament, the rapid progress of science and technology, along with changing concepts and doctrinal and governmental perceptions of the concept of security, will make space law-related mechanisms for effectively preventing the weaponization of space a challenge. Some of the problems with these conventions are as follows: First, none of these instruments can prevent the testing, deployment, or even use of weapons, other than weapons of mass destruction, in Earth orbit and outer space, except for celestial crimes.

Secondly, these instruments lack any provisions on issues such as threats or use of force, even though the origin of such threats or acts of aggression is from the ground, unless we consider the provisions of Article (3) of the Outer Space Treaty to be applicable in this context. Thirdly, some treaties, such as the Moon Agreement, have not met with widespread acceptance by States, which can be inferred from the small number of States parties to these instruments.[2] This The agreement was drafted to include the moon and other celestial bodies in the legal regime of the seabed as contained in the Convention on the Law of the Sea[3].

"The issue of arms control and disarmament is one of the issues that has been examined in the last two centuries, especially after the Second World War, at the three levels of nuclear, chemical and biological weapons, and by the United Nations, the two countries of the United States and the Soviet Union, and other countries and regional and international organizations.

With this description, human society has not yet achieved all the goals set in the field of disarmament and arms control.[4]

Conclusion.

Since we know that various aspects of the military use of space and its equipping with advanced weapons not only lead to the consolidation and demonstration of the space power of advanced states in this field, but also lead to an arms race in outer space.

---

[1] Additional Protocol to the Geneva Conventions of 12 August 1949 and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June, 1977, 1125 U.N.T.S. 3.
[2] General Positioning System (GPS)
[3] The Martens Clause
[4] H. Sharifi Taraz Koohi, and H. Goodarzi Raouf, "Analysis of the right of states in the production and development of military weapons from the perspective of international law", Quarterly Journal of Security Horizons, No 10, Vol. 36, P.P 153-179, 2018 .

This is despite the fact that, according to superior space powers, the military use of space and the exploitation of space systems to destroy military targets through military means based on the ground, and vice versa, are fully consistent and compatible with the principles of public international law, and only the placement of weapons in space is contrary to these rights. In fact, the debate is not about the military use of space versus the purely peaceful use of space, but rather about the military use of space versus the weaponization of space, and this reality is the prevailing bitterness over space activities and space rights in the present era.

On the other hand, major space powers such as the United States and Russia, through their extensive and increasing competition in space and the advancement of military activities, pursue a major goal, which is to achieve a superior position and exercise power in this territory. As a result, in order to legitimize these actions, they decided to exclude some weapons from the scope of these prohibitions by providing a broad interpretation of space legal documents. In this way, it is possible to examine the legal regime governing military relations in space legal documents and to measure and estimate the capacities for peaceful use of outer space, which determines the prohibited boundaries of these uses, and on the one hand, by recognizing the types of military space technologies and weapons that have been used by some of the leading space countries since the beginning of space activities.

Recognize conflicts involving the use of military space technologies and apply the principles of international humanitarian law to these conflicts to the extent possible. The important issue of space disarmament should be included in the mandate of the COPUS and its Legal Subcommittee and pursued more seriously than in the past. Therefore, in order to prevent some space powers from achieving dominance in the space arena, prominent jurists, using appropriate legal doctrine, in addition to having a correct and impartial interpretation of the provisions of international law treaties, especially the emerging international law of space, must also properly analyze the types of military applications in space. These are some of the applications that not only provide reasons for increasing legal disputes between states, but also foster non-peaceful uses of outer space.

References

5A/Res. 38/70, December 15, 1983, adopted on the report of the First Committee, p. 61.

A. Haley, Space Law and Government , NewYork, Appleton-Century-Crofts, p. 38, 1963.

A. Momeni Rad, SeiyedianHashemi, International Space Law , Tehran: Khorsandi Publications, P. 6, 2017

A. Vlasic, S pace Law and the Military Applications of Space Technology, in Perspectives on International Law , London, Kluwer Law International, p. 386 ,1995.

A.K. Shams, Legal Requirements of the National Space Law of Iran, Thesis. M.Sc., Department of Public Law. University of Tehran, P 55, 2018.

A/Res.1962 (XVIII), December 13, 1963, General Assembly 18th session.

A/Res.38/80, December 15, 1983. p. 98.

Australian Department of Defense, "Defense Instruction (General) OPS 44-1: Legal Review of New Weapons ", 2 June, p. 1, 2005.

B Saburi. "Study of military activity of governments in outer space from the perspective of international law", (Thesis M.Sc), International Law, Faculty of Law, Islamic Azad University, Damghan Branch, P 30 , 2013

B. Cheng, 'Custom: the future of general state practice in a divided world , in McDonald and Johnston, the structure and process of international law: essays in legal philosophy doctrine and theory, Martinus Nijhoff publishers, P. 513, 1983.

D. Blake., and JS. Imburgia, "Bloodless weapons ?", The Need to Conduct Legal Reviews of Certain Capabilities and the Implications of Defining Them as Weapons. Air Force Law Rev , vol. 66, P.P. 157-191, 2010.

Diplomatic Conference on Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflict: Protocols I and II to the Geneva Conventions art. vol. 1, no. 2, 8 June 1977, 16I.L.M. pp. 1396-97.

E. Aminzadeh, Y. Hosseini, R. Baqerzadeh, and Et al. International Space Law;Outer Space Treaty, First Edition.Tehran: University of Tehran Press, pp. 126-127, 2013

F. Lyall ., A treatise on the law of space . Translated by Seyed Mohammad Hosseini, Tehran: Majd Scientific and Cultural Association Publishing, P 70, 2015 (in Persian).

F. Razipour ., International Law and Military Exploitation of Outer Space , First Edition. Tehran: Khorsandi Publications, P.P 90-91, 221, 2015

F. Razipour, and M. Najafi Asfad,."International Humanitarian Law and Military Exploitation of Outer Space", Journal of Space Science and Technology , Vol. 3 & 4, Issue 4, P.P 47-62, 2011

G.M. Goh, "Keeping the Peace in Outer Space-A Proposed Legal Framework", vol 20, Issue 4, Space Policy, pp. 259- 278, 2004.

H. Mahmoudi, International Space Law . Tehran: Samt Publications; Humanities Research and Development Center, P.P 71-72, 2019

H. Navadeh Topchi, International Space law. Tehran: Samt Publications; vol 1, Publications of the Army Ideological Political Organization, p. 13, 2000 (in

H. NejandiManesh, Y. Babaei, and I. Yaqubi, Translation of a collection of international space law documents .Tehran: Khorsandi, pp. 16-17, 2016

H. Sharifi Taraz Koohi, and H. Goodarzi Raouf, "Analysis of the right of states in the production and development of military weapons from the perspective of international law", Quarterly Journal of Security Horizons , No 10, Vol. 36, P.P 153-179, 2018 (in Persian).

I. Brownlie, Principles of Public International Law , Oxford, Clarendon Press, p. 5. 1990.

J. Maogoto, and S. Freeland, "The Final Frontier: "The Laws of Armed Conflict and Space Warfare", Connecticut Journal of International Law , Vol. 23, Issue1, pp. 1-40, 2007.

J.C. Moltz, and M. John, The Politics of Space Security. Strategic Restraint and the Pursuit of National Interests, Stanford, CA: Stanford University Press , pp. 42-43, 2008.

Jasentuliyana , Nandasiri., International space law and United Nation s, The Hague, Netherland; Boston: Kluwer Law International, P. 81 , 1999.

Letter of Foreign Minister Andrei Gromyko's to General- Secretary Kurt Waldheim "Consideration of a treaty on the prohibition of the stationing of weapons of any kind in outer space", UN Doc. A/RES/36/192, 20 August, 1981.

M Sadeghi, and L. Raisi. "Commercial Activities in Outer Space by the Private Sector from the Perspective of Space Law", Quarterly Journal of Private and Criminal Law Research , Spring 1997, Vol. 35, P.P 137-154. 2019.

M. Talebian Kiaklayeh, "Study of the progress of space law and the status of Iran", (Thesis M. Sc.) Department of Law, International Law, Faculty of Humanities, Islamic Azad University, North Tehran Branch, pp.34-35, 2013

M.M Mutschler " keeping space safe Towards a long-term strategy to arms control in space ", PRIF Report 98, Peace Research Institute Frankfurt (PRIF), P.P. 1-4, 2010.

M.R Hosseini, "Legal Requirements of Arms Prohibition in Space Agreements ", Journal of Strategic Defense Studies , Winter 1990, Vol.46, P.P 1-17, 1990

Nys., " Development and Formation of International Law, " The American Journal of International Law , vol. 6, no.2, Cambridge University Press, 1912, pp. 279-332.

P. Darbandi, "International Responsibility of Governments for Space Activities", Journal of the Bar Association of Justice , New Edition;Spring and summer 2016,Vol 37 & 38, P.P 45-78 , 2016

R. Bledsoe, and B. Boczek, Culture of International Law . Translation: Dr. Bahman Aghaei. First Edition, 1997, Tehran: Ganj -e-Danesh Publications, P.210 (in Pershian).

R. Ramey, "Armed conflict on the final frontier: the law of war in space".48 Air force law review, P. 55, 2000.

R. Tucehurst, "The Martens Clause and the Laws of Armed Conflict", International Review of the Red Cross (1961- 1997) 37, no. 317, pp. 125-134, 1997,at:www.icrc.org/Web/Eng/siteeng0.nsf/html/57JN HY, last visit at: Oct. 2009.

Report of "the Committee on the Peaceful Uses of Outer Space", General Assembly, Official Records: Thirty- Eighth Session. UN Doc. A/38/20, para. 77, 1983, Jasentuliyana, op. cit., 1999, p. 84.

Report of "the Second United Nations conference on the exploration and peaceful uses of outer space", UN Doc. A/CONF. 101/10, Vienna, 9-21 August 1982, p. 102.

Report of "the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space", General Assembly, UN Doc. A/CONF.184/6. Vienna, 19-30 July 1999, p. 20.

S. Hobe, "The Relevance of Current International Space Treaties in the 21 st Century", Annals of Air and Space Law , Vol. XXVII, P. 340, 2002.

S. Madadi, and Z. Kazempour , "Study of military and weapons impact of Outer Space on the military security of the Islamic Republic of Iran with a Futuristic Approach ", Quarterly Journal of Military Science and Technology , No 15, Vol 47, Spring 98, P.P, 79-101 , 2020

S. Mosteshar, "Militarization of Outer Space: Legality and Implications for the Future of Space Law", 47th Proceedings of the Colloquium on the Law of Outer Space, Vancouver , Canada, 2004, p. 473.

The National Security Strategy of the United States of America, art. IX at: www.whitehouse. gov/nss/nss.html, last visit at: Oct.2007

The resolution on "Conclusion of a treaty on the prohibition of the stationing of weapons of any kind in outer space", UN. Doc. A/RES/36/99, 9 December, 1981.

The resolution on "General and complete disarmament", UN. Doc. A/36/97, 9 December, 1981.

The United Nation in the heart of Europe, at: www.unog.ch/80256EE600585943/(httpPages)/6286395 D9F8DABA380256EF70073 A846? Open Document, Last visit at August, 2011.

UN Doc. A/RES/2602 B (XXIV), 16 December 1969.

V.S. Vereshchetin, and G.M. Danilenko " Custom as a Source of International Law of Outer Space, " J. Space L . 13, p.22, pp. 22-35, 1985

W. Boothby, Weapons and the Law of Armed Conflict , Oxford University Press, P.344, 2009.