II - OVERVIEW OF CURRENT LEGAL REGIME

A. Treaties and International Agreements

International law is applicable to space stations for three reasons: first, space has been defined by the Outer Space Treaty as an international realm beyond the sovereign claim of any nation or group of nations[3]; second, article VI of the U.S. Constitution states that: "Treaties made, . . . under the Authority of the United States, shall be the supreme Law of the Land"; therefore, U.S. citizens engaged in space activities are bound as a matter of domestic law by self-executing provisions of the space treaties[4]; and third, since the space station currently under consideration by NASA will include some level of international participation, attempts to apply U.S. law to the entire space station will raise questions with an international dimension.

The United States has signed and ratified four international space agreements[5]:

- Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (The Outer Space Treaty, 1967)[6];

---

[3] Outer **Space** Treaty, article I, (18 U.S.T. 2410; T.I.A.S. 6347).

4 Not all treaties made by the United States immediately become U.S. domestic law. Treaties can be classified as self-executing (those which become domestic law immediately) and nonself-executing (those which require some action on the part of Congress to implement). For two different applications of this rule, see: *Sei Fuji v. State, 242* P.2d 617, 38 Cal.2d 718 (1952), where the California Supreme Court held that the general purposes and objectives of the the U.N. Charter did not impose legal obligations on the individual member nations or create rights in private persons; and *Asakura v. City of Seattle, 265* U.S. 332, 44 S.Ct. 515 (1924), where the U.S. Supreme Court held that a local law prohibiting non-citizens from operating as pawnbrokers violated a treaty between the United States and Japan.

5 The United Nation's Committee on the Peaceful Uses of Outer Space (COPUOS) which was responsible for drafting these four treaties also drafted the "Agreement Governing the Activities of States on the Moon and Other Celestial Bodies" (the Moon Treaty, 1979). Although the United States participated in the drafting of this fifth treaty, it neither signed nor ratified this document.

- Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (The Astronaut Treaty, 1968)[7];
- Convention on International Liability for Damage Caused by Space Objects (The Liability Convention, 1973)[8]; and
- Convention on Registration of Objects Launched into Outer Space (The Registration Convention, 1976)[9].

Most of the fundamental principles of international space law can be found in the 1967 Outer Space Treaty. The 1968 Astronaut Treaty, the 1973 Liability Convention, and the 1976 Registration Convention serve primarily to elaborate some of these general principles. Taken together, these Treaties establish a unique international legal regime for space. Although this subject has been dealt with in greater detail elsewhere[10] it is useful to examine some of the principles that have relevance to the development and operation of a space station.

1) The Legal Character of Outer Space. Outer space is considered by most jurists to be *res communis;* that is, a place that is owned by no one but is free for use by everyone. Article II of the 1967 Outer Space Treaty states: "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."

Although space ma not be "appropriated," it is "free for exploration and use by all States."[11] In some circumstances this "use" may even be

---

[6] 18 U.S.T. 2410; T.l.A.S. 6347.

[7] 19 U.S.T. 7570; T.I.A.S. 6599,

[8] 24 U.S.T. 2389; T.I.A.S. 7762.

[9] 28 U.S.T. 695; T.I.A.S. 8480.

[10] See generally: Carl Q. Christol, *The Modern International Law of Outer Space,* (Pergamon Press, 1982); *Manual on Space Law,* Jasentuliyana and Lee, eds. , (Oceana Publishing, 1979); Nicolas M. Matte, *Aerospace Law, (Carswell,* Ltd., Canada, 1969); Myres S. McDougal, Harold D. Lasswell, and Ivan A. Vlasic, *Law and Public Order in Space,* (Yale University Press, 1963). For a more detailed examination of how the current space treaties relate to space station development and activities, see: Eilene Galloway, "The Relevance of General Multilateral Space Conventions to Space Stations," paper delivered to the International Colloquium on Space Stations, Hamburg, Germany, October 3-4 1984; Hamilton DeSaussure, "The Impact of Manned Stations on the Law of Outer Space," *San Diego Law Review,* vol. 21, No. 1, March 1984.

[11] 1967 Outer Space Treaty, *supra,* note 6, article I: "Outer Space, including

exclusive. For example, a country that places a broadcasting satellite in geostationary orbit[12] prevents other countries from placing broadcasting satellites in that identical position in that orbit. Such exclusive use is allowed because it constitutes neither a permanent "appropriation" nor an attempt to extend state sovereignty.[13] A similar situation exists in maritime law. Nations may not claim sovereignty over portions of the high seas; however, when conducting activities such as naval maneuvers, satellite launch or recovery at sea, or missile tests, nations have in the past exercised temporary control over portions of the high seas.[14] In both maritime law and space law, temporary exclusive use is allowed as long as it is accomplished with "due regard" for the corresponding interests of other states.[15]

2) The Status of Private Sector Space Activities. There was some initial disagreement as to the legal status of private sector space activities. The United States has always encouraged the private sector to participate in space exploitation.[16] The Soviet Union initially opposed this idea. In 1962, the Soviets introduced a draft treaty which stated: "All activities of any kind pertaining to the exploration of outer space shall be carried out solely and exclusively by States. . ."[17] In order to resolve this

---

the moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies,"

12 A *circular,* equatorial orbit whose period of rotation is equal to the period of rotation of the earth; a satellite in such orbit remains approximately fixed in relation to the Earth.

[13]Some jurists have argued that the "first come, first served" method of allocating orbital slots amounts to an "appropriation" in violation of the Outer Space Treaty. See: Ram S. Jakhu, "Legal Aspects of the WARC," *Intermedia,* May 1985, vol. 13, No. 3, p. 17.

[14]States have also recognized the right to establish permanent platforms on the contiguous high seas over the continental shelf. *(Rodrigue v. Aetna Casualty and Surety, 395* U.S. 352.) As long as these platforms are not a hazard to maritime navigation, they do not contravene international law.

[15]Article IX of the Outer Space Treaty provides that states shall "conduct all their activities in outer space . . . with due regard for the corresponding interests of all other states. . ." Article 87 of the 1982 United Nations Convention on the Law of the Sea states: "[Freedom of the high seas] shall be exercised by all States with due regard for the interests of other States. . ."

[16]In 1960, President Eisenhower directed NASA to "advance the needed research and development to encourage private enterprise to apply its resources toward the earliest practical utilization of space technology for commercial civil communication requirements." White House Press Release, Dec. 30, 1960.

[17]U.N. Dec. A/AC, 105/L2; U.N. Doc. A/5/81, Annex 3.

conflict, the United States proposed that each country should bear the responsibility for the activities of its nationals in space. This compromise was acceptable to the Soviet Union and was incorporated in article VI of the 1967 Outer Space Treaty.[19]

The space treaties declare that, under certain circumstances, a country is both 'responsible' and 'liable' for the space activities of its nationals. It is important to note that this differs from the common practice in both maritime and air law. The United States exercises a supervisory role (responsibility) with respect to ships and planes owned by the private sector but does not accept the financial risk (liability) for the actions of these assets. In space, under certain circumstances, the U.S. Government has both a supervisory and a financial responsibility.[20]

The principle of state responsibility for the actions of its nationals is incorporated in articles VI and IX of the 1967 Outer Space Treaty. Although the 1967 Treaty does not specifically grant private industry the right to undertake commercial activities in space, the U.N. debates on this subject make it clear that such rights were contemplated by the drafters and, in fact, already existed--at least in the United States--as a result of the 1962 Communication Satellite Act.

3) State Responsibility for Actions in Space. Article VI of the Outer Space Treaty states:

> States . . . shall bear international responsibility for national activities in outer space, . . . whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with . . . (this) Treaty. The activities of non-governmental entities in outer space, . . . shall require authorization and continuing supervision by the appropriate State party to the Treaty.

Some authors have suggested that a state's responsibilities under article VI are extensive:

> (W)hile no one would doubt the need for government control over space activity at its present stage, . . . Article VI would prohibit, as a

---

[18]U.N. Dec. A/AC. 105/L5; U.N. Doc. A/5/81, Annex 3.

[19]Article VI of the outer Space Treaty provides that states shall bear *international* responsibility for the conduct of their nationals in outer space. The United States has not undertaken to bear *domestic* responsibility, *vis-a-vis* its own nationals or their property.

[20]In recognition of this fact, the standard NASA launch service agreement requires the customer to obtain third-party liability insurance to reduce or eliminate the financial exposure of the U.S. Government.

> matter of treaty obligation, strictly private, unregulated activity in space or on celestial bodies even at a time when such private activity becomes most commonplace. Although the terms "authorization" and "continuing supervision" are open to different interpretations , it would appear that Article VI requires a certain minimum of licensing and enforced adherence to government-imposed regulations. [21]

With respect to government or private activities that could "cause potentially harmful interference with activities of other States," a state, under article IX of the Outer Space Treaty, must "undertake appropriate international consultation before proceeding with any such activity." Article IX's language is significant because it can be read as imposing an active duty to regulate, whereas article VI might be read as imposing only a passive duty to supervise.

4) State Liability for Actions in Space. Article VII of the Outer Space Treaty and article 11 of the 1973 Liability Convention extend the concept of State *responsibility* to include the concept of *liability* for certain space activities. Article II of the Liability Convention provides that a launching State is absolutely liable[22] for "damage caused by its space object on the surface of the earth or to aircraft in flight." *23* If the damage does not occur on earth or in the air, then the launching state is "liable only if the damage is due to its fault or the fault of persons for whom it is responsible. "2[4]

The Liability Convention applies only to "launching states, " which are defined in article I as:

> (i) A State which launches or procures the launching of a space object;

---

[21] Jasentuliyana and Lee, *Manual of Space Law,* vol. 1, p. 17 supra, note 10. However, it might reasonably be argued that the "authorization and continuing supervision" required by registry states relate to treaty compliance and safety, not to the general activities of private firms, A comparison could be made to the present state of U.S. commercial aviation, in that market forces are allowed to dictate fares, rates, and capacity, but the FAA retains sole responsibility for air safety.

22 There is an important legal distinction between *absolute* liability and *fault* liability. Under an absolute liability standard, the plaintiff need only prove that the incident occurred and that the injury resulted from the incident. Where the standard is fault liability, the plaintiff must also prove that the defendant was at fault, that is, that the defendant acted with negligence,

23 The Liability Convention does not apply to damage caused by a *launching* state to its own nationals. This problem is discussed in section VI.

24 Liability convention, *supra, note 8, article III*

(ii) A State from whose territory or facility a space object is launched;

Under this scheme, if state A launches a space object for a private corporation of state B from the territory of state C, states A and C would be considered launching states and therefore absolutely *liable* for damage done on Earth. The question of state B's liability is unclear, even though state B would be *responsible* under article VI of the Outer Space Treaty for the "authorization and continuing supervision" of the private sector party. If state B is considered to have "procured" a launch, then presumably it would also be liable.[25]

The Liability Convention allows an injured party to file a claim against any launching state. Therefore, in the example given above, states A, B, and C might all be held liable. To offset a potentially inequitable outcome, article V of the Liability Convention allows a state that has paid compensation for damages to present a claim for indemnification to other participants in the joint launching.

The Liability Convention grants neither rights nor responsibilities to the private sector. If the nationals of a launching state cause damage to the nationals of another state, the damaged party must have its government present a claim for compensation to the government of the launching party. The Convention does, however, acknowledge the right of individuals to pursue remedies outside the Convention.[27]

5) State Jurisdiction Over Space Objects. The 1967 Outer Space Treaty establishes the principle that "A State . . . on whose registry an object launched into space is carried shall retain jurisdiction and control over such object and over any personnel thereof, while in outer space or on a celestial body."[28] In other words, the rights and responsiblities of the state of registry of a space object are similar--though not identical--to those of the

---

[25]Article VI of the Outer Space Treaty holds a state responsible for the actions of its nationals; however, it does not say that the action of a national is identical to the action of the state. In the example above, if state B's nationals procure a launch, it is not immediately clear that state B has procured a launch. Therefore, although state B would be *responsible,* it might not be *liable* for the actions of its nationals. It is interesting to note that the 1973 NASA/ESA Spacelab Agreement (24 U.S.T. 2049; TIAS 772) is also ambiguous with respect to these terms. Article 11 is entitled "Liability" but the article speaks only of "responsibility."

[26]Liability convention, *Ibid.* , article VIII.

[27]Article XI (2) states: "Nothing in this Convention shall prevent a State, or natural or juridical persons it might represent, from pursuing a claim in the courts or adminstrative tribunals or agencies of a launching State."

[28]1967 Outer Space Treaty, *supra,* note 6, article VIII.

state of registry of a ship.

In addition to the registries of the individual launching states mentioned in the Outer Space Treaty, the Registration Convention instructs the Secretary-General of the United Nations to maintain a separate registry. States on whose registry a space object is recorded are to notify the Secretary-General "as soon as practicable" of the:

(a) Name of launching State or States;
(b) [A]ppropriate designator of the space object or its registration number;
(c) Date and territory or location of launch;
(d) Basic orbital parameters. ..;
(e) General function of the space object;[29]

Where two or more states might be considered "launching states," article II of the Registration Convention provides that "they shall jointly determine which one of them shall register the object. 1130 Although only one of the parties can register the object, article 11 acknowledges that the registration decision is "without prejudice to appropriate agreements concluded or to be concluded among the launching States on jurisdiction and control over the space object and over any personnel thereof."

B. U.S. Space Law

Until recently, U.S. space law--excluding telecommunication law[31]--consisted primarily of reulatory interpretations of the 1958 National Aeronautics and Space Act.[32] When U.S. space 'exploration began, domestic space laws were not as important as they are now, since the government was the primary actor in space. NASA, working with private contractors, developed the technologies that it needed to conduct its research; these technologies form the basis of what are now the infant space transportation, remote sensing, and materials processing in space (MPS) industries.

---

[29] *Registration Convention, supra,* note 9, article IV.

[30] *Registration convention, supra,* note 9, article II.

[31] The 1962 Communication Satellite Act (47 U.S.C. 701 *et seq.),* which established COMSAT as a private corporation and the U.S. participant in INTELSAT, is one of the most significant pieces of domestic legislation affecting space activities. However, this paper does not address problems of communications law. For a discussion of current political and legal issues in satellite communications, see, U.S. Congress, Office of Technology Assessment, *International Cooperation and Competition in Civilian Space Activities,* OTA-ISC-239 (Washington, DC: U.S. Government Printing Office, July 1985) Chapter 6.

[32] 42 U.S.C. Sec. 2451, et *seq.*

Following the completion of the Apollo program, the emphasis of the U.S. space program began to shift from achieving technological superiority over the Soviet Union and solar system exploration to the pursuit of programs with more obvious earth-oriented benefits. In 1978, President Carter announced that the United States would "encourage domestic commercial exploitation of space . . . for economic benefit..."[33] The Reagan Administration has continued and expanded the Carter policy of encouraging commercial space activities.

In a relatively short period of time, the U.S. private sector began to generate proposals for private launch, remote sensing, and materials processing services.[34] As each of these technologies raised a different set of legal issues, pressure began to build to develop legislation specifically crafted to each technology. In 1984, Congress passed and the President signed into law the Land Remote-Sensing Commercialization Act[35] and the Commercial Space Launch Act.[36] These bills were designed to encourage the development of private remote sensing and space transportation industries and to establish the minimum but essential level of government regulation required by article VI of the 1967 Outer Space Treaty.

---

[33] White House Press Release, "Description of a Presidential Directive on National Space Policy," June 20, 1978.

[34] For a detailed look at the history and current structure of each of these industries, see: *International Cooperation and Competition in Civilian Space Activities, supra,* note 31; see *also:* U.S. Congress, Office of Technology Assessment, *Civilian Space Policy and Applications, OTA-STI-177* (Washington, DC: U.S. Government Printing Office, June 1982).

[35] Public Law 98-365; See also: Richard DalBello, "The Land Remote Sensing Commercialization Act of 1984," *Space Policy,* August 1985.

[36] Public Law 98-575; See *also:* E. Jason Steptoe, "Regulation of private Commercial Space Transportation by the United States Department of Transportation," American Institute of Aeronautics and Astronautics, *Proceedings of the Twenty-Eighth Colloquium on the Law of Outer Space, 1985.*