

EXPANDING SPACE LAW INTO THE 21st CENTURY

by

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Abstract

The necessity for expanding space law is clearly discernible in scientific, technological and societal trends that are now identifiable for planning purposes. There are two related paths along which space activities are progressing: exploration and functional uses. Together they are producing information to extend knowledge of the Universe, provide practical benefits, and assist in protecting Planet Earth. This paper defines and analyzes the motives for creating space law. An outline of policies, international and national institutions provides an inventory of the present situation. The trends likely to produce problems and situations requiring legal responses include a decrease in government funding for space activities; an increase in commercialization and privatization for profit; the necessity for reconciling non-profitable space exploration with profit-making ventures; expansion of international cooperation between nongovernmental entities; increased attention to protection of the global environment; the necessity for coordination within and between nations; increased reliance on smaller satellites; the long lead time for accomplishing the Moon/Mars' missions. Although international space law has become a recognized branch of inter-

national law, strengthened by nations' compliance, the basic guiding principles are not generally known by all personnel entering this field, especially over a period of generations. To ensure that all participants observe the same basic "rules of the road", it is necessary to codify, in a simplified form, the basic foundation principles adopted by States for the conduct of their space activities.

Introduction

The International Space Year commemorates two dramatic events in the history of civilization: the age of discovery and exploration of the Earth in 1492, and the beginning of the space age in 1957. Both events are memorable because they set in motion great dynamic forces with continuing consequences that change the world. The contributions of the World Space Congress in synthesizing all elements of space development will become a reference point for many years. Projects are being planned well into the 21st century, and we have the responsibility of preparing for anticipated changes. An estimate of the future of space law must take account of achievements made during the past 35 years and foreseeable societal developments of which law is a part. The achievements can be measured by the number and va-

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riety of institutions, and their necessary regulations that extended the scope of space law in keeping abreast—and sometimes ahead—of advancing space science and technology.

Definition¹

Space law is an abbreviated term for laws adopted in response to legal problems and situations arising from the exploration and uses of outer space. This law is international and national in covering areas and functions. The areas are outer space, including celestial bodies, and in relevant circumstances, airspace and the Earth. The functions, carried on by legally constituted institutions, are mainly communications, meteorology, navigation, and remote sensing; these are augmented by additional uses developed when advances are made in space science and technology. The legal aspects of space activities occur, and must be addressed, in accordance with a unified framework of national and international space laws. This is particularly true in the United States where the Constitution provides that treaties become “the law of the land”. The abbreviated term—space law—has been subject to some narrow interpretations which assume legal coverage is limited to activities taking place only in outer space or to subjects in five UN-formulated treaties. In order to determine the full scope of space law, where we stand now and are likely to develop in the future, it is necessary to identify space laws that have developed within the total context of using outer space for functions performed on the Earth.

Sources of Space Law²

We accept the assumption that space problems and situations are multi-disciplinary and require for their solution a knowledge of space science and tech-

nology as well as relevant facts from basic, life, and engineering sciences. Social science disciplines include history, law, political science (management and international relations), economics, sociology, social psychology, philosophy, anthropology and the humanities. In order to cope with space problems effectively—that is, to promote beneficial results and avoid harmful consequences—it is necessary to identify each discipline, and insofar as law is concerned, identify and select only the provisions judged to be applicable to specific circumstances. The sources of space law that can be examined for this approach are—

1. International law in general.
2. Space law treaties, conventions and agreements. This category should include not only the treaties formulated by the United Nations Committee on the Peaceful Uses of Outer Space (UNCO-PUOS), but also relevant treaties on arms control, environmental protection, liability for damage, etc.
3. International customary law.
4. Bilateral and regional agreements.
5. Statutes of international space organizations outside the United Nations' structure, e.g., International Telecommunications Satellite Organization (INTELSAT), International Maritime Satellite Organization (INMARSAT), European Space Agency (ESA), etc.
6. Space-related regulations of United Nations' specialized agencies, especially the International Telecommunication Union (ITU).
7. Sources for interpretation, e.g., United Nations' resolutions, negotiating histories, analyses by experts, and the Vienna Convention on the Law of Treaties.
8. National space laws and implementing regulations. This category includes particularly the integration of national with international space laws. Some nations have national laws which are not specifically designed but may be

applicable to space activities, especially those involving commercialization and protection of the environment. Nations with space programs have specific space laws and general laws that may apply to situations created by space activities, e.g., insurance, granting contracts and licenses.

Motives for Space Law

When the space age began dramatically with the orbiting of the first satellite on October 4, 1957, governments recognized instantly that the device could be used for war as well as peace. They were strongly motivated to prevent war and maintain use of the new environment for beneficial purposes. The satellite program had begun as part of the International Geophysical Year (July 1, 1957 - December 31, 1958), undertaken by 67 cooperating nations. Scientists and engineers working in this international atmosphere were quick to inform governments of the practical benefits to mankind that could be expected from peaceful uses, particularly from improved global communications, weather forecasting, and observations of the Earth. The international nature of space science and technology revealed by the fact that satellites orbited the Earth in approximately 90 minutes while disregarding national boundary lines, was a compelling influence in the development and scope of space law. Furthermore, an international network was required for tracking satellites and obtaining information needed on Earth. Orderly scheduling of launches was essential for certain scientific missions. Dangerous elements in spacefaring obviously required regulation to ensure safety of lives and property. Statutes were necessary for new institutions and for expanding those with space-related functions.

International space cooperation³ was believed in by nations as the method for

maintaining conditions essential for preventing war and producing worldwide benefits. Historically, the idea that the reason for international space cooperation is to share the cost of expensive projects was added much later. Although the space age began with only the Soviet Union and the United States' space programs, neither nation considered monopoly as a policy, but worked through the years in creating a variety of patterns of international cooperation. Space law developed within and outside the United Nations' framework. Estimates of future expansion must take into account the foundation that already exists in adopted policies and operational institutions.

United Nations and Space Law

The first consideration by the United Nations of legal measures to control outer space for peaceful purposes was in connection with disarmament negotiations.⁴ An early result was the Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space, and Under Water, which entered into force on October 10, 1963.⁵ A number of United Nations' resolutions⁶ emphasized the continuing concern of the international community for preventing hostilities in outer space, and these documents include some of the basic principles which were later embodied in space treaties. The Ad hoc Committee on the Peaceful Uses of Outer Space was established on December 13, 1958,⁷ and was succeeded by the permanent Committee on the Peaceful Uses of Outer Space (COPUOS) on December 12, 1959.⁸

The present situation in the United Nations' structure for outer space, which we must take into consideration in assessing the future, is that COPUOS has formulated five treaties and three resolutions and has an agenda of items under consideration. The Outer Space Affairs

Division, the Office of Legal Affairs, and coordinating procedures, strengthen professional attention to space activities on a continuing basis. The specialized agencies have expanded their statutes to take advantage of space science and technology for improving their functions, and a network of cooperating relationships has grown up between these United Nations' entities and functional international organizations that have been established outside the United Nations' structure. The compliance of the international community with these institutional and legal concepts is significant and can be attributed to the reality that successful operation of technical space functions depends upon strict adherence to scientific and technological facts.

In assessing the five treaties formulated by COPUOS and its Legal Subcommittee, there are two significant factors to note: (1) they were decided by consensus of all the COPUOS member nations; and (2) the 1967 Outer Space Treaty (OST) established basic guiding principles and is often called the "Magna Carta" for space activities. The four space treaties that were subsequently adopted represent expansions of articles in the 1967 OST, necessitated by advances in space science and technology. In adding new and more detailed provisions for specific subjects, they repeat some basic provisions in the 1967 OST, which has the effect of building an harmonious body of space law. The five treaties are—⁹

1. Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies. Entered into force on October 10, 1967; ratified by 91 nations.

2. Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space. Entered into force on December 3, 1968; ratified by 80 nations.

3. Convention on International Liability for Damage Caused by Space Objects. Entered into force on September 1, 1972; ratified by 73 nations.

4. Convention on Registration of Objects Launched into Outer Space. Entered into force on September 15, 1976; ratified by 36 nations.

5. Agreement Governing the Activities of States on the Moon and Other Celestial Bodies. Entered into force on July 11, 1984; ratified by 8 nations.

Unlike the first four treaties whose provisions are observed by space-faring States, the Moon Agreement has failed to gain general acceptance since 1979 when it was first recommended. The States that have ratified it are Philippines, Uruguay, Chile, The Netherlands, Austria, Pakistan, Australia, and Mexico. Although this Agreement repeats some provisions from the 1967 Outer Space Treaty, and is an elaboration of its Article IV, two additional provisions are so controversial that they deter adherence: (1) the statement that "the Moon and its natural resources are the common heritage of mankind..." which has a property connotation not included in the accepted "province of all mankind," which is simply descriptive of the location where space activities occur; and (2) the provision that when natural resources on the Moon are about to become feasible for exploitation, the ratifying States shall establish an international governing regime including—

An equitable sharing by all States Parties in the benefits derived from those resources, whereby the interest and needs of the developing countries as well as the efforts of those countries which have contributed either directly or indirectly to the exploration of the moon, shall be given special consideration. (Article II (7) (d)).

It is interesting to note that the provisions of this Agreement would apply to Mars as one of the celestial bodies,

unless specific legal norms are ratified for them. The "common heritage of mankind" principle is confined to this Moon Agreement and does not apply to any of the other space treaties, or others. The Moon Agreement will be reviewed by the United Nations General Assembly in 1994 to determine whether it requires revision. Article 18 specifies that the review take into account "any relevant technological developments." It would be unusual for the Agreement to be sent back to COPUOS for amendment.

Main Provisions for the International Legal Space Regime. Fundamental guiding principles that have been adopted and achieved compliance by nations and international organizations, both within and outside the United Nations, are specified in the 1967 Outer Space Treaty. States Parties have agreed to conduct their space activities according to the following major policies, some of which have been expanded in the agreements of 1968, 1972, and 1976: (1) Exploration and use of outer space, including the Moon and other celestial bodies, must be for the benefit of all countries, without discrimination, and be "the province of all mankind;" (2) International cooperation in scientific and legal aspects shall be facilitated; (3) Claims of sovereignty are prohibited; (4) Weapons of mass destruction are prohibited around the Earth, stationed in outer space or installed on celestial bodies; (5) The moon and other celestial bodies shall be used "exclusively for peaceful purposes"; (6) Astronauts are "envoys of mankind in outer space;" (7) States are internationally responsible for national activities in outer space, the Moon and other celestial bodies, and undertake to authorize and supervise both governmental and non-governmental entities, and further more avoid harmful contamination and changes in the environment; (8) States are internationally liable for damages and

shall maintain a registry of launched space objects over which they retain jurisdiction and control while in outer space, on a celestial body or return to Earth; (9) Provision is made for the settlement of disputes and informing the UN Secretary General of essential information.

United Nations Resolutions¹⁰

Direct Broadcast Satellites. The question of free flow of information versus control of satellite broadcasts could not be settled by consensus. The unusual step was taken of removing the subject from the UNCOPUOS to the General Assembly where a resolution, passed by majority vote, recognized free flow but required some arrangement with receiving countries. This type of decision is not effective in gaining compliance as compared with consensus.

Remote Sensing. Some nations feared their natural resources would be exploited, while others insisted on freedom for observation to develop benefits and protect the global environment. Consensus was achieved on a set of principles agreeing to the right for global remote sensing while all States would have the right to access data obtained by other states from their countries.

Nuclear Power Sources. The UN General Assembly is scheduled to vote in December 1992 on Principles Relevant to the Use of Nuclear Power Sources in Outer Space, recognizing that such sources are essential for some outer space missions, and providing guidelines and criteria for safe use and assistance, as well as international responsibility for national activities, liability for damage, and the settlement of disputes.

United Nations Specialized Agencies¹¹

A number of United Nations specialized agencies were performing functions that

could be improved by using space science and technology. Their statutes and implementing regulations were expanded to take care of the legal aspects of moving actively into the new space environment. Foremost among these agencies was the organization with jurisdiction over global communications.

International Telecommunication Union (ITU)¹² Space communications is undoubtedly the most significant application of space technology as all uses depend on sending and receiving information. The ITU is responsible for the assignment of orbital positions and radio frequencies. ITU regulations are complied with by the world's nations to ensure order and prevent chaos in communications, and are strengthened by their treaty status. ITU regulations are an essential part of space law in providing guidelines for international and national organizations providing communications' services. All these organizations, both within and outside the UN structure have cooperating procedures and are keyed into basic provisions of the 1967 Outer Space Treaty for peaceful purposes and international cooperation.

Additional Space-Related Agencies. Examples of UN specialized agencies with space-related functions requiring technical/legal regulation are, notably, the International Civil Aviation Organization (ICAO) for aircraft regulation; the World Meteorological Organization (WMO) for weather forecasting; the World Health Organization (WHO) for global health conditions; the Food and Agriculture Organization (FAO) for agricultural matters; and UNESCO for environmental monitoring and education. Those who work in these fields, nationally and internationally, take account of the legal principles adopted to ensure the orderly advancement of benefits.

Intergovernmental Space Organizations Organized Outside the United Nations¹³ European Space Agency (ESA).

ESA's legal status was established by the Convention of May 11, 1975 as a regional organization to promote European cooperation in space research and technology for exclusively peaceful purposes. Five annexes to this legal document set forth guidelines for privileges and immunities, financial provisions, optional programs, internationalization of national programs, and industrial policy. ESA must observe international law and specific space laws which have been ratified and adopted by its member States. The ESA Council made Declarations of acceptance of the first three international agreements elaborated from the 1967 Outer Space Treaty:

Rescue and Return Agreement on December 31, 1975.

Liability Convention on September 23, 1976.

Registration Agreement on January 2, 1979.

Thus, ESA can be considered as a launching State under the Liability Convention (Art. 1 (c)); if astronauts sent by ESA into outer space encounter emergencies, they would be subject to rescue and return provisions. In compliance with the Registration Agreement, ESA maintains a registry of satellites it owns on behalf of its members; and the UN Secretary General is informed of launches. Situations involving jurisdiction and control of satellites are handled between ESA and its member States on a case-by-case basis.

ESA observed the United Nations resolution on Direct Broadcast Satellites (37/92, December 10, 1982) when Ariane launched Olympus in 1989. ESA also observed the guidelines on remote sensing in United Nations resolution 41/65 adopted by the UN General Assembly on December 4, 1986. In carrying on its various operations, ESA's experience is a valuable basis for decisions on new space laws. ESA has Official Observer status at sessions of the UNCOPUOS

where space science, technology and legal aspects are given continuous attention.

International Telecommunications Satellite Organization (INTELSAT). INTELSAT is a global commercial satellite communications system with 124 member States cooperating in accordance with legal provisions in two 1973 treaty agreements on Organization and Operations, as well as regulations. Only ITU members are eligible to join, but non-members can have access to the INTELSAT space segment so that approximately 180 nations, territories and possessions are now being served. INTELSAT combines commercial operations for profit with concepts of public service, the purpose being, as stated in the Preamble of the INTELSAT Agreement, "to achieve a global commercial telecommunications satellite system to provide, for the benefit of mankind, the most efficient and economical facilities possible, consistent with the best and most equitable use of the radio-frequency spectrum and orbital space." INTELSAT is often regarded as a model for international space cooperation, largely because it has succeeded in separating political decisions from technical operations while maintaining adjustments. Other reasons advanced for its success are favorable economic factors created by the continuous demand for global communications; the solution of problems of equitable access; voting according to the type of decision to be made; efficient technical and economic operations; adoption of relevant United Nations' principles; clear definitions; a realistic combination of government and non-government entities; and cooperation with other relevant institutions, particularly the International Telecommunication Union, other space communications entities, and the United Nations.

International Maritime Satellite Organization (INMARSAT). INMARSAT was

established in 1976 by two documents, the Convention on Organization and an Operating Agreement. In 1985, amendments expanded services to aeronautical communications, aircraft and ships of all nations. The purposes of INMARSAT are "to make provision for the space segment necessary for improving maritime communications and, as practicable, aeronautical communications, thereby assisting in improving communications for distress and safety of life, communication for air traffic services, the efficiency and management of ships and aircraft, maritime and aeronautical public correspondence services and radio-determination capabilities". The nature of INMARSAT is similar to INTELSAT in combining a commercial enterprise with public service. All States may become members of INMARSAT which now is composed of 64 nations.

International Organization of Space Communications (INTERSPUTNIK). The Agreement on the Establishment of the International System and Organization of Space Communications between the Soviet Union and its adherents entered into force on July 12, 1972. The objective was to achieve "cooperation and coordination of efforts in the design, establishment, operation and development of the communications system" (Article 1.2). The system had been established in 1971, and the objective was similar to that of INTELSAT, although it was not a global system. In 1991, INTELSAT and INTERSPUTNIK began to consider a Memorandum of Understanding. The MOU was approved by INTERSPUTNIK's Board and in November 1992 will be submitted to INTELSAT for ratification. Programs and activities of mutual interest will be discussed, as well as the possibility of INTELSAT's leasing capacity from INTERSPUTNIK.

Space Agency Forum on International Space Year (SAFISY).¹⁴ This organization, composed of representatives

of space agencies of 24 nations and about 10 affiliates, was established to exchange information and ideas to enhance observation of the International Space Year - 1992. Its success in coordinating national space programs has led to plans for continuing operations in the future. The connection of SAFISY with space law is indicated by the fact that all its members have ratified the 1967 Outer Space Treaty. All except Spain ratified the 1968 Agreement on Rescue and Return of Astronauts and Space Objects; all except Norway and Thailand ratified the 1972 Liability for Damage Convention; and the 1976 Registration of Space Objects was ratified by all SAFISY members except Brazil, Finland, Italy, Norway, and Thailand, while Argentina signed. ESA, a member of SAFISY, declared its acceptance of the legal rights and obligations of the 1968, 1972, and 1976 treaties. All SAFISY members ratified the INTELSAT treaty and EUMETSAT, and all except Thailand ratified INMARSAT. In coordinating programs, national space agencies represented on SAFISY must take account of the international legal space regime to which their countries belong.

Regional Space Organizations¹⁵

ARABSAT. States of the Arab League are the only nations eligible for membership in this regional system which was organized on April 14, 1976. The purpose is to provide "general and specialized services in the field of telecommunications for all member States of the Arab League in accordance with technical and economic criteria accepted in the Arab and international quarters". This action was approved under Article 14 of INTELSAT's Definitive Agreement provided "no significant economic harm" comes to INTELSAT.

EUTELSAT. ESA developed European Communication Satellites for commercial operation. Interim arrange-

ments of 1977 developed into a Convention establishing EUTELSAT (which has 27 member nations) "to operate on a sound economic and financial basis having regard to accepted commercial principles" (Article 5b).

EUMETSAT. The European Organization for Meteorological Satellites was established on June 19, 1986 after developments which began in 1972. In 1977 ESA launched a Meteosat to assist the global system of the World Meteorological Organization (WMO). Approximately 16 member States are organized to ensure the operation of satellites concerned with research in weather, climate and environment.

International Customary Law¹⁶

In pursuing space activities, two practices have been followed so consistently by nations since the beginning of the space age that they can be classified as "customary space law": (1) no nation objected to satellites flying over its territory, leading to the conclusion that a right has developed for such flights; (2) there is no legal definition of where airspace ends and outer space begins, but space activities have been conducted on the basis that airspace extends to the height where planes can fly, and outer space begins where objects can go into orbit.

United States in the Context of Space Law¹⁷

A number of nations have adopted space laws and the United States has been selected as a case to illustrate the elements chosen for organization and management. Following the orbiting of the first Sputnik on October 4, 1957, the immediate problem requiring urgent attention was how to organize the government to carry on an outstanding space program. The legislative process

resulted in adoption of the National Aeronautics and Space Act of 1958 which embodied the following policies. NASA was created to develop civilian space applications while the Department of Defense retained military aspects. Coordination was identified as a necessity, not only between NASA and the Defense Department, but between NASA and other civilian government agencies. The National Aeronautics and Space Council was established to perform the coordinating function. The NASA Act declares that "it is the policy of the United States that activities in space should be devoted to peaceful purposes for the benefit of all mankind"; there should be "cooperation by the United States with other nations and groups of nations", and to implement this policy NASA was authorized to carry on a program of international cooperation. Thus, 9 years before the 1967 Outer Space Treaty, U.S. national space law provided the framework for a bipartisan foreign policy directed to peaceful purposes for mankind's benefit. The legal forms used to implement this policy include treaties, executive agreements, bilateral agreements, agency-to-agency agreements, Memoranda of Understanding, and letter agreements. The function of coordinating national programs was given to inter-agency groups when the National Aeronautics and Space Council was abolished on July 1, 1973, but this method proved ineffective and the National Space Council was created for coordination on April 20, 1989.

Presidential space policy directives are a definitive source of U.S. domestic space law. President Reagan's directive of February 11, 1988 stated that "United States space activities are conducted by three separate and distinct sectors (two strongly interacting governmental sectors Civil and National Security) and a separate nongovernmental Commercial Sector. Close coordination, coopera-

tion, and technology and information exchange will be maintained among sectors to avoid unnecessary duplication and promote attainment of United States space goals". Examples of major space laws enacted after the NASA Act of 1958 are the Communications Satellite Act of 1962, as amended, the National Science and Technology Policy, Organization, and Priorities Act of 1976, the International Maritime Satellite Telecommunications Act of 1978, the Land Remote-Sensing Commercialization Act of 1984, as amended, the Commercial Space Launch Act of 1984, and amendments in 1988. There has been a growing influence toward stimulating the private sector by investment, ownership and operation of space assets.

Space Commercialization¹⁸

International cooperation was the dominant influence in relations between nations for some years after 1957. Competition was a factor between governmental space programs of the United States and the Soviet Union, but it was not commercial. However, as opportunities increased for using space science and technology for profitable commercial ventures, competition expanded and created new patterns of relations between governments, governments and the private sector, and business enterprises. The dual motives of international cooperation and competition created problems of balancing situations whose legal aspects expanded the scope of space law. Briefly, the legal aspects of these activities emerge from providing services for space communications, remote sensing, meteorology, navigation, the manufacture and launching of satellites, placement in orbital positions, ground facilities, analysis of information obtained from satellites, liability for damage, insurance, government regulations and obtaining licenses for opera-

tions. For the future, we can anticipate an increase in legal cases and the settlement of disputes.

Trends

Trends to take into consideration for planning the future are (1) we can expect two different incentives for space developments to continue: non-profit space exploration primarily to increase knowledge of the Universe, and commercial enterprises undertaken solely for profit. Although these ventures can be related in certain cases, they tend toward forming two specialized groups of experts and supporters; (2) a decrease in government funding for space activities; (3) an increase in commercialization and privatization for profit; (4) an increase in the number of countries with space programs; (5) an expansion of functional uses which create problems of organization and management; (6) continuing international and national support for protection of the global environment; (7) expansion of international patterns of cooperation between nations, governments and the private sector, regions, and particularly between commercial entities; (8) demands for coordination of space activities within and between nations; (9) increased reliance on smaller satellites; and (10) the long lead time for exploration and settlements on the Moon and Mars, as well as stretching out the time to reach other goals, indicates a turnover of personnel and the consequent need for planning continuity in program funding and management.

Conclusions

The brief inventory in this paper of space organizations and practices reveals that space activities have been institutionalized and developed in accordance with general guiding legal principles designed to ensure peace and safety. These

foresighted directives constitute a "center of gravity" to which space organizations have consistently adhered since the beginning of the space age.

The development of beneficial space functions depends on observing the scientific and technical requirements for successful operations. Non-compliance with the rules of the road that have been established for specific functions, particularly space communications, would result in failure to provide information and services. Alignment of space science and technology with political and economic aspects, national and international, results in a strong base for compliance with regulations as compared to subjects that are largely ideological. Success depends upon scientists and engineers explaining to the legal profession what they need for effective operations and what they wish to avoid; there is no point in having more regulation than is necessary for attaining a given objective.

From 1957 to the present, space organizations have developed on a functional basis and this trend can be expected to continue. There is a maximum degree of international cooperation for peaceful purposes, stemming from the fact that applications of space science and technology are inherently global in nature.

Recommendations

In contrast to 1957 when we could write on a clean slate in an atmosphere of positive forces, we must now find solutions to legal problems created by tensions between international cooperation and competition, space exploration and commercial enterprises, reduced funding and choices between space development and other social values. During the unfolding future, the International Institute of Space Law could provide leadership by taking action on the following matters:

1) Appointment of a committee to prepare a document defining only the fundamental guiding principles of international space law, including customary law. As space science and technology become more diversified in their applications, many legal problems and situations will require for their settlement the use of laws that are not classified as "space" laws, and yet in such circumstances, adjustments must be made to paramount international agreements. The status of this document would indeed be a "Magna Carta".

2) A committee should be appointed to analyze pending issues such as proposals for a World Space Agency, demarcation of airspace and outer space, legal aspects of an aerospace plane, legal aspects of commercialization (insurance, the relation of governments to private entities), legal aspects of the exploration and settlement of Mars, and other matters requiring foresight. Such a report would be helpful to the United Nations Committee on the Peaceful Uses of Outer Space.

3) The IISL could plan for a series of case studies on the legal aspects of space applications that involve policy and program issues.

4) appointment of a committee to study and report on methods used by States to coordinate national and international space laws.

As we approach the 21st century, we should exercise foresight to ensure that we continue to use the space environment for peaceful purposes.

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