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INTERNATIONAL LAW AND MILITARY ACTIVITIES IN OUTER SPACE

ROBERT L. BRIDGE*†

I. INTRODUCTION

THE OBJECT of this review is to establish definitively the legal constraints which currently apply to military activities in space. Research has disclosed no single reference less than eight years old which examines all the issues to be discussed here. A great flurry of scholarly legal writing attended the launching of the Russian Sputnik in 1957, but comparatively little has been written since the late 1960's. Thus, much of the source material cited here is ten to fifteen years old.

A. *Method of Inquiry*

The most important sources of international law governing United States military activities in space are the bilateral and multilateral treaties to which the United States is a party.¹ This review will accordingly begin with a survey and discussion of those treaties controlling weapons which impact on outer space activities. The space treaties will then be surveyed and pertinent provisions of the Outer Space Treaty² will be discussed in detail.

The United Nations Charter has been made specifically applicable to the activities of States in the space environment. The effect of its provisions on the threat or use of force and self-defense will be examined.

Certain principles of customary international law have potential applicability in space. However, there are differences of opinion concerning the efficacy of attempts to apply principles borrowed from one legal regime to another medium. The regimes which are most nearly comparable to

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†The opinions and conclusions expressed in this article are those of the author and do not necessarily represent the views of the Department of Defense, the Department of the Air Force or the United States Government.

¹ See generally Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, Jan. 27, 1967, 18 U.S.T. 2410, T.I.A.S. No. 6347, 610 U.N.T.S. 205 (effective Oct. 10, 1967); Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, (1968) 19 U.S.T. 7570, T.I.A.S. No. 6599, 672 U.N.T.S. 119 (effective Dec. 3, 1968); and Convention on the International Liability for Damage Caused by Space Objects, (1972) 24 U.S.T. 2389, T.I.A.S. No. 7762 (effective Oct. 9, 1973).

² Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, Jan. 27, 1967, 18 U.S.T. 2410, T.I.A.S. No. 6347, 610 U.N.T.S. 205 (effective Oct. 10, 1967). (Hereinafter cited as Outer Space Treaty.)

space law are the law of the sea and air law. Various opinions concerning analogous principles from those regimes will be reviewed.

Several schools of thought exist on the question of whether United Nations resolutions have the force and effect of law binding upon the member nations. These views will be examined briefly in connection with resolutions dealing with the exploration and use of outer space.

The aim of all these inquiries will be to derive conclusions regarding what specific "laws" apply to military activities in the space environment. However, an unresolved basic issue in space law; namely, the definition of "outer space," must be examined first.

B. *Airspace Versus Outer Space*³

There is no established boundary between airspace and outer space. This is both a scientific and a legal problem. The lack of delineation is of considerable significance in view of the universally accepted principle of international law that each State may exercise absolute sovereignty over the airspace above its territory and territorial waters. This principle, antecedents of which are found in Roman law, was applied in the practice of nations during World War I and found expression in the 1919 Paris Convention for Regulation of Aerial Navigation and its Protocols. The Convention recognized the "complete and exclusive sovereignty" of the subjacent State over the airspace above its territory, and the right of the subjacent State to exclude foreign aircraft from that airspace.⁴ Although the United States was not party to the 1919 Paris Convention, later conventions to which it was a party recognized this right of sovereignty over airspace.⁵ In fact, the practice of all nations in subsequent years has been in accord with the principle. There are both security and economic reasons for this universal acceptance.

In view of this principle of customary law, a question of great importance to legal scholars in the pre-Sputnik days was: "How high is up?" Earth-orbiting flights were at hand and no natural or artificial ceiling on national sovereignty had been established. Many theories were explored and advocated and several are still being discussed today. They are based either upon completely arbitrary distances from earth⁶ or distances which are a function of such criterion as the height at which a human can live

³ One of the best and most extensive treatments of this issue is found in LAY & TAUBENFELD, *THE LAW RELATING TO ACTIVITIES OF MAN IN SPACE* 36-51 (1970). Reference to this work will continue throughout the review, as it is the most recent exhaustive treatment of the issues discussed herein.

⁴ Convention Relating to the Regulation of Aerial Navigation (Paris 1919), 11 L.N.T.S. 173-180 (1922).

⁵ See, e.g., Convention on International Civil Aviation (Chicago 1947), 61 Stat. 1180, T.I.A.S. No. 1591, 15 U.N.T.S. 295 (April 4, 1947).

⁶ E.g., thirty miles, 500 miles, infinity.

without breathing aids (two miles) or the limit of atmospheric lift (fifty-two miles). Andrew Haley, a noted authority on areospace law, long advocated adoption of the "von Kármán line" suggested by and named for Dr. Theodore von Kármán, onetime Chairman of the Advisory Group for Aeronautical Research and Development of NATO. It is described as a median measurement of the distance from earth "where an aeronautical vehicle no longer may perform and where molecular oxygen dissociates and airspace no longer exists (approximately 275,000 feet)."⁷

Haley's argument at least has a scientific basis, but it has not gained a significant following; nor has any other proposal. Another view expressed by John Cobb Cooper, an early authority on aerospace law, is much more pragmatic. "[A]t any particular time the territory of each State extends upward into space as far as the scientific progress of any State in the international community permits such State to control the space above it."⁸ While this "might-makes-right" approach has rational appeal, it would be political folly for any State to make such an assertion. To key sovereignty to this concept would be to invite conflict, as the only way to effectively assert sovereignty would be to attack the intruder.⁹

The debate about the upper limits of airspace in which sovereignty may be exercised was partially mooted with the launching of Sputnik by the Soviets in 1957. In their failure at that time to object to the overflight of the orbiting satellite, the subjacent States gave their tacit consent, thus refuting any violation of national sovereignty.¹⁰ A similar lack of objection by any nation to any subsequent satellite overflights has firmly established a free flight principle in outer space.¹¹

Orbital flight now appears to be an accepted fact in outer space. However, the debate on the question of where outer space begins and sovereignty ends continues. What is the significance then of the issue? Several problems or potential problems are presented by this lack of an accepted line of demarcation between airspace and outer space.

One problem for military planners is the fact that no State has asserted that the free flight principle for objects in outer space includes the right of passage of such objects through the still sovereign airspace. Unless

⁷ HALEY, *SPACE LAW AND GOVERNMENT* 78 (1963).

⁸ Cooper, *High Altitude Flight and National Sovereignty*, 24 INT'L L.Q. 411, 418 (1951).

⁹ Note, *National Sovereignty of Outer Space*, 74 HARV. L. REV. 1154, 1165 (1961).

¹⁰ Provost, *Law of Outer Space - Summarized*, 19 CLEV. STATE L. REV. 595, 599 (1970).

¹¹ Haley asserts that the principle was actually established on July 29, 1955 with the announcement by the U.S. National Science Foundation that it planned to launch an earth-orbiting satellite as part of the International Geophysical Year. The announcement was received with general international acclaim and no State complained about the obvious overflight implications of such a satellite. Thus in Haley's view the free flight principle was established by the general consent of nations even before orbital flight took place. HALEY, *supra* note 7, at 65-67.

special rights are granted by the subjacent State by treaty or some other method, passage of a space vehicle through its airspace would apparently be considered a violation of its sovereignty. While United States launches and recoveries have heretofore been conducted in international airspace or within areas where the United States is sovereign, future requirements such as the controlled landings of the Space Shuttle, may make the use of another nation's airspace desirable.

Another problem related to the upper-limits-of-sovereignty question is the claim of seven equatorial States to sovereignty over the geostationary synchronous orbit, 22,300 miles above the earth. This claim, asserted jointly in the Bogota Declaration¹² in 1976, is an attempt by the States involved to exercise control over a limited space resource.¹³ Although there is little sympathy among the majority of nations for the claim of these seven States, it does highlight difficulties which may lie ahead due to the lack of definition and delineation of outer space and airspace.

In a comment which appears to have continuing validity, Lay and Taubenfeld note:

A stable, workable legal definition of outer space is not yet politically acceptable, partly because not enough is known definitely about potential strategic uses and controls over space technology to offer promise of making a legal definition both "safe" for all nations and operationally reliable.¹⁴

Until such a definition becomes politically viable, the general consensus seems to be that the boundary between airspace and outer space lies somewhere between twenty-five miles (the height which can be reached by vehicles which depend on reaction of the air to maintain flight) and eighty miles (the closest distance which presently orbiting vehicles can come to the earth's surface and still maintain orbital speeds).

II. TREATY CONSTRAINTS

Most legal constraints upon United States military operations in space stem from treaty obligations directly assumed by the United States government. There are both bilateral and multilateral treaties which have application. In addition to the Outer Space Treaty, several weapons treaties have a restrictive effect. Before discussing those treaties in detail some general observations on the legal effect of treaties is appropriate.

A treaty, as such, is generally binding only upon the contracting

¹² Declaration of Bogota, December 3, 1976. For text, see 6 J. SPACE L. 169 (1978).

¹³ For an excellent evaluation of the scientific and legal bases of the claim, see Rosenfeld, *Where Air Space Ends and Outer Space Begins*, 7 J. SPACE L. 137, 141 (1979).

¹⁴ LAY & TAUBENFELD, *supra* note 3, at 48.

parties.¹⁵ However, provisions of a treaty may be simply declaratory of customary international law; or, although not a statement of international law at their inception they may become such with the passage of time through general acceptance by the other nations.¹⁶ Provisions of a treaty which are simply declaratory of international law do not lose their binding effect with abrogation of or withdrawal from the treaty by the parties thereto. But provisions which do not reflect established international law cease to be binding on the contracting parties when they cease to be bound by the treaty.¹⁷

In United States practice, treaties are a part of the Supreme Law of the Land, and as such, binding upon all citizens.¹⁸

A. *Weapons Treaties*

Those weapons treaties which have direct application to military activities in outer space are chronologically as follows: Nuclear Test Ban Treaty,¹⁹ ABM Treaty,²⁰ and Interim SALT.²¹

1. The Nuclear Test Ban Treaty. This treaty is multilateral in nature and represents an undertaking by the parties not to carry out nuclear weapon test explosions, or any other nuclear explosions in outer space. It is of unlimited duration, but any party has the right to withdraw from the treaty upon three months notice if it decides that extraordinary events have jeopardized its supreme interests. The treaty does not address verification.

2. The ABM Treaty. This bilateral treaty with the Soviet Union is one of the most specifically restrictive of the weapons treaties. In article V it prohibits, without qualification, the development, testing or deployment of space-based antiballistic missile systems or components by either country. Article II defines an ABM system as a system to counter strategic ballistic missiles or their elements in flight trajectory. Such systems are said to consist of ABM missiles, launchers and radars. These components are prohibited if constructed and deployed for an ABM role.

¹⁵ 1 HACKWORTH, DIGEST OF INTERNATIONAL LAW 17 (1940).

¹⁶ *Id.* at 17.

¹⁷ *Id.* and Vienna Convention on the Law of Treaties, May 23, 1969, as found in 3 INTERNATIONAL LEGAL MATERIALS 679 (1969). The Vienna Convention has not been ratified by the United States.

¹⁸ U.S. CONST. art. VI, cl. 2.

¹⁹ Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space, and Under Water, Aug. 5, 1963, 14 U.S.T. 1313, T.I.A.S. No. 5433, 480 U.N.T.S. 43 (effective Oct. 10, 1963).

²⁰ Treaty With the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems, May 26, 1972, 23 U.S.T. 3435, T.I.A.S. No. 7503 (effective Oct. 3, 1972).

²¹ Interim Agreement With the Union of Soviet Socialist Republics on Certain Measures with Respect to the Limitation of Strategic Offensive Arms with Protocol, May 26, 1972, 23 U.S.T. 3462, T.I.A.S. No. 7504 (effective Oct. 3, 1972). Note: By its terms the Interim Agreement expired in October 1977. Both parties, however, made unilateral declarations of their intent to continue to be bound by the Interim Agreement pending conclusion of SALT II negotiations.

Under article VI a Party may not avoid the strict limits and controls on ABM missiles, launchers or radars by giving other missiles, launchers or radars capabilities to counter strategic ballistic missiles or their elements in flight trajectory, or testing them in an ABM mode. Nor may this be done by making future deployments of early warning radars, except along the periphery of the party's national territory and oriented outward.

In article XII provision is made for the use of national technical means of verification of compliance with the treaty, to be accomplished "[i]n a manner consistent with generally recognized principles of international law." The parties are not permitted to intentionally interfere with each other's national technical means. Thus to destroy or disable an inspection satellite of the other party would violate the treaty.

Significantly, the reported development of an antisatellite (ASAT) system by the Soviets has not been viewed as a violation of article XII. In 1978 Secretary of State Vance indicated that the treaty does not prohibit the development or deployment of ASAT systems; it is only the actual use of ASAT against United States national technical means that is prohibited.²²

The ABM treaty is of unlimited duration, providing for withdrawal of a party on six months notice if it decides that extraordinary events have jeopardized its supreme interests.

3. Interim SALT. The purpose of the Interim SALT agreement was to limit the number of strategic launchers and the total numbers of modern ballistic missile submarines in the arms inventories of both countries. Article V contains provisions similar to those found in article XII of the ABM Treaty with respect to national technical means of verification.

B. *Space Treaties*

Since the advent of manned space flight the United States has entered into a number of international agreements related to activities in space. Of the multilateral agreements the most important are the Outer Space Treaty,²³ the Astronaut Return Agreement,²⁴ the Liability Convention²⁵ and the Regis-

²² *Compliance with SALT One Agreements*, attachment to Letter from the Secretary of State to the Chairman, Senate Committee on Foreign Relations (Feb. 21, 1978), in Selected Documents (No. 7), THE DEP'T. OF STATE 10.

²³ Outer Space Treaty, *supra* note 2, at 2410.

²⁴ Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, Apr. 22, 1968, 19 U.S.T. 7570, T.I.A.S. No. 6599, 672 U.N.T.S. 119 (effective Dec. 3, 1968).

²⁵ Convention on the International Liability for Damage Caused by Space Objects, Mar. 29, 1972, 24 U.S.T. 2389, T.I.A.S. No. 7762 (effective Oct. 9, 1973).

tration Convention.²⁶ In this review the Outer Space Treaty (OST) will be the only agreement examined in detail.

The OST did not break any new ground when it was signed in 1967. It represented a codification of certain principles applicable to outer space which had gained general acceptance by members of the United Nations and which had been previously expressed in the form of U.N. resolutions.²⁷

Article I confirms the general principle that the exploration and use of outer space is to be carried out for the benefit of all mankind, by States on the basis of equality, with free access to all areas of celestial bodies.²⁸ International cooperation in scientific investigation is encouraged.²⁹

Under article II, "Outer Space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means."³⁰ While this provision does not resolve the issue discussed above as to where outer space begins, it effectively recognizes the free flight principle for satellites in orbit.³¹

International law and the United Nations Charter are made specifically applicable in outer space and on the moon and other celestial bodies by article III.³²

Article IV is the key provision applying to military activities in space. The first paragraph prohibits placing nuclear or other kinds of weapons of mass destruction in earth orbit, the installation of such weapons on celestial bodies, or the stationing of such weapons in outer space in any other manner. The provision is not intended to outlaw the use of ICBM's with nuclear warheads, as a full orbit, rather than a sub-orbit or fractional orbit, is implied.

One commentator has suggested that the prohibition against weapons of mass destruction in article IV relates only to the objects that transport such weapons, and not weapons themselves.³³ This appears to be a distinction without a difference. The same writer also discusses the use of the words "station" and "install,"³⁴ asking if the mere presence of a nuclear weapon

²⁶ Convention on Registration of Objects Launched into Outer Space, Jan. 14, 1975, 28 U.S.T. 695, T.I.A.S. No. 8480 (effective Sept. 15, 1976).

²⁷ The legal effect of U.N. resolutions will be discussed in Section V, *infra*.

²⁸ Outer Space Treaty, *supra* note 2, at 2410.

²⁹ *Id.*

³⁰ *Id.*

³¹ Some authors have indicated that article II raises a question as to whether use of geostationary orbits over a fixed point on earth is an "appropriation" and thus illegal under the treaty. For a discussion see Prevost, *supra* note 10, at 607. Such a view appears to be in a decided minority.

³² The implications of this article will be discussed in Sections III and IV, *infra*.

³³ Gorove, *Arms Control Provisions in the Outer Space Treaty: A Scrutinizing Reappraisal*, 3 GA. J. INT'L AND COMP. L. 114, 117 (1973).

³⁴ *Id.* at 116.

on a celestial body is the "installation" of that weapon thereon. He says that "station" in the context of article IV should be interpreted to include the placing of a weapon in a fixed orbit over a celestial body. The implication of such interpretation is that the treaty does not bar the temporary "parking" of weapons of mass destruction on a celestial body; nor does it prohibit orbiting such weapons around a celestial body so long as their orbits are not synchronous with the rotation of that body. This latter view belies the plain meaning of the word "station," i.e., to place in an assigned position. In space, position must be considered in relative terms. Weapons in space would be "stationed" in some fixed relationship to their intended target, whether it be a terrestrial target or one located in space. By the very nature of space both the target and the weapon are always moving. As to the meaning of the word "install," there are very few writers; and, more importantly, very few national leaders who doubt that the intent of the first paragraph was to deny all countries the right to place weapons of mass destruction on any celestial body for any length of time, no matter how short. This position is in keeping with the second paragraph of article IV which reserves the moon and other celestial bodies for peaceful purposes.³⁵

A more substantive question of interpretation with regard to paragraph 1 of article IV is the meaning of the phrase "any other kinds of weapons of mass destruction." Although vague, there has apparently been very little controversy to date concerning the phrase. The generally accepted view is that "weapons of mass destruction" include nuclear, chemical and biological weapons.³⁶ Beyond that, contemporary arsenals apparently contain no weapons barred by article IV. The question of interpretation of the phrase came up in the Senate Foreign Relations Committee hearings on the OST.³⁷ U.N. Ambassador Goldberg testified in response to a question by Senator Carlson: "This is a weapon of comparable capability of annihilation to a nuclear weapon, bacteriological. It does not relate to a conventional weapon."³⁸

A slightly broader view was expressed during the same hearings by the Deputy Secretary of Defense as follows:

Senator Cooper. The treaty refers to weapons of mass destruction as well as nuclear weapons. Can you give us some statement about that?

³⁵ Outer Space Treaty, *supra* note 2, at 2410.

³⁶ Mallison, *The Laws of War and the Juridical Control of Weapons of Mass Destruction in General and Limited Wars*, 36 GEO. WASH. L. REV. 308 (1967).

³⁷ *Hearings on the Outer Space Treaty Before the Senate Foreign Relations Committee*, 90th Cong., 1st Sess. 76 (1967). (Hereinafter cited as *Hearings*).

³⁸ *Id.* This view is shared by Dr. Poulantzas, who has stated that, as used in the OST, "weapons of mass destruction" meant "bacteriological weapons or other kinds of weapons which may produce the same destructive effect as nuclear weapons." See Poulantzas, *The Outer Space Treaty of January 27, 1967, and Its Aftermath*, 11 PROCEEDINGS, COLLOQUIUM ON LAW OF OUTER SPACE 50, 51 (1968).

Mr. Vance, Yes, I believe it would include such other weapons systems as chemical and biological weapons, sir, or any weapon which might be developed in the future which would have the capability of mass destruction such as that which would be wreaked by nuclear weapons.³⁹

Clearly then, biological weapons are included within the definition; and, less clearly perhaps, chemical weapons would be included. Other known weapons in today's arsenals would not be included. However, orbiting of future weapons with effects similar to nuclear weapons may well be determined to be prohibited. The testing, orbiting, or stationing of traditional conventional weapons is not barred by the first paragraph of article IV.⁴⁰

The second paragraph of article IV requires that all parties use the moon and other celestial bodies "exclusively for peaceful purposes." No military bases, installations or fortifications may be established on celestial bodies. The testing of any type of weapon is prohibited on celestial bodies, as is the conduct of military maneuvers. These prohibitions are not intended to apply to man-made objects in space, but only to natural celestial bodies found there. Neither do these restrictions apply to space itself, as opposed to those celestial bodies within space.

Article XII affords a limited right of inspection of all stations, installations, equipment and space vehicles on celestial bodies belonging to one party by representatives of another on the basis of reciprocity.⁴¹ This could act as a check on illegal activities, however, advanced notice of a projected visit is required and, of course, the inspecting State would have to provide transportation for its representatives. While the OST allows inspection on celestial bodies, it is silent with regard to inspection of man-made objects not located upon celestial bodies.

The right of a party to use military personnel for scientific research or any other *peaceful* purpose is recognized in article IV. This provision, which parallels a similar provision in a prior treaty, is a recognition of "[t]he realities of the situation since our astronauts, for example, are primarily military personnel. . . ."⁴² The difficulty with the use of this "peaceful purpose" wording is that it is virtually impossible to make a distinction between military and nonmilitary activities, as almost every activity has military connotations.⁴³ The meaning of the word "peaceful" in the space context has led to disagreements among scholars and statesmen

³⁹ *Hearings, supra* note 37, at 100.

⁴⁰ LAY & TAUBENFELD, *supra* note 3, at 27.

⁴¹ Outer Space Treaty, *supra* note 2, at 2410.

⁴² Testimony of Ambassador Goldberg, *Hearings, supra* note 37, at 22.

⁴³ JONES, EARTH SATELLITE TELECOMMUNICATIONS SYSTEMS AND INTERNATIONAL LAW 30 (1970).

alike. As Lay and Taubenfeld point out, while most writers and government spokesmen are in agreement that man's use of outer space should be confined to peaceful purposes, they lack an agreed-upon definition of "peaceful."⁴⁴

Historically and consistently the United States has argued that in the context of space activities "peaceful" means non-aggressive⁴⁵ The Soviets, on the other hand, in the early days of space flight argued that "peaceful" meant nonmilitary.⁴⁶ In more recent times the Soviets, due no doubt to their own heavy military involvement in space, no longer emphasize such a definition.⁴⁷ The Soviets' actions do not comport with their expressed views on the subject. Regardless, the two major space powers in current practice, if not in public pronouncements, seem to view "peaceful" as used in the OST to include virtually any non-aggressive use of the medium. Alex Meyer, a German air and space law expert, describes this view in the following terms:

[a]ny use of space which does not itself constitute an attack upon, or stress against, the territorial integrity and independence of another State, would be "permissible." Military manoeuvres in peacetime, the use of reconnaissance satellites, the testing of weapons, the establishment of Military Orbiting Laboratories (MOLs), etc., would therefore be also permissible in Outer Space. These activities belong to the so-called "peaceful military activities."⁴⁸

This practice is in keeping with normal usage of the word "peaceful." The high seas and the airspace above the high seas have always been considered available under international law for peaceful military uses, which include maneuvers, weapons testing and surveillance.⁴⁹

However, in the context of paragraph 2 of article IV, as in later agreements,⁵⁰ the words "peaceful purposes" have been given a somewhat more restrictive meaning than the word "non-aggressive." While it is clear that the provision is not intended to equate peaceful activities with non-

⁴⁴ LAY & TAUBENFELD, *supra* note 3, at 97.

⁴⁵ Katzenbach, *The Law in Outer Space*, in LEVY, *SPACE: ITS IMPACT ON MAN AND SOCIETY* 77 (1965).

⁴⁶ Zhukov, *Practical Problems of Space Law*, 9 INT'L AFF. (Moscow) 27, 28 (1963).

⁴⁷ LAY & TAUBENFELD, *supra* note 3, at 99. The authors continue to explain that the Soviets now seem to talk in terms of warlike acts of the United States, thus branding them as "illegal."

⁴⁸ Meyer, *Interpretation of the Term 'Peaceful' in the Light of the Space Treaty*, 11 PROCEEDINGS, COLLOQUIUM ON LAW OF OUTER SPACE 24, 27.

⁴⁹ The effects of law of the sea and air law principles on the space regime will be further discussed in Section IV, *infra*.

⁵⁰ LAY & TAUBENFELD, *supra* note 3, at 99 n. 207, 208.

military activities,⁵¹ it does expressly prohibit certain activities on celestial bodies which do not necessarily qualify as aggressive.⁵²

Another OST provision of significance to this review is article VIII, which codifies the principle that ownership of space objects is retained by the launching State. This ownership continues whether the object is in outer space, on a celestial body or has returned to a location on earth outside the limits of the launching State.

Finally, the OST permits any party to withdraw from the Treaty upon written notification, the withdrawal to become effective one year after such notification.

III. APPLICATION OF UNITED NATIONS' CHARTER IN SPACE

As mentioned previously, the OST makes the United Nations' Charter expressly applicable to the exploration and use of outer space, the moon and other celestial bodies. With regard to military activities the most important aspect is the application of Charter provisions covering aggression and self-defense.

A. Aggression

In its first article the Charter⁵³ states as one of the purposes of the United Nations the suppression of acts of aggression or other breaches of the peace. Article 2(4) requires that all members refrain from the threat or use of force in their international relations against the territorial integrity or political independence of any State.

Arguably, "territorial integrity" as used in article 2(4) may refer not only to the land mass of a State, but also to its human and natural resources

⁵¹ *Hearings, supra* note 37, at 148. Ambassador Goldberg in his written statement to the Senate Foreign Relations Committee asserted that "In the area of arms control . . . It specifies that the moon and other celestial bodies are to be used only for peaceful purposes and forbids *certain* military activities on celestial bodies" (*emphasis added*). To like effect see *Id.* at 151 where the Ambassador reaffirms that the Outer Space Treaty prohibits "[u]se of celestial bodies for *specified* military activities." (*Emphasis added.*) See also, *Treaty on Outer Space and Celestial Bodies*, 56 DEPT. STATE BULL. 577 (1967) (statement of President Johnson), and Staff of Senate Comm. on Aeronautical and Space Sciences, 90th Cong. 1st Sess., *Report on Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies* 11 (Comm. Print 1967), where it is stated that "[I]n the United States, 'peaceful' is not regarded as the opposite of 'military' - we think of 'peaceful' as 'not aggressive.'" *But see id.* at 25 where it is stated that "It is generally believed to be in the interest of long-range peace plans and arms control to try to ensure that the moon and other celestial bodies will be non-nuclear, *non-military* zones." (*Emphasis added.*)

⁵² *E.g.*, establishment of military bases, installations, and fortifications, the testing of any type of weapons, and the conducting of military maneuvers.

⁵³ U.N. CHARTER, June 26, 1945, 59 Stat. 1031, T.S. No. 993, 3 Bevans 1153 (effective Oct. 24, 1945); Amendments: 16 U.S.T. 1134, T.I.A.S. No. 5857, 557 U.N.T.S. 143 and 19 U.S.T. 5450, T.I.A.S. No. 6529. Amendments to articles 23, 27, and 61 came into force for the U.S. on Aug. 31, 1965. An amendment to article 109 entered into force on June 12, 1968.

in space.⁵⁴ Interference with the operation of a satellite, particularly a manned vehicle could be claimed by the owner State as the threat or use of force against its territorial integrity, giving rise to assertions of the right to act in self-defense to destroy the source of interference.

Official United States and Soviet interpretations of the effect of article 2(4) upon military space activities have differed. Most of the controversy has arisen over the use of surveillance satellites. Such activities are viewed by the United States as nonaggressive in the same sense as surveillance from the high seas or international airspace. In the past, Soviet officials have charged that, to the contrary, space surveillance of their territory is aggressive.⁵⁵ However, the verification provisions in the SALT and ABM agreements indicate an apparent moderation of that position by the Soviets.

B. *Self-Defense*

A counterbalancing provision to article 2(4) is found in article 51⁵⁶ of the Charter. Therein the right of States to engage in individual or collective self-defense is confirmed. The article is phrased in terms of self-defense to an "armed attack." However, despite this specific language, some publicists have urged that a rational interpretation would include within the ambit of article 51 the traditionally recognized right to act in self-defense in the face of the *threat* of an armed attack.⁵⁷ Others have argued that anticipatory self-defense is a right which must be recognized, particularly in this age of weapons which have the capability to inflict awesome destruction on the homeland of the State under attack within minutes of the launching of attack.⁵⁸

This line of thought projected into the context of outer space would mean that the perceived threat of attack may require United States decision-makers to negate the effectiveness of certain potential enemy space vehicles.⁵⁹

IV. CONSTRAINTS DERIVING FROM CUSTOMARY INTERNATIONAL LAW

There was never a complete legal vacuum in outer space. Applicable international law governing the interrelationship of nations was taken into space by national programs and activities. But because of the new environment, many interests and activities were just not previously dealt with in international law.

⁵⁴ McDUGAL & FELICIANO, *LAW AND MINIMUM WORLD PUBLIC ORDER - THE LEGAL REGULATION OF INTERNATIONAL COERCION* 227, (1961).

⁵⁵ LAY & TAUBENFELD, *supra* note 3, at 31. U.N. CHARTER, *supra* note 53.

⁵⁶ U.N. CHARTER, *supra* note 53.

⁵⁷ McDUGAL & FELICIANO, *supra* note 54, at 232-240.

⁵⁸ Comment, *Defense in Outer Space*, 49 MIL. L. REV. 160 (1970); DeSaussure & Reed, *Self-Defense - A Right in Outer Space*, 7 A.F. JAG L. REV. 38-45 (1965).

⁵⁹ JONES, *supra* note 43, at 80.

As mentioned previously,⁶⁰ the OST makes international law applicable to the exploration and use of outer space, the moon and other celestial bodies. "International law" is said to comprise international conventions, international custom, generally recognized principles of law, domestic judicial decisions and the opinions of international legal scholars.⁶¹ Thus, customary international law has application in the space milieu.

An illustration of how customary international law derives from State practice might be helpful. In the late fifteenth century exploration of the high seas brought attention to the various legal claims which were made concerning the medium. Among these were claims that the oceans were subject to designation as the exclusive property of a particular State or States.⁶²

Spain lodged a complaint in 1580 with Queen Elizabeth of England against Sir Francis Drake for purported violations of areas of open sea in the Pacific over which Spain claimed maritime sovereignty. Elizabeth replied that the Pacific was open to navigation by all nations, because the use of the sea and air was open to all. She asserted that no nation could claim title to the ocean, since neither nature nor regard for the public use permitted any possession of the ocean. Although claims to maritime sovereignty persisted, by the end of the first quarter of the nineteenth century the doctrine of freedom of the open seas became universally recognized in theory and practice.⁶³

The customary international law principle of free pursuit of scientific inquiry helped pave the way for the first Sputnik and Explorer satellites. So long as their objectives were scientific, the custom of nations required that their free passage go unchallenged.⁶⁴ The fact that the initial flights went unchallenged gave impetus in turn to a new principle; that of free passage in outer space. Virtually every nation ultimately came to accept the principle and new customary international law was established.⁶⁵

Outer space is a new medium in which man must learn to function and interact. A legal regime is developing which will control interactions

⁶⁰ See text, *supra*, Section II B.

⁶¹ The International Court of Justice is required to apply the following in deciding disputes submitted to it:

- a. international conventions, whether general or particular, establishing rules expressly recognized by the contesting states;
- b. international custom, as evidence of a general practice accepted as law;
- c. the general principles of law recognized by civilized nations;
- d. subject to the provisions of Article 59, judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.

Statute of the International Court of Justice, June 26, 1945, 59 Stat. 1055, T.S. No. 993, 3 Bevans 1153 (effective Oct. 24, 1945), art. 38.

⁶² JONES, *supra* note 43, at 37.

⁶³ 1. OPPENHEIM, INTERNATIONAL LAW: PEACE 584 (8th ed. Lauterpacht 1955).

⁶⁴ Prevost, *supra* note 10, at 602.

⁶⁵ *Id.* at 599.

within space and between space and earth. The development of the legal regime will be influenced significantly by analogous principles borrowed from other areas of international law.

There is a certain danger, in analogizing too freely between legal problems which will be confronted in space and the principles used in resolution of similar problems in other areas. Initially, space is a medium substantially different in nature from other mediums. History has shown that attempts to make similar adaptations of sea law principles to the airspace were not always successful. Early scholars argued that any nation should be free to use the airspace just as they were free to use international waters. They reasoned that "since the air could not be enclosed and subjected to possession, . . . it, like the sea, should be open for all nations, possessed by all nations."⁶⁶ With the advent of powered flight, the ensuing experiences in military usage of aircraft in World War I and growing awareness of the commercial implications of air transport, the free air proponents faded away and the sovereignty of States over the airspace above their territory and their territorial seas was firmly established as a guiding principle.⁶⁷

The legal regime of the high seas cannot be adopted *in toto* in outer space as some writers have argued.⁶⁸ There are similarities in the mediums, but a far greater number of differences.⁶⁹ However, many law of the sea concepts are found in the law of outer space already, such as freedom of use, access and registration.⁷⁰

Another problem which arises in attempting to apply law of the sea principles to the space medium is the conflict created by other legal regimes. The well known law of the sea principle of innocent passage through territorial waters cannot be strictly applied in space because space passage may also include passage within the sovereign airspace.⁷¹ Such passage would violate the principle of the airspace regime which prohibits unauthorized intrusion by one State in the territorial airspace of another.⁷²

⁶⁶ JONES, *supra* note 43, at 40.

⁶⁷ *Id.* at 40.

⁶⁸ For example, in a chapter on outer space in his 1966 book, Professor Gardner stated that mankind is free to use space "[o]n the same basis as it uses the high seas - free of any restraints save those on exclusive use and illegal activity such as aggression." GARDNER, IN PURSUIT OF WORLD ORDER - U.S. FOREIGN POLICY AND INTERNATIONAL ORGANIZATIONS 213 (Rev. ed. 1966).

⁶⁹ Prevost notes: "Unfortunately, the analogy is more romance than science. The sea, as relates to pertinent law, is a surface of two dimensions; space is a three dimensional volume within which man operates. Time itself contracts; gravity ceases. The shortest distance between two points is a curved line; navigation, as used on earth, is meaningless." Prevost, *supra* note 10, at 601.

⁷⁰ LAY & TAUBENFELD, *supra* note 3, at 57-59.

⁷¹ Christol, 'Innocent Passage' in the International Law of Outer Space, 7 A.F. JAG L. REV. 23 (1965).

⁷² *Id.* at 26.

Prevost's view is that any attempts to apply the law of the sea precepts to outer space, "[w]hile it might not result in bad law, would be so unwarranted as not to be worth the effort."⁷³ Such views notwithstanding, analogous principles from the law of the sea, the airspace regime and other areas of law have been and will continue to be applied in space.

One such principle, borrowed from the law of the sea, has relevance to this review. It has long been a customary rule of international law that men-of-war and other public vessels belonging to a State, when upon the open sea or in foreign territorial waters, are considered as floating parts of the owner State.⁷⁴ Arguably this principle should apply to State-owned objects in space. Article VIII of the OST is confirmation that it does.⁷⁵ The ownership and registry provisions of that article recognize an inherent right of State ownership of man-made objects in space.

V. EFFECT OF UNITED NATIONS RESOLUTIONS

Prior to implementation of the OST the United Nations was very active in the promotion of a number of international understandings on rules to govern the exploration and use of outer space. Ultimately these understandings took the form of unanimous U.N. resolutions. As the significant parts of these resolutions eventually were incorporated into the Outer Space Treaty and other treaties dealing with space which followed, extensive discussion is not necessary.⁷⁶

However, a short historical review of the controversy surrounding the effect of U.N. resolutions is pertinent as an indication of what could happen to new space-related resolutions of the General Assembly. The controversy focused on the question of whether U.N. resolutions can be viewed as international law binding upon its membership.

The United Nations has no legislative authority. The Charter and practice within the U.N. make it clear, "[t]hat, with the exception of matters of internal U.N. administration specifically assigned to the General Assembly (e.g., the budget), resolutions of the General Assembly are recommendations only and are not formally binding on members."⁷⁷ Several views as to the effect of resolutions have been advanced:⁷⁸

⁷³ Prevost, *supra* note 10, at 601.

⁷⁴ OPPENHEIM, *supra* note 63, at 597.

⁷⁵ Outer Space Treaty, *supra* note 2, at 2410.

⁷⁶ However, one caveat is necessary. Not all members of the U.N. have acceded to the Outer Space Treaty. Those who have not may not regard the resolutions as binding in the event they become a space power in the future. The Peoples Republic of China has not acceded to the treaty.

⁷⁷ LAY & TAUBENFELD, *supra* note 3, at 81.

⁷⁸ JONES, *supra* note 43, at 52-57.

- a. resolutions signify moral obligations only;
- b. all resolutions are juridical in character, having binding aspects upon signatory States;
- c. resolutions ensconced in legally-binding terminology and language expressing an intent to promulgate a rule for future conduct constitute a juridical obligation, while resolutions employing less formal, non-legal phraseology amount to a mere recommendation;
- d. resolutions, even though lacking in enforceability when adopted, become instant customary law and binding upon all nations;
- e. resolutions are tantamount to a codification of *existing* customary international law.

The United States has officially taken the position with regard to the various resolutions dealing with outer space that they are simply restatements of pre-existing customary international law.⁷⁹ The prevailing view among nations seems to be that the resolutions dealing with outer space may be taken as statements of what the law is; whether they create law or are merely evidence of customary law.⁸⁰

VI. CONCLUSION

One of the fundamental truths of international law is the fact that if an act is not specifically prohibited, then international law permits it. This review should demonstrate that there is very little which is specifically prohibited in space. What prohibitions there are stem from international agreements, the United Nations Charter, and a modicum of customary space law adopted in most instances from other international legal regimes. While space is dedicated to peaceful uses, it does not follow that military uses are forbidden. In truth, space provides a vital extension of United States defensive forces. Defensive activities in space are all the more vital when one considers the fact that potential enemies of the United States are also unfettered by extensive prohibitions.

There is, of course, a present need for further prohibitions applicable to certain space activities, but such needs have grown out of technical advances and their application or potential early application in space. Positive international law does not normally precede the interaction between States; but rather, it evolves to answer existing needs.

Space law is in its formative stages and this is as it should be. As the nature and extent of man's activities in space increase, law-making will take place in stages until a fully developed legal system evolves much as has occurred in air law and the law of the sea.

⁷⁹ Testimony of Secretary of State Rusk, *reprinted in* 47 DEPT. STATE BULL. 318 (1962).

⁸⁰ LAY & TAUBENFELD, *supra* note 3, at 84. For an expanded discussion of the issues involved and official statements made by various nations, *see, id.* at 81-87.