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The International Law of Outer Space

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CHAPTER V

THE RIGHT TO THE MAINTENANCE OF INTERNATIONAL PEACE, SECURITY, AND SELF-DEFENSE IN OUTER SPACE

Attention has been called in preceding chapters to the emergence of principles and rules of international law permitting the free use of outer space for peaceful, i.e., nonaggressive and beneficial, purposes. Such purposes have been described as reasonable. It has been stated that when the uses and exploration of outer space and celestial bodies conform to such peaceful and reasonable activities that such conduct is lawful.

Attention has also been called to the efforts of states, principally through their deliberations in the United Nations, to determine with some degree of specificity the kinds of limitations to be imposed upon space conduct. It is apparent that wholly unrestricted conduct in outer space would contribute neither to a structured legal order in space nor would it be beneficial to the needs of man. This is true no matter whether man is situated on the surface of the earth, in the airspace, or in outer space.

With the massive application of modern science and technology to the secrets of outer space, it has become clearly apparent that this newly exploitable environment may be used in all of the traditional and conventional ways pertaining to airspace and to the earth's surface. With this understanding has come the need to consider the legal rights of a state to the maintenance of peace, security, and self-defense in outer space.

The new tempo of man's existence has consolidated and capsulized both time and space. From this point of view there is a need for man to have an early and constant awareness of acceptable standards of space conduct and the content of space law. From the legal point of view it must be kept in mind, pursuant to General Assembly Resolutions 1721 A (XVI), 1802 (XVII), and 1962 (XVIII),¹ and the consensus of states as reflected by their constant behavior, that international law and the Charter of the United Nations apply to space activities.

¹ Annexes 2, 3, and 4, *infra*, pp. 443-452.

Just as certain standards of conduct have developed for the peaceful exploitation of the scientific resources of outer space, so also there are both old and rapidly emerging standards applicable to the security needs of states in space. Thus, with the swiftly evolving capabilities of resource states to make use of the space dimension, there has also come the recognition that it is a sharable resource. Accordingly, its use is not limited or restricted to a single state. World claims to the exploitation of outer space have resulted from the actual uses of the dimension. Such claims have been honored through common usages and practices.

The concept of claims has been developed by McDougal and Lipson, who have stated that, like other claims in international law, the claims to the use of outer space "carry a promise of reciprocity, combined wherever possible with latent or expressed threats of retaliation or reprisal if the complementary promise is dishonored. This pattern of reciprocally tolerated access to outer space for sharable or inclusive uses may be restricted by the attempt to ensure the public order of the world community through devices providing security from military attack, preventing or at least making difficult the activities of unaccountable (flagless) space objects or spacecraft (to be compared with measures against piracy on the high seas) and imposing rules of the road."²

The requirements of national defense in the space age have taken on new proportions in view of the actual and potential applications of modern science and technology to outer space. Man's concern will be directed to protection from harm in outer space no less than to protection on earth from activities which have their source in space. His aspirations for security are deeply indigenous to his entire political-legal environment.

Presently existing international legal obligations deny to states the legal right to threaten or engage in aggression in order to resolve international disputes. While it is inevitable that serious differences may exist among states as the result of competing national interests, yet it is possible for such difficulties to be resolved in the political-legal forum. This forum, represented in an institutionalized form by the United Nations and regional organizations, unhappily

² McDougal and Lipson, "Perspectives for a Law of Outer Space," 52 *A.J.I.L.* 415-416 (1958); *Legal Problems of Space Exploration, A Symposium* 417. They have noted that states in the attainment of a modicum of security will be concerned with "the indefinite postponement of unacceptably destructive violence, the achievement of some stability of expectation as to modes of exercising effective power, [and] the maintenance of public order against hostile or reckless or capricious threats." *Ibid.*, 418.

is not a perfect one for the resolution of serious international conflict. Were it more perfect than it is, it might be possible for a monopoly of international sanctions to be exercised by an international institution. Every effort, it may be suggested, must always be made to resolve outer space difficulties through collective international processes. However, when such institutions—because of their primitive quality, or for other reasons—are not able to use effectively the powers possessed, or are lacking in powers, then it becomes readily apparent that states may be obliged in grave matters to engage in self-help. In international law this is known as the inherent right of self-defense. It may be collective or individual. Its use is circumscribed by political and legal considerations. These considerations have direct applicability to national and international rights and duties in space. It has been observed that “The dangers to peace which exist and which may exist in the future stem from the threat or use of force in violation of international legal obligations. The standards which must be used in determining and controlling exertions of national power have not been altered by the new world which outer space activities has opened.”³ Under these circumstances, international respect for important common interests, based upon an awareness of the mutuality of certain interests among resource states, may serve as a foundation for an ordered legal structure for outer space.

A. LEGAL AUTHORITY FOR DEALING WITH CERTAIN USES

In the international arena, as in the municipal forum, many controversies may be resolved without recourse to force or coercion. The interests of the world community are very frequently best protected through the use of negotiation in seeking the resolution of disputes.⁴ Negotiation carries with it a vast range of opportunities for peaceful settlements, and diplomacy may be able to utilize the breadth of its capabilities in arriving at mutually acceptable resolutions of given problems.

Law's scope for dealing with problem situations, although not so broad as that of negotiation, has, nonetheless, a wide spectrum of principles, standards, and rules through which international disputes may be resolved and ameliorated. The versatility of the law for successful compromise in the face of seemingly unresolvable difficulties has been well summed up by Jackson who has properly made

³ Meeker, “Observation in Space,” *Department of State Press Release No. 191* (Revised), April 12, 1963, 7; 48 *Department of State Bulletin* 750 (1963).

⁴ U.N. Charter, Chapter VI, especially Article 33.

the point that law possesses a certain "statecraft."⁵ It is as much the function of international law to establish the principle that space may be used freely for peaceful purposes as it is its function to establish the legal duty of states to abstain from certain uses of outer space. International law, including the U.N. Charter, assures to states the right to enjoy the benefits of international peace and security and provides them with a legal right to maintain international peace and security. A state is also entitled, under international law, to maintain its continued existence and is permitted pursuant to the rule of law to engage in measures of self-defense, either collective or individual, to uphold this right.

Prior to the present century, international law devoted much of its attention to the regulation of the manner in which war between nations might be conducted. During the twentieth century, however, an effort has been made to transfer to the United Nations a monopoly on the use of international force. The manner in which states may protect their essential rights is now very much affected by the terms of the Charter of the United Nations dealing with the maintenance of international peace, security and self-defense. It should be noted, however, that the fundamental rights and duties of states are affected by the totality of international law no matter what form it may take. In addition to the Charter this includes, among other sources, general customary international law. From the latter is derived initially the inherent right of a state to protect itself against the aggressive or potentially aggressive conduct of another.⁶

1. The Legal Duty to Abstain from Certain Uses

Through the deliberations at the United Nations, and by other means, it has been demonstrated that a virtually unanimous consensus exists that outer space and celestial bodies should be used solely for peaceful purposes. The existing resource states have given their approval to this principle.⁷ The United States has from the very first insisted that space must be used for nonaggressive and beneficial purposes. While the Soviet Union has not expressly and formally accepted this formula in an international treaty, it should be noted that it has not expressly—nor implicitly—rejected this view. Both states have clearly indicated that the use of outer space must be controlled, and this has demonstrated that both are of the view that certain, including some specifically delineated, activities are not

⁵ Jackson, *Jurisprudence in Action*, Foreword, iv, (1953).

⁶ *Infra*, pp. 322–332.

⁷ U.N. Doc. A/5656; A/RES/1962 (XVIII), Annex 4, *infra*, pp. 450–452. Compare, U.N. Doc. A/5571; A/RES/1884 (XVIII), Annex 13, *infra*, pp. 462–463.

permissible. As a result of their discussions and exchanges of points of view, it has been possible for certain common interests to be identified.

At the time of this writing neither state has placed weapons of mass destruction into outer space. Each has expressed the view that this should not be done and both have agreed to, and supported, General Assembly Resolution 1884 (XVIII).⁸ Each has cautioned that if one should do so, the other would be obliged to act similarly. Thus, the condition at the present may be described as one of mutual restraint based on law.

The existence of an express agreement in this area is important in view of the traditional principle of international law that when national conduct is not prohibited, it may be argued that it is permitted.⁹ Nonetheless, if resource states continue to refrain from this particular use of space for an undesignated period of time—probably a short period by reason of the speed with which customary international law affecting outer space has developed—it might, as a result of such conduct, readily be assumed that the stationing of such space objects in outer space or on celestial bodies had become unlawful. In view of the fearful dangers which the presence of such devices might potentially bring to all mankind, or may be assumed to bring, it is hard to conceive that there could be a consensus supporting their legality, or that their mere presence could be regarded as a peaceful use.

2. The Right to the Maintenance of International Peace and Security

To properly discuss this topic, it becomes necessary to make some assumptions. First, assume that a weapon of mass destruction has been unilaterally introduced into outer space or placed on a celestial body. Second, we must assume also that this action is violative of man's general expectations of a legal order in the universe because of the extreme threat of disastrous force represented by the presence of such an object. Under these circumstances there would arise a need to determine the legal bases for dealing with such a vehicle. Since the probable effect of the exploitation of such force would not substantially exceed the effect realizable through its presence and threatened use, there would appear to be no need to distinguish between the threat of use and actual use. In short, mere presence presumably would constitute so grave a danger that it could be legally assimilated to actual aggressive use.

⁸ *Op. cit.*

⁹ *Supra*, pp. 142, 266–267.

Aggression may be proven by demonstrating an intentional and wholly unprovoked armed attack. This is the clearest and most classic example. However, it is equally clear that aggression may take many forms. Thus, for example, the Inter-American Treaty of Reciprocal Assistance of 1947, frequently referred to as the Rio Treaty or Pact, made provision in Article Six for a condition in which an aggression “is not an armed attack * * *”¹⁰

Further, aggression appears to be but one of several ways in which great harm may be brought to a state and its people. It is frequently cited as a leading example because of the gravity of the consequences attendant upon its employment. However, the key problem is not so much the matter of aggression, but rather the application of an unacceptably large amount of harm—either immediate or potential (and if potential without a real opportunity for the potentially harmed state to redress the situation in a manner favorable to itself) by one state to another. Thus, the violation of the integrity of territory, or the prejudicial limitation of sovereign rights, or the restriction of the political independence of a state, or the intentional violent modification of an existing political-military equilibrium by positioning weapons of mass destruction in outer space would each illustrate a national effort to apply an unacceptably large amount of harm by one state to another. This is taken into account by the Charter of the United Nations when it was made applicable to outer space and celestial bodies through General Assembly Resolutions 1721 (XVI), 1802 (XVII) and 1962 (XVIII). General Assembly Resolution 1884 (XVIII) also has a direct application to this situation.

Article 1 of the Charter, in making provision for the purposes and principles of the Organization, provides that an essential objective is to maintain international peace and security. To this end, provision is made for the collective “suppression of acts of aggression or other breaches of the peace.” The same article takes into account the need for the adjustment or settlement of situations “which might lead to a breach of the peace.” The Charter imposes the duty on each member to act in accordance with the following provision of Article 2(4):

All Members shall refrain in their international relations from the threat of use of force against the territorial integrity or

¹⁰ 21 *UNTS* 93, *et seq.* (1948).

political independence of any state, or in any other manner inconsistent with the purpose of the United Nations.¹¹

In view of these provisions, albeit general in nature, it may be urged that there is a duty on the part of states not to position weapons of mass destruction in outer space or celestial bodies. Further, by reason of the express terms of General Assembly Resolution 1884 (XVIII), it is now clearly established that the presence of such weapons in outer space may be considered to be a threat to the territorial integrity or political independence of any state.

Under Article 1(2) each nation has the duty "to strengthen universal peace." Article 2(3) requires of each member that it not endanger "international peace and security" in the resolution of international disputes. Article 2(6) extends to nonmembers the duty to conform to "the maintenance of international peace and security." These articles, then, which set out the "Purposes and Principles" of the Charter, as well as other articles, make abundant reference to the legal duty of states to conform to the principles of "international peace and security." Additionally, as a regional requirement, there is the law of the 1947 Rio Pact.

The legal principles of Article 2(4) fall into two parts. In the first, there is imposed a duty on states to conform to the principles of international peace and security by refraining from conduct which would unnecessarily and improperly aggravate interstate relations. It may be concluded that the placing of weapons of mass destruction in orbit, or upon a celestial body, or nuclear testing in the atmosphere, outer space, or under water, would have such an effect, and that such conduct is not legally permissible. In the second, assuming the prior orbiting of weapons of mass destruction, or their emplacement upon a celestial body, or nuclear testing of the kinds inhibited in the Moscow Treaty, 1963, the principles of Article 2(4) permit action designed to correct such dangerous conditions. The action taken to correct such threats to international peace and security is neither in violation of Article 2(4) nor inconsistent with the purposes and principles of the Charter.

¹¹ For the background of Article 2(4), see Davis "First Commission: General Provisions," in the *United Nations Charter: Development and Text*, 413 *International Conciliation* (September 1945); 6 *United Nations Conference on International Organization* 80-82, 696-705; Russell and Muther, *A History of the United Nations Charter*, Chapters V-IX, XXIV, and pages 455-457, 473-476, 655-657, 672-675, 1067 (1958). Compare McDougal and Feliciano, "Legal Regulations of Resort to International Coercion: Aggression and Self-Defense in Policy Perspective," 68 *Yale Law Journal* 1146 (1959).

Article 2(4) is, therefore, the source of a legal duty requiring states to desist from aggravated courses of action. It also is the source of affirmative corrective action—authorizing, but not requiring, states (either in an individual or collective capacity) to engage in protective measures intended to correct departures from fundamental legal principles. This is not inconsistent with Chapter VI of the United Nations Charter and its provisions for the pacific settlement of disputes.

3. The National Right to Self-Defense

Just as the legal rights and duties which flow from the Charter concepts of international peace and security apply on the surface of the globe and to the superjacent airspace, so they apply also to outer space. And, as the legal concepts of self-defense have applicability on earth and in its airspace, they likewise have applicability to outer space.

The international law of self-defense is derived from two principal sources. These are general customary international law and the Charter of the United Nations. Both sources are closely interrelated, and in fact the customary right of self-defense must be taken into account in interpreting the Charter provision, namely, Article 51.

Article 51 provides in part:

Nothing in the present Charter shall impair the inherent right of individual or collective self-defense if an armed attack occurs against a member of the United Nations, until the Security Council has taken the measures necessary to maintain international peace and security * * *.

Customary international law has long recognized that self-defense is an inherent national right. It has been referred to as an "inalienable right"¹² which has been "confirmed in the United Nations Charter."¹³ Although Article 51 of the Charter uses the term "armed attack," it has not generally been thought that a state must actually have felt the force of an adversary's weapons before it may engage in legitimate self-defense. In looking at the customary principles of

¹² Deputy Secretary of Defense Gilpatric, *Department of Defense Press Release No. 1426-62*, (September 5, 1962).

¹³ *Ibid.* Compare, Brownlie, "The Use of Force in Self-Defense," 37 *Brit. Yb. Int'l L.* 219-247 (1961). A careful analysis has been made by Bowett, *Self-Defense in International Law* (1958); see also Mallison, "Limited Naval Blockade or Quarantine-Interdiction; National and Collective Defense Claims Valid under International Law," 31 *George Washington University Law Review* 367 (1962). Compare, Kunz, "Individual and Collective Self-Defense," 41 *A.J.I.L.* 872 (1947).

international law, it becomes clear that a state may engage legally in self-defense in provocative circumstances, particularly where it reasonably appears that the dangers being mounted against it may, if placed in motion, materially or substantially impair its way of life or prejudice its right to its own continued existence.

A restrictive interpretation has been made of the national right of self-defense by those writers who have placed a literal construction on the term "armed attack" as contained in Article 51. This would require a state to remain passive until after a physical attack had been launched, and has been based on the view that the best evidence of an armed attack is the resultant force. This view refuses to take into account considerations of intention and manifestations of intent as demonstrated by observable facts and conditions short of the ultimate resort to force.

In the space age, and particularly in the context of the possibility of introducing an artificial satellite into orbit equipped with a weapon of mass destruction, it does not appear to be reasonable to accept the literal interpretation of "armed attack" as the condition precedent to employment of measures of self-defense. An excessively narrow view of the meaning of "armed attack" is quite "out of keeping with the dynamic quality of law and with the tempo of our twentieth century social complex."¹⁴

Scientific and technological considerations make it impossible to accept the passive or "sitting duck"¹⁵ view of armed attack from any of the earth's dimensions. Both general customary international law and the rule of Article 51 provide adequate foundations upon which to base action relating to the impermissible presence in space of weapons of mass destruction. This has been stated in McDougal and Lipson as follows:

Certainly, in the absence of general agreement and community institutions to restrict inclusive uses to peaceful purposes, states will continue to assert, within the limits of their effective power, a unilateral competence to police or destroy space objects re-

¹⁴ Christol and Davis, "Maritime Quarantine: The Naval Interdiction of Offensive Weapons and Associated Materiel to Cuba, 1962," 57 *A.J.I.L.* 532 (1963). Compare McDougal and Feliciano, *Law and Minimum World Public Order* 121-260 (1961); Dillard; Pugh; Friedman; Lissitzyn in *Columbia Law School News* (November 7, 1962).

¹⁵ Berle; Lissitzyn in *Columbia Law School News* (November 7, 1962). The term "sitting-duck" is also used by McDougal and Feliciano in "Legal Regulation to Resort to International Coercion: Aggression and Self-Defense in Policy Perspective," *supra* note 11, at 260.

garded as impermissibly affecting the security of their land masses. With respect to the oceans, assertion of such unilateral competence has been made and accepted for many purposes, including the protection of health, revenue, internal monopolies, and so on. Conceivably, a similar development in demand and reciprocal tolerance for a variety of purposes may occur with respect to outer space.¹⁶

Cooper has considered the precise issue presented here, and has asked "What are the rights of self-defense in outer space?" and "Concretely, when and where may a nation in self-defense attack a suspected spacecraft?"¹⁷ He has also asked "Is it permissible for a state to intercept in outer space a foreign spacecraft known to be armed with a nuclear warhead and thereby constituting a source of potential attack on any state flown over?"¹⁸ After a careful review of restrictive interpretations of Article 51 on the part of Kunz,¹⁹ Kelsen,²⁰ Jessup,²¹ and Krylov, and less literal interpretations of the meaning of "armed attack" by Goodhart,²² and McDougal,²³ Professor Cooper has rejected the restrictive interpretations. In doing so he stated that "neither Article 2 nor Article 51 nor the Charter as a whole has, in my considered judgment, limited or destroyed the fundamental right of a State to defend itself by force against imminent attack or danger threatening its existence. * * * Certainly the Charter was not intended as an instrument of reverse world feeling against aggression."²⁴

Goodhart has stated the correct rule that "all powers which have not been expressly or by necessary implication transferred to the United Nations remain in the individual States. They hold these powers not by grant but by sovereign right."²⁵ Lord Kilmuir, Lord Chancellor of Great Britain, told the British Parliament on November 1, 1956, with regard to the meaning of Article 51 that it "would

¹⁶ McDougal and Lipson, *supra* note 2, at 427.

¹⁷ Cooper, "Self-Defense in Outer Space and the United Nations," 45 *Air Force and Space Digest* 51-52 (February 1962).

¹⁸ *Ibid.*, 53.

¹⁹ Kunz, "Individual and Collective Self-Defense in Article 51 of the Charter of the United Nations," 41 *A.J.I.L.* 871 (1947). It should be noted that in some instances views on this subject expressed immediately after the drafting of the Charter have been modified by an appreciation of the scientific and technological changes in weaponry.

²⁰ Kelsen, *The Law of the United Nations* 797-799 (1951).

²¹ Jessup, *A Modern Law of Nations* 163-166 (1955).

²² Goodhart, "The North Atlantic Treaty," 79 *Recueil des Cours* 193 (1951).

²³ McDougal and Feliciano, *supra* note 11, at 1057.

²⁴ Cooper, *op. cit.*, 55.

²⁵ Goodhart, *op. cit.*, 55.

be a travesty of the purpose of the Charter to compel a defending State to allow its opponent to deliver the first fatal blow.”²⁶ The situation was well summarized by Green, a distinguished British international lawyer, as follows: “The right of self-defense was inherent before the Charter was written; it has remained inherent and as such it covers preventive self-defense as well as self-defense resorted to after you have already been exterminated.”²⁷ Elihu Root in addressing the American Society of International Law summed up the basic proposition in 1914 when he stated that each sovereign state has the right “to protect itself by preventing a condition of affairs in which it will be too late to protect itself.”²⁸

The extent of national sovereignty is no measure of the area in which a state may employ legitimate measures of self-defense. Thus, self-defensive acts may be employed on and above the high seas, and they may also be used in outer space. The legal conditions under which valid self-defense may be engaged in have been well known and well respected for many years. The classic instance of self-defense, including limitations thereon, resulted from the destruction in the United States by British forces of a vessel, *The Caroline*, which had been employed in 1837 on the Niagara River in support of Canadian insurgents. It was the British contention that the act of destruction was an instance of valid self-defense. Daniel Webster, the American Secretary of State, asserted that it was incumbent upon the British and Canadian authorities to justify the attack, and that in order to do so it would be necessary to show “a necessity of self-defense, instant, overwhelming, leaving no choice of means and no moment of deliberation.”²⁹ He also stated that where self-defense under such circumstances was admitted as being lawful, it was incumbent upon the actor to demonstrate that nothing unreasonable or excessive had been done, for, as he indicated “the act, justified by the necessity of self-defense, must be limited by that necessity and kept clearly within it.”³⁰

If, under appropriate conditions, self-defense may be pursued within the territory of another state, it would appear that there could be no objection to recourse to self-defense, if the conditions are appropriate, where the nonsovereign dimension of outer space is used. There would appear to be an even greater right, and certainly

²⁶ “House of Lords Debates,” 6 *Int'l & Comp. L. Q.* 330 (1957).

²⁷ *International Law Association, Report of the 48th Conference* 517 (1958).

²⁸ Root, “The Real Monroe Doctrine,” 8 *A.J.I.L.* 432 (1914).

²⁹ *The Caroline*, 2 Moore, *Digest of International Law* § 217 (1909). Compare Jennings, “The Caroline and McLeod Cases,” 32 *A.J.I.L.* 8 (1938).

³⁰ *The Caroline*, *ibid.*

no involvement with the doctrine of sovereignty, because of the provisions of General Assembly Resolutions 1721 (XVI), 1802 (XVII), and 1962 (XVIII). The latter states that neither outer space nor celestial bodies might be made the subject of "national appropriation by claim of sovereignty, by means of use or occupation, or by any other means." It would not be an invasion of the sovereign rights of a state to engage in legitimate self-defense in outer space.

However, it would still be the duty of the state engaging in self-defense to employ only such measures as were reasonably proportionate to the threat. This doctrine requires an offended state to use only such proportional means as are necessary to induce the offending state to withdraw from its offending course of conduct, provided, however, that the offended state is not required by international law to delay its response in the face of any real threat. For example, in the 1962 maritime quarantine of the shipment of offensive weapons and associated materiel to Cuba, the interdictory activities were restricted to areas of the high seas radiating out from Cuba a limited distance, and the interdictory activities were limited to prescribed offensive weapons and associated materiel. This response was considered by the United States to be proportionate to the condition resulting from the management and delivery to Cuba by Soviet personnel of offensive weapons constituting a threat to the United States from Cuba.³¹ However, in those circumstances it was abundantly clear, if Soviet weapons and personnel had not been removed from Cuba as the result of the limited coercive pressures imposed upon Soviet shipping, that additionally more severe coercive measures would have resulted. The doctrine of proportionality possesses a multioptioned spectrum of coercion. This was described by Secretary of State Rusk during the 1962 Cuban crisis in these words: "We must tailor our response, individually and collectively, to the degree and direction of the threat, be firm in our convictions and resolute and united in our actions."³²

The doctrine of proportionality is not restricted to a condition of self-defense. Proportionality applies with equal logic to coercive actions taken in response to the need to enforce a condition of international peace and security pursuant to the Charter of the United Nations, the Rio Pact, or any other international agreement specify-

³¹ Christol and Davis, *supra* note 14, at 525-545. Compare Meeker "Defensive Quarantine and The Law," 57 *A.J.I.L.* 515 (1962).

³² Rusk, "American Republics Act to Halt Soviet Threat to Hemisphere," 47 *Department of State Bulletin* 721 (1962). On the concept of reasonableness, see McDougal, Lasswell and Vlasic, *Law and Public Order in Space* 293, 304-6 (1963).

ing a duty to conform to the needs of international peace and security. In this connection, it should be noted that the 1962 maritime quarantine of the shipment of offensive weapons and associated materiel to Cuba was not based exclusively, or even essentially, on the legal doctrine of self-defense, but rather was based principally on the right of a collectivity of states, acting pursuant to a regional agreement within the compass of the U.N. Charter, to uphold, in an affirmative way, the principles of international peace and security. The Legal Adviser to the Department of State has described the 1962 quarantine action as one "authorized under the Rio Treaty of 1947, whose primary purpose was to organize law-abiding states for collective action against threats to the peace."³³

4. Reprisals

Reprisals in international law constitute a form of self-help, and are not unrelated to the doctrine of self-defense. In modern theory they are regarded as a form of force used by a wronged state against another because the first state has engaged in unlawful conduct adverse to the interests of the injured state. Were it not for the wrongful conduct of the guilty state, the response through the act of reprisal would be regarded as unlawful. A distinguishing feature of a reprisal has been that a national response need not conform to the form of conduct practiced against it, but may "take any form of coercion which the state believed to be effective to secure redress."³⁴ Fenwick has also noted that "In principle, reprisals of the more drastic character were not to be distinguished from acts of war."³⁵ However, it is true that "acts of force performed by one State against another by way of reprisal * * * are not necessarily acts initiating war."³⁶ The other state always has an election as to whether it considers such acts as constituting an act of war.

³³ Chayes, "Law and the Quarantine of Cuba," 41 *Foreign Affairs* 555 (1963). Compare Chayes, "The Legal Case for U.S. Action in Cuba," 47 *Department of State Bulletin* 763 (1962).

³⁴ Fenwick, *International Law* 533 (3d ed. 1948). See *The Naulilaa Incident*, 8 *Recueil des Decisions des Tribunaux arbitraux mixtes* 409, 422-425 (1928); Briggs, *The Law of Nations* 677-679 (1938).

³⁵ Fenwick, *op. cit.*, 533.

³⁶ II Lauterpacht-Oppenheim, *International Law* 203 (7th ed. 1952). Kunz has noted that "reprisals can be conceived of as sanctions, because they presuppose a delict, even if auto-determined by the state exercising the reprisals * * *" "Sanctions in International Law," 54 *A.J.I.L.* 325 (1960); Article 41 of the U.N. Charter enumerates measures open to the Security Council not involving the use of armed force. Article 42 makes reference to measures by air, sea, or land forces. It is generally agreed that the use of such measures should be preferably collective rather than unilateral, when the maintenance of international peace and security is at issue.

Under these circumstances the illegal introduction into outer space by one country of an instrument of mass destruction contrary to General Assembly Resolution 1884 (XVIII) might be considered by another state to entitle it to act similarly. But, as reprisals need not conform to the initiatory action, it would be possible—through a reprisal action—for the harmed state to effect the destruction of, or to deal more sparingly with, the offending space vehicle and its weapon. At that point each state would have to decide whether the initial act and the response would result in a condition of war. The gravity of the initial illegal conduct would grant to the harmed state the right to use all suitable means to protect itself.

In this area, as in the areas of self-defense and the maintenance of conditions of international peace and security, the international law of outer space will play a role. States, in arriving at policy decisions respecting the variable uses of outer space, must take into account “the ways in which authority will and should be prescribed and applied, will undoubtedly grow by the slow building of expectations, the continued accretion of or repeated instances of tolerated acts, the gradual development of assurance that certain things may be done under promise of reciprocity and that other things must not be done on pain of retaliation.”³⁷

B. COMPETENCE TO DEAL WITH CERTAIN USES

A state, such as the United States, which continually has given evidence of its support of the rule of law in world affairs, must always maintain a sound and sufficient legal basis for its activities in outer space. In the face of potential national conflicts of interest as to the uses of outer space and celestial bodies, the United States, along with other states, possesses certain options relative to legal conduct.

The enforcement of legal rights may be collective. On the other hand, it may be individual. These methods of procedure must be examined in the context of the principles of international peace and security as well as in the context of self-defense. Further, the concept of the maintenance of international peace and security as derived from the Charter of the United Nations must be examined in the additional context of enforcement by a regional agency or by separate and distinct collective security organizations. When emphasis is placed on a regional agency, such as the Organization of American States, attention must be focused on Article 52(1) of the Charter. When emphasis is placed on a wider collective security process, then

³⁷ McDougal and Lipson, *supra* note 2, at 420.

attention must be focused on Article 2(4) of the Charter, but at the same time taking into account the Charter in its entirety. At the same time due attention must be given to the general principles of international law, including general customary international law. This also holds true when enforcement procedures are contemplated through mutual security arrangements.

In such situations the emerging international law of outer space has benefited very materially from the law of the sea. Both the high seas and outer space and celestial bodies fall into the legal category of *res communis omnium*. This means that each dimension is free for the use of all, but that in no case does such freedom entail unlimited or unrestricted conduct. As has been previously suggested, two important modern limitations upon such freedom of use are that neither dimension may be used exclusively by one state, and lawful uses are restricted to nonaggressive, i.e., peaceful and beneficial activities.

The 1962 maritime quarantine of the shipment of Soviet offensive weapons and associated materiel to Cuba, as one aspect of the law of the sea, affords valuable insights to the principles and rules of the international law of outer space. The 1962 maritime quarantine was a collective action, authorized under Article 52(1) of the U.N. Charter, and was implemented under the terms of Article 6 of the Rio Treaty. Article 52(1) provides in part:

1. Nothing in the present Charter precludes the existence of regional * * * agencies for dealing with such matters relating to the maintenance of international peace and security as are appropriate for regional action, provided that such * * * agencies and their activities are consistent with the Purposes of the United Nations.

There is much legal analysis upholding the view that a collectivity of states, as in the maritime quarantine, has the right to uphold affirmatively international peace and security when such action is taken pursuant to a regional agreement within the compass of the Charter of the United Nations.³⁸ This view has received the express approval of the United States Department of State.³⁹

As is well known, the maintenance of international peace and security by collective measures is a primary responsibility of the United

³⁸ Christol and Davis, *supra* note 14, at pp. 537-539; McDevitt, "The UN Charter and the Cuban Quarantine," 17 *The JAG Journal* 72-75 (1963).

³⁹ Chayes, *supra* note 33, at 555 and 763; Meeker, "Role of Law in Political Aspects of World Affairs," 48 *Department of State Bulletin* 87 (1963).

Nations. Article 1(1) of the Charter, in setting forth the purposes and principles of the United Nations, provides:

To maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace.

Article 24, which makes provision for the functions and powers of the Security Council, grants to that body the "primary responsibility for the maintenance of international peace and security." This responsibility, although primary, is not exclusive, and as a result of the "Uniting for Peace Resolution" of November 3, 1950, the General Assembly assumed the authority to engage in the maintenance of international peace and security during the Korean police action. This resulted in the implementation in Korea of collective security measures against aggressors located in North Korea and in Red China, and was certainly a notable precedent in the use of collective measures to protect the right of the world community to international peace and security.

Collective defense measures may also be instituted pursuant to Article 51 of the Charter of the United Nations. Such action is lawful when a state is obliged to engage in self-defense pending appropriate action on the part of the Security Council (or General Assembly pursuant to the Uniting for Peace Resolution) to maintain international peace and security. Article 51 also makes express provision for "the inherent right of individual" self-defense. In both instances the state or states engaged in individual or collective self-defense are required to report action taken by them to the Security Council. The Security Council, pursuant to Article 51, and the General Assembly, pursuant to the Uniting for Peace Resolution's interpretation of the Charter, continue to have authority to take such action as is deemed reasonably necessary to maintain or restore international peace and security.

Article 51 makes no legal delineation between collective or individual self-defense other than in terms of the number of participants. However, the distinction between maintenance of international peace and security on the one hand, and self-defense on the other is marked. Self-defense may be either individual or collective. The presumption is that the maintenance of international peace and security would be by collective processes, although this is still open to some doubt, and

it may be possible to find situations in which the maintenance of international peace and security could be accomplished, initially, by individual means.

In a recent analysis of the theory of collective self-defense, McDevitt has come to the conclusion that a choice between collective and individual self-defense is not a legal one. It was his view that practical conditions such as the nature of the provocative act, the type of danger likely to befall the receiving state, the capacity of the Security Council to take adequate control of the situation, the manner in which the offending state created the dangerous condition, and whether the defensive action taken was imperative under all of the attendant circumstances had to be taken into account in arriving at a decision.⁴⁰ In the space age, where time itself has taken on a new dimension and where the existence of fearful weapons of mass destruction would constitute a threat of a new order of magnitude, the political and military considerations would seem to argue for individual self-defense, if the threat were to emanate from a space-borne weapon of mass destruction.

Although the term self-defense emphasizes individual as opposed to collective or universal defense, it should not be overlooked that the successful defense of one state serves as a substantial benefit to the whole community. Still, individual self-defense as a legal doctrine is subject to national abuse. In the 1962 Cuban situation, the government of Cuba asserted that it was permitted to position offensive weapons on its shores because of its need to defend itself against aggression from the United States.⁴¹ Germany attacked Poland in 1939 because of the claimed necessity for German "self-defense" against "aggressive" Polish intent. The doctrine has, throughout

⁴⁰ McDevitt, *supra* note 38, at 75-82. Compare Brownlie, *supra* note 13, at 219, and Bowett, *supra* note 13.

⁴¹ Third parties are prone to employ the term "aggression" in passing political judgment on interstate relationships. Thus the Soviet government during the 1962 Cuban crisis stated that the President of the United States in upholding the collective quarantine action had tried "to justify these unprecedented aggressive actions by alleging that a threat to the national security of the United States emanates from Cuba." Further, "The United States Government accuses Cuba of allegedly creating a threat to the security of the United States. It is hypocrisy, to say the least, to allege that small Cuba can encroach on the security of the United States of America." The Soviets added, "all weapons of the Soviet Union serve and will serve the purposes of defense against aggressors." Further, "the Soviet Government will do everything in its power to thwart the aggressive designs of the imperialist circles of the United States, to safeguard and consolidate peace on earth." *New York Times*, October 24, 1962. Compare, Tunkin, "Introduction," 1960 *Soviet Year-Book of International Law* 22 (1961).

history, been convenient to those states which have sought to violate the sovereignty and territorial integrity of other states or to engage in power politics in the international arena.

For this reason the use of collective measures is generally to be preferred to individual coercive activities. In the international community, no less than within the municipal processes of states, the rule of law generally requires that the first reference of disputes be to community legal processes. The maintenance and extension of man's central values require conformity to this goal. The Charter of the United Nations, as a legal document, as well as the conscience of mankind, reflects the "Judgment of the world community that collective action is to be preferred to the unrestricted use of force by individual nations * * *." ⁴² It has often been urged that States living under the regime of that Charter can no longer find justification for the use of force in their mere unilateral declaration." ⁴³ For these reasons it has often been suggested that "the willingness of states to undertake the enforcement of international peace and security is the mark of conscience and a developed standard of values." ⁴⁴ The same holds true for the collective enforcement of the legal condition of self-defense. ⁴⁵

A sound policy decision between the use of collective as opposed to individual processes for the maintenance of legal rights in outer space must depend on the nature of the threat to community and individual expectations for international peace and security. Many voices have pointed to the dangers which may be directed toward states from outer space. ⁴⁶

The nature of the dangers, and the need for immediate response to threatened harm from outer space, must necessarily affect a nation's choice to employ individual or collective measures. It also suggests the need for inordinate caution in arriving at a decision to position weapons of mass destruction in outer space. In this connection, Berkner in 1958, noted that it may be necessary to use such a weapon as a military force "but that its employment is sufficiently dangerous

⁴² Chayes, *supra* note 33, at 553-554.

⁴³ *Ibid.*

⁴⁴ Christol and Davis, *supra* note 14, at 538.

⁴⁵ It should be noted that a preference for collective processes may serve the interests of those states possessing extensive and reliable security commitments.

⁴⁶ Gavin, *War and Peace in the Space Age* 220-1 (1958); White, "Air and Space are Indivisible," *Air Force* 40 (March 1948); White, "The Aerospace and Military Operations," 12 *Air University Quarterly Review* (Winter-Spring 1960-1961); Lerner, *The Age of Overkill* (1962); Lapp, *Kill and Overkill* (1962).

to the uses in its present total form to imply that it can be used only with the greatest circumspection and for compelling motives.”⁴⁷ President Eisenhower’s Science Advisory Committee, in 1958, stated a national policy when it observed “We wish to be sure that space is not used to endanger our security. If space is to be used for military purposes, we must be prepared to use space to defend ourselves.”⁴⁸ Killian, in 1932, reconfirmed this view when he stated that for the sake of the free world the United States “must not slacken in (its) determination to maintain military strength adequate to deter an aggressor. This is still, in my view, the surest way to deter war and to give a sense of confidence and stability to the Free World.”⁴⁹

In 1962 President Kennedy stated that the United States could not go “unprotected against the hostile misuse of space any more than we go unprotected against the hostile use of land or sea.”⁵⁰ In the same month, Secretary of State Rusk told the Senate that “no great nation can ever abandon its elementary right of unilateral action if that becomes necessary for its own security.”⁵¹ Although the response in October 1962, to the threat posed by the Soviet Union in Cuba was a collective one, President Kennedy in answer to a hypothetical question relating to that situation remarked that “the United States has the means * * * as a sovereign power to defend itself. And, of course, exercises that power; has in the past; and would in the future. But we, of course, keep to ourselves and hold to ourselves, under the United States Constitution, and under the laws of international law, the right to defend our security. On our own, if necessary—though we, as I say, hope to always move in concert with our allies, but on our own, if that situation was necessary to protect our survival or integrity of other vital interests.”⁵²

It seems reasonably clear that the right of a state to its continued existence, as reflected in its fundamental concern for its own security, is the central issue in international law and relations. International law authorizes states to protect their security rights by reference to

⁴⁷ Berkner, “Earth Satellites and Foreign Policy,” 36 *Foreign Affairs* 225 (1958).

⁴⁸ *Introduction to Outer Space*, The President’s Science Advisory Committee I (1958).

⁴⁹ Killian, “Shaping a Public Policy for the Space Age,” in Bloomfield, ed., *Outer Space Prospects for Man and Society* 187 (1962).

⁵⁰ *New York Times*, September 13, 1962.

⁵¹ Rusk, “Situation in Cuba,” *Senate Committees on Foreign Relations and Armed Services, 87th Congress, 2nd Session* 33 (1962).

⁵² *New York Times*, November 21, 1962.

the legal doctrines of maintenance of international peace and security and of self-defense. Each doctrine may be implemented by collective measures. Self-defense may be implemented by individual measures, and perhaps international peace and security may be protected through the same procedures.

At the present stage of the development of world institutions, it remains the duty of each state to determine for itself (although it may make this determination in a community forum) what conditions must exist for it to be secure. A state is therefore able to determine for itself what it regards as an improper invasion or unpermitted reduction of that essential condition of security. A state is also authorized, at least initially and in theory, to determine for itself the procedures whereby corrective action may be undertaken, and in this connection it may determine that it will be bound by collective procedures. On the other hand, each state has reserved from the application of collective procedures its inherent right of individual self-defense, and depending on the nature of the threat to a state's security, it may be obliged to determine for itself how it will go about reestablishing that requisite degree of security. It may be obliged to have recourse to immediate and unilateral self-help.

The means for maintaining or obtaining the requisite degree of security are theoretically, and perhaps, practically, unlimited. International law has sought to regulate the use of force, and additionally, as has been pointed out, has sought to assure to collective processes the maximum management of the use of force. However, when fundamental national interests are at stake, the seeming illogic of the employment of substantial force—general war—may not be persuasive. The alternative of limited war may also prove illusory. Nonetheless, at some point the demands of national security may require the use of force or coercion, and reason requires that it be proportionate to the anticipated benefits. Security, like law or history, is a seamless web. Therefore, challenges to it, in and from any dimension, including outer space, require the most searchingly intelligent responses which man is able to bring to bear on any question.

The range of man's interests in security requires attention not only to his need for protection. These interests must also take into account an affirmative awareness that the unilateral avoidance of destructive conduct, including violence, in the dimension of outer space may contribute to world security. For national abstention from violence or the threat of violence in or from space may result in reciprocal conduct on the part of other states. Unilateral avoidance of destructive violence and joint expectations respecting limitations on the use of force are capable of producing a condition of minimum public order

in outer space. The existence of such a condition can contribute materially to restraint in the use of outer space. The avoidance of reckless threats and provocative conduct may direct attention to the fact that national security is not exclusively the product of force.

In arriving at a means to promote the security of a state—either by collective or unilateral means—it is necessary to take into account values supportive of the national interest in addition to the central one of security. Such additional values include, but are not limited to those of proper respect for legal processes and institutions, protection of national interests through nonviolent means, the health and welfare of its citizens, the protection of cultural and spiritual progress, the maintenance of a viable economy, a wide distribution of dignity and respect, and a protection of learned traditions within an environment capable of producing rational change.

The means to promote such goals in addition to coercion include, among others, a continual enlargement of individual skills and knowledge, an enhanced resource reservoir capable of producing greater wealth and fuller employment, a dynamic and progressive science and technology, a more effective utilization of social and political capabilities, an extended national reputation resulting from a growth in prestige and respect, and, finally, more positive uses of the capabilities of international organizations, and in particular the United Nations.

Through the latter, for example, it may be possible for a state to demonstrate its willingness to make use of peaceful processes to resolve international disputes. In alluding to this use of the United Nations, Secretary Rusk stated in 1962, that one of the greatest strengths possessed by the United States in the post-Cuba crisis was that “we carry our purposes on our sleeve, and the purposes we carry are for peace within the framework of the United Nations kind of world community * * *.”⁵³

It has long been the policy of the United States to rely on the United Nations as a means for arriving at an acceptable regime for outer space. In 1960 Assistant Secretary of State Wilcox stated that “only the United Nations is able to cope with the complicated, political, legal, and technical problems involved in assuring the open and orderly conduct of space activities.”⁵⁴ As has already been suggested, a further modest beginning in this direction would be the initiation

⁵³ “An Hour with the Secretary of State,” *CBS Reports*, November 28, 1962, 8.

⁵⁴ Wilcox, “The United Nations: Crisis and Opportunity,” 43 *Department of State Bulletin* 512 (1960); Compare Secretary of State Herter, “United Nations Foreign Policy under the Eisenhower Administration,” 44 *Department of State Bulletin* 146 (1961).

of verified inspection and control procedures for satellite launches.⁵⁵

There is general consensus that the United Nations will serve effectively as a means to minimize international tension, and even conflict, resulting from national activities in outer space. However, the chance of good success, particularly where the larger issues of security are involved, has been described as "highly improbable because the Great Powers would expect to forego prestige advantages, possible military advantages, and at least some degree of military privacy, if they internationalized the development of outer space."⁵⁶ Short of internationalizing the development of outer space, it is clear that important benefits have already resulted from cooperation between the two resource nations. But as Knorr has indicated, such cooperative benefits accrue when four conditions exist, namely, where there is a consensus that the space activity is primarily concerned with peaceful, i.e., nonaggressive and beneficial, purposes; where the activity is very expensive; where the activity is routine and lacking in prestige considerations; and where operational requirements, such as weather forecasting or television communications, require such cooperation.⁵⁷

Within the context of selecting either collective or individual processes in order to cope with the prior positioning by a state of a weapon of mass destruction in outer space or on a celestial body, international law offers little detailed guidance. It does, however, provide suitable insight into the question of whether recourse must be had to the principles of international peace and security or to self-defense. In either event it may be well to recall under such circumstances law has been described as a concession by force to reason. In the area examined here it would appear that reason would be well served by the avoidance on the part of states of tension creating situations. Recognition of this fact has undoubtedly contributed to the existence of the Moscow Treaty, 1963, and General Assembly Resolution 1884 (XVIII) of October 17, 1963.⁵⁸

⁵⁵ *Supra*, pp. 306-318.

⁵⁶ Knorr, "On the International Implications of Outer Space Activities," in Goldsen, ed., *International Political Implications of Activities in Outer Space* 151 (1960). Compare, Abt, *The Problems and Possibilities of Space Arms Control* 1-52 (1961).

⁵⁷ Knorr, *op. cit.*, 151.

⁵⁸ It will be recalled that in this Resolution the General Assembly unanimously called on all states "(a) To refrain from placing in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, installing such weapons on celestial bodies, or stationing such weapons in outer space in any other manner; (b) To refrain from causing, encouraging or in any way participating in the conduct of the foregoing activities." *U.N. Doc. A/RES/1884 (XVIII)*. Annex 13, *infra*, pp. 462-463.

C. PROCESSES TO INSURE THE REASONABLE USES OF OUTER SPACE

With the growing recognition on the part of states that a principle of law exists supporting the free and peaceful use of outer space, there has also come a demand that space activities and uses be controlled in such a way that states may enjoy the fullest benefits of the principle. At this time attention will be called to the extent to which international law provides processes for the regulation of space uses. Such processes will be considered under the heading of noncoercive (permissive) processes and coercive (also permissive) processes. However, before surveying these processes, it is necessary to examine analytically certain factors which are pertinent to the selection of such processes.

1. Factors to Be Considered in Selection of Processes

The world community, including its separate but component parts, must take into account both practical and legal considerations in arriving at decisions relating to the reasonable uses of outer space. It would be pertinent, for example, for a state to relate its response to the conduct of another state, which through fast and covert action had positioned in outer space or on a celestial body, on a relatively permanent basis, a major offensive missile threat capable of nuclear mass destruction. A wholly different response might be in order if the satellite were equipped with observational devices permitting it to scan and report both cloud cover and happenings taking place on or above the high seas or within a state. In the one case the use would very probably constitute a deliberate and extraordinarily significant modification of the existing world power structure—a power structure which at the present time rests upon an “uneasy equilibrium depending upon a highly tentative balance of terror for its success.”⁵⁹ On the other hand, observation, without more, fails to create a danger of overt harm. Rather, it provides a means of ascertaining the intentions of other nations, and hence, may contribute measurably to a condition of world stability.

a. *Precise Nature of Facts*

The precise facts to be taken into account with regard to ascertaining whether outer space is in fact being used for reasonable purposes are not different from the facts to be taken into account in the use of the high seas. Similarity in patterns of conduct has resulted in a similarity of legal status. Both, it has been suggested, follow the

⁵⁹ Christol and Davis, *supra* note 14, at 526.

concept of a *res communis omnium*, that is, both are open to reasonable use subject to reasonable controls.

The following constitute the major, but not necessarily all of the facts to be taken into account: as suggested above, the nature of harm, if any, to the maintenance of international peace, security, and self-defense; the precise nature and location of a given weapon or weapons; the comparative weapons capabilities and power structures of the contending nations (including their friends and allies); the physical location of the threatening space vehicle; the reality of the threat, if at all; the over-all nature of the political environment; the extent of implicit or express international agreement, including the existence of agreement, if any, on prelaunch registration, verification, and inspection of satellites; the extent to which resource and other states possess reciprocal interests and are motivated by the desire to achieve accommodations of conflicting interests; and the availability and effectiveness of alternate processes. These factors, as well as others, are constantly in motion, so that a perception of these considerations as well as their interpretation constitutes both an ongoing and grave national responsibility. When such factors as those enumerated are balanced against such imponderables as the prospect of achieving international (or regional) support for collective measures—or the supposedly somewhat more predictable unilateral responses of a single state—it becomes readily apparent that factual problems do play a very large role in determining whether or not a state may engage in a given use of outer space. Without unnecessarily pyramiding difficult factual considerations, it might also be noted that space uses cannot be separated from international attitudes toward a condition of general and complete disarmament. By reason of the fearsome capabilities of weapons of mass destruction situated in space, the policy maker who must determine the extent of reasonable use of outer space has grave responsibilities. Activities and processes in space, for better or worse, may very largely condition man's expectations as to future activities in other areas.

2. Noncoercive Processes

This classification is intended to describe a means of achieving a reasonable use of space in which the role of military force plays no part. This distinction is made in view of the fact that force, in its larger sense, may take many forms of which military force is but one instance. Permissive measures to insure that outer space is used for reasonable purposes include such pacific, collective, or unilateral, actions as political, economic, or scientific procedures and public

opinion. As means of achieving compliance with legal expectations they may be regarded as sanctions, but, as stated above, they do not involve the use of military force or coercion.

A means of expressing disapproval of state action and thereby endeavoring to induce a modification of state conduct has been to withdraw diplomatic recognition. This is an expression of disapproval employing political processes and involves legal consequences. At times it has been regarded as a prelude to war, but it need not be. Political disapproval may also find expression in a policy of nonrecognition.

Economic disapproval may take many forms. The best known are economic boycotts. This form of disapproval may be circumscribed by treaties and other agreements.⁶⁰

Occasionally, scientific measures have been employed to induce a state to modify its course of conduct. This has usually taken the form of nondistribution of scientific data acquired by one state and useful to another. This measure has been used rarely because of the facility with which other states may retaliate, and because of the common need for this kind of data.

Public opinion in a world of power politics may occasionally seem to be a slender reed upon which to place reliance in an effort to induce a state to conform to community expectations. Still, it is not without its influence, and there are those who honor it. This was seen by Gray who wrote that states take into account "the sanction arising from the opinion of civilized nations that the rules [of international law] are right, and that civilized nations are morally bound to obey them."⁶¹

a. *Legal Institutions and Activities*

Legal institutions, such as the United Nations, the International Court of Justice, and the Permanent Court of Arbitration at The Hague, are equipped to assist in determining the standards of reasonable use of outer space. Suitable *ad hoc* bodies may be created to serve this goal.

⁶⁰ According to Kunz "Non-military—economic, financial, diplomatic—sanctions, reprisals not involving the threat or use of military force, remain legal under the U.N. Charter. But the Bogota Charter of the Organization of American States also expressly forbids the use of coercive measures of an economic or political character to force the sovereign will of another state and obtain from it advantages of any kind." "Sanctions in International Law," *supra* note 36, at 332.

⁶¹ Gray, *The Nature and Sources of Law* 131 (2nd ed., 1927). Compare Root, "The Sanction of International Law," 2 *A.J.I.L.* 451 (1908).

The United Nations, through the Resolutions of the General Assembly, and particularly through the deliberations of the Committee on the Peaceful Uses of Outer Space, has already made great contributions to the development of a structured legal regime for outer space.⁶² It will continue to do so, particularly through the process of drafting a series of technical conventions dealing with such matters as liability and jurisdiction and return of space vehicles and personnel.⁶³ There is much support favoring the establishment of an office within the United Nations—either through the expansion of the Outer Space Affairs Section of the Secretary-General's Office—or, perhaps, by way of a new specialized agency, whereby greater international control might be exercised over activities in outer space. A primary function of such an office or agency would be to manage traffic control and also to engage in verified inspections and registrations of space launches.

The International Court of Justice may be used to determine the meaning of international legal concepts contained in customary and express international law. This may be accomplished either through litigious cases or by way of advisory opinions. Litigation between states as to the meaning of reasonable use of outer space would provide a most desirable process for the clarification of principles and rules of the emerging law of outer space. This would permit full use of the principles set forth in Article 38 of the Statute of the Court. A similar conclusion is attained if the problem were presented in the form of a request for an advisory opinion.

It should be noted, however, that in the past the Soviet Union has successfully avoided the status of a defendant before the Court. It is almost completely improbable that the United States would be able to maintain a litigious action against the Soviet Union before the Court in view of the latter's probable use of the contention that a space problem affected the Soviet Union's domestic jurisdiction. Although Article 36(6) of the Statute of the Court makes provision that the Court shall be entitled to resolve issues of jurisdiction, the United States in accepting the compulsory jurisdiction of the Court made a reservation permitting it to determine for itself what constitutes a matter of domestic jurisdiction. The reservation operates on a reciprocal basis. Therefore, it would be possible for the Soviet Union to claim the use of the United States reservation in order to

⁶² *Supra*, pp. 188–318.

⁶³ *Infra*, pp. 458–460, 463–470.

forestall adjudication of space problems. This reservation has been popularly known in the United States as the Connally Amendment.⁶⁴

In view of anticipated difficulties in clarifying the substance of space law through litigious processes, there remains the possibility that valuable judicial talent may be utilized through the process of advisory opinions.

The United Nations has provided the most effective forum yet conceived for the discussion and enlargement of space law principles. It may be assumed that in the future the Committee on the Peaceful Uses of Outer Space will continue to reflect the ongoing forces of customary international law, and will prepare drafts of principles and more detailed technical rules which will be presented to member states as resolutions, declarations, treaties, and conventions. Continued discussions and debates will provide great insight into both the direction which the law is taking and also the speed with which it is being assimilated into national conduct.

3. Coercive Processes

The spectrum of coercion ranges all the way from the slightest plus over zero to unlimited and unrestricted force encompassed in the concept of general war. It is generally agreed that the amount of coercion employed should be proportionate to the dangers actually faced or within the range of reasonable contemplation. Reasonableness depends upon the practical circumstances of a given time and place and may be measured generally in terms of the amount of international tension. The latter, of course, is the product of physical capabilities and national intent, and both can be measured in terms of express and implied conduct.

Such processes may be either national or international, e.g., individual or collective. They may be based on two principal and alternative legal theories, namely, the right to maintain international peace and security, and/or the inherent right of self-defense. As has been indicated above, the collective process is preferable and possesses great moral and practical value when the danger of harm is somewhat remote and the need for a response is not immediate, or at least, may be delayed. The unilateral response may be employed

⁶⁴ *Hearings on S. Res. 196 Before a Subcommittee of the Senate Committee on Foreign Relations*, 79th Cong., 2d. Sess. 1 (1946); 92 *Cong. Rec.* 10624, 10694-97; Christol, "The United States and Prospects for a World Rule of Law," 7 *South Dakota Law Review* 24 (1962); Preuss, "The International Court of Justice, the Senate, and Matters of Domestic Jurisdiction," 40 *A.J.I.L.* 736 (1946). Compare *Case of Certain Norwegian Loans: I.C.J. Reports, 1957, 9.*

when there is an immediate and proximate threat of substantial harm.

Based on the requirements of proportionality and taking into account the conclusions previously arrived at that peaceful, i.e., non-aggressive and beneficial, uses of outer space are reasonable and therefore legal,⁶⁵ it is suggested that the following protective uses may be employed. Let us assume that the fact situation is one in which one state has placed an uninspected and unregistered satellite into earth orbit or where the nature and capabilities of the satellite are unknown to the subjacent state. It is suggested that the subjacent state might proceed in the following sequence to protect its legal rights.

First, it might engage in surveillance of the orbiting satellite from positions either on the surface, in the airspace, and in outer space. In the course of such surveillance it might approach the satellite in order to make visual or photographic or other mechanical forms of inspection. At this point harmful physical contact would be avoided. This could be based on the existence of a reasonable safety zone. Second, if the surveillance were to disclose facts indicating that the presence or purpose of the satellite involved a restricted amount of danger to the inspecting state, then the latter might cause the offending space vehicle to modify its course. This assumes that modification of direction were in fact possible, that the modification of course would reduce or minimize the contemplated danger, and that the inspected satellite would agree to such procedures. Third, if due cause were shown to the inspecting nation and if the inspected satellite had failed to modify its course upon request, then, if the condition were sufficiently grave, the inspected satellite might be taken into possession or intercepted by the complaining state.

At this point several options would be open to the respective states. If the vehicle were proven to be in reasonable use, it might be released to continue in orbit, or if this were not physically possible, it would be safeguarded by the inspecting state until it could be returned safely to the launching state. If, on the other hand, the space vehicle were in fact engaged in conduct unreasonably dangerous to the existence of the inspecting state, it might be rendered inoperative through destruction or other processes. In any event, personnel on board would be protected and repatriated to the national state.⁶⁶

⁶⁵ *Supra*, pp. 263-319.

⁶⁶ Goedhuis, after analyzing this problem, has concluded that "It is difficult to deny to a state the right to destroy a satellite which it believes presents a threat to the security of the state." He consulted the views of such writers as

The foregoing procedures, it is submitted, are preferred processes when there is an intention that general war should not result. This condition, short of general war, might result from the use of such processes if at the time of launch it is understood that a state has a reasonable right to assure itself that the presence of an orbiting satellite is not designed to cause it great and irremedial harm. However, any process of inspection, no matter how reasonable and proportionate to the security needs of a state, may in fact, though needlessly, be made the basis for a general war. An early express agreement among resource states on detailed security procedures in space would greatly ameliorate this condition.

Much of the problem would be resolved by general acceptance of the view that the presence of an observational type satellite conforms to the standards of reasonableness. However, until it becomes possible to conduct positive identification of vehicles and objects in orbit or until suitable verification, inspection, and registration procedures have been established, the problem will continue to vex states.⁶⁷

There is a growing consensus among writers that it is reasonable for states to use all available scientific and technological processes to ascertain the purposes and capabilities of transiting satellites. This is supported by the realization that space vehicles and devices may be equipped to achieve a great variety of uses. Thus, Crane has suggested postlaunch practices, which may be necessary in the inter-

Kittrie, Quarles (Deputy Secretary of Defense), and Becker (Legal Adviser to the Department of State) in arriving at the foregoing conclusion. Goedhuis noted that Kittrie held that if a reconnaissance satellite threatens national security it might be destroyed or caused to malfunction and that Becker was of the view that something short of armed attack would justify national security measures. Quarles, on the other hand, urged that the mere presence over the United States of a Soviet reconnaissance satellite need not be considered to be objectionable. Goedhuis, "Some Trends in the Political and Legal Thinking on the Conquest of Space." 9 *Netherlands International Law Review* 130-131 (1962). It has been urged, since at the present international law does not prohibit reconnaissance from outer space, that the intentional destruction of a peaceful reconnaissance satellite "would appear to be proscribed by the Charter as a 'use * * * of force * * * inconsistent with the purposes of the United Nations.'" The same author has concluded that "It would appear * * * that the doctrine of self-defense is too narrow to support such action." "Legal Aspect of Reconnaissance in Airspace and Outer Space." 61 *Columbia Law Review* 1082-1083 (1961).

⁶⁷ It has been stated in connection with scientific and military observation satellites that "it is not only difficult to tell these kinds of observation satellites apart, it is impossible to do so." Katz, "The Technological Environment and its Prospects," in Goldsen, ed., *International Political Implications of Activities in Outer Space* 14 (1960).

ests of national security, namely, acquisition, tracking, identification, neutralization, capture, and destruction.⁶⁸ Kittrie has urged that if an observational satellite threatens national security it may be destroyed or caused to malfunction.⁶⁹

The Davies Draft Code of Rules on the Exploration and Uses of Outer Space, in taking into account the security needs of states, has made provision for the diversion or destruction of space vehicles under certain circumstances. The draft accepts the view that no spacecraft may at any stage of its flight enter the airspace of another state without the consent of the latter, except in the course of making an emergency landing. In the event of any other entry, the subjacent state may "divert or destroy any spacecraft which enters its airspace without * * *" the prescribed national consent.⁷⁰

The term "interception" has also been used. Thus, Cooper has asked, "is it permissible for a State to intercept in outer space a foreign spacecraft known to be armed with a nuclear warhead and thereby constituting a source of potential attack on any State flown over?"⁷¹ General Gavin urged as early as 1958, the development of a "satellite interceptor."⁷² Antisatellite operations could involve the "destruction or neutralization of a space object and this is far easier if one shoots from the orbital plane of the space object, approximately under the satellite, even in the case of a maneuverable satellite."⁷³

It may be expected that common practices now current on the high seas and in the airspace would be available in the identification of space vehicles. Under the law of the sea, the vessel of one state may approach the vessel of another state in order to ascertain its identity,⁷⁴ although "warships on the high seas have complete immunity from the jurisdiction of any State other than the flag State."⁷⁵ Under certain circumstances a naval vessel may challenge, board, search,

⁶⁸ Crane, "Law and Strategy in Space," 6 *Orbis* 283 (1962); compare Crane, "Soviet Attitude Toward International Law," 56 *A.J.I.L.* 704-706 (1962).

⁶⁹ Kittrie, "'Aggressive' Uses of Space Vehicles—the Remedies in International Law," *Fourth Colloquium* 198-219 (1963).

⁷⁰ *Draft Code of Rules on the Exploration and Uses of Outer Space* 14 (n.d.).

⁷¹ Cooper, *supra* note 17, at 53.

⁷² Gavin, *supra* note 46, at 224.

⁷³ Cagle, "The Navy's Future Role in Space," 89 *United States Naval Institute Proceedings* 91 (January 1963).

⁷⁴ *The Marianna Flora*, 11 *Wheaton* 1, 3 (1826); Brittin and Watson, *International Law for Seagoing Officers*, 2nd ed., 101 (1960).

⁷⁵ Article 8(1), *Convention on the High Seas*, U.N. Doc. A/CONF.13/L.53 and Corr. 1.

and inspect the papers of a nonnational vessel.⁷⁶ Capture may result when there has been a serious violation of international law by a vessel on the high seas.⁷⁷

Approach to vessels may be accomplished by other naval vessels or by aircraft, and in the latter instance may be quite close. In 1960 the Soviet Union protested the "buzzing" of its vessel the "Vega" by United States public aircraft on and over the high seas. The "Vega" although ostensibly a fishing trawler, was equipped with extensive electronic equipment and had pursued a lengthy intelligence mission along the eastern coast of the United States. In rejecting the Soviet protest concerning the close approach to the "Vega" by United States aircraft, which protest was described as being "without foundation," the United States noted that "in such circumstances there is every reason for establishing the identity of such a vessel and the nature of its activity."⁷⁸ In recent years Soviet aircraft have also flown at low altitudes over United States naval vessels on the high seas.

In conclusion, it should be noted that the foregoing recitation of coercive processes available to states, either collectively or individually, are alternative rather than exclusive processes. States desiring to keep the peace and to achieve a minimum amount of world order may readily achieve this goal in outer space by exercising self-restraint in positioning weapons of mass destruction in that environment.⁷⁹ Further, they may have recourse to all of the noncoercive processes which have been suggested. Failing that they may employ, where the challenge to national security is extreme, the proportionate coercive processes which have been described. However, in the formulation of national space policy, every nation should take into account the possibility that its decision to make unreasonable uses of outer space may deny to all the fullest realization of the resources and potentials of outer space. It can be predicted that space resource states will not regard international law as irrelevant in arriving at policies seeking to maximize the peaceful and beneficial uses of outer space. A wide range of sanctions, depending on the nature of transgression, are recognized by international law. The key to their use is the doctrine of reasonableness as influenced by the quality of the danger.

⁷⁶ Articles 22 and 23, *Convention on the High Seas*, *ibid.*

⁷⁷ Schwarzenberger, *A Manual of International Law* 126 (4th ed. 1960); McDougal and Burke, *The Public Order of the Oceans* 885-893, 806-823 (1962).

⁷⁸ "United States Note of July 21, 1960," 43 *Department of State Bulletin* 213 (1960); compare, Brownlie, *supra* note 13, at 247-254.

⁷⁹ By reason of General Assembly Resolution 1884 (XVIII), 1963, there appears to be specific international recognition of the duty to avoid such space conduct. Annex 13, *infra*, pp. 462-463.

