

EVOLUTION OF THE MAIN PRINCIPLES OF SPACE LAW IN THE  
INSTITUTIONAL FRAMEWORK OF THE UNITED NATIONS

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More than a quarter of a century ago, the first man-made object was successfully launched in orbit around the earth and this very fact marked the beginning of a new era in the life of mankind that we usually call the space age. Only a few years later, man himself entered outer space and by the end of the same decade, the first astronaut landed on the moon and brought back samples of rock from this celestial body.

The rapid progress of space science and technology opened far-reaching prospects for human knowledge, experience and know-how. First of all, it enabled us to learn much more about the Universe, our solar system as a whole and particularly about our own planet. The condition of a high value of life has become one of the most important news that has come to us by up-to-date space accomplishments, for the Earth is probably the only body of our solar system where intelligence and civilization exist.

Recent years of space activities have gained us further experience. It has become evident that man can not only survive but also stay and work in outer space without any substantial harm to his organism. The sojourn of cosmonauts on orbital stations of long duration and activities performed by them therein indicate that life and health may even improve in outer space, because in this environment, man escapes the effects of earth gravity and is protected against terrestrial stresses.

The quest for space exploration does not only serve its own purpose. Progress in space science and technology has been soon accompanied by endeavours to use its results for practical aims. Thus, new industries have been developing, based on the use of satellites for telecommunication, meteorology, geodesy, and navigation. Satellite communications have even become a profitable application of space technology, with over 100 countries having established links with several international satellite systems such as Intelsat, Intersputnik or Inmarsat. An ever growing number of nations are now operating or planning their own satellite communications, or are considering the establishment of regional systems. Moreover, the advent of direct broadcasting satellites is imminent.

Systematical observation of the earth from space has also clearly proved its utility and remote sensing satellite systems are now passing from an experimental to an operational stage of their performance. More and more countries participate in such programmes and already have, or are building, their receiving stations.

Some of the new technologies, e.g. in the field of electronics, originated from urgent space requirements. However, their economic, technical and cultural impact has become much broader. Many specialized instruments and techniques that have made our life more comfortable would not have been invented without an impetus from space ventures. Another significant part of the new industrialization is being developed in the space environment itself. Space manufacturing and processing will be soon contributing to purposes of our everyday life.

Moreover, outer space deserves a great attention from the point of view of resource policy since the earth cannot be considered an inexhaustible storehouse of all resources. The ever growing need for resources, which is one of the consequences of the world's

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economic growth, will inevitably lead to a greater interest in the exploration and exploitation of space resources, including the great potential of energy from outer space.

Nevertheless, the latest period of space activities has been mostly characterized by an emphasis on applications of space science and technology. The question of what practical benefits may be derived from space activities occupies most of the interest of governments, be they governments of more or less developed countries, when they consider different projects of space exploration.

In the developing world, space science and technology is regarded as a tool which could be helpful in narrowing the gap between industrially advanced and less developed countries. However, this requires to build up, both nationally and internationally, mechanisms and create adequate financial bases for enabling all States to benefit from space, bearing in mind their various economic and technological levels and different capacities to absorb new technologies.

Such a development will lead to increasing the number of nations participating in space activities and augmenting the degree of their involvement in different space programmes. In this way a progressive shift to a more active role of an ever growing number of nations in this field of human endeavours should be secured.

In the light of this development of space science and technology, as well as its social and economic impact, let me now turn to the emergence of legal principles of international cooperation in space activities in the institutional framework of the United Nations.

#### *United Nations and the first steps towards legal order for outer space*

The item relating to the peaceful uses of outer space was first included in the agenda of the United Nations General Assembly at its thirteenth session in 1958. At that session, the Assembly established the *Ad Hoc* Committee on the Peaceful Uses of Outer Space, composed of 18 members, and requested the Committee to report to the Assembly on the activities and resources of the United Nations, of the specialized agencies and of other international bodies relating to the peaceful uses of outer space, on future organizational arrangements and also on the nature of legal problems which might arise in carrying out programmes to explore outer space (resolution 1348 (XIII) of 13 December 1958).

However, though a substantive report<sup>1</sup> came out from the session of the *Ad Hoc* Committee, including an assessment of legal aspects involved, it did not serve as a basis of further endeavours in this field, for the composition of this body was not considered balanced by some of its members who did not consequently participate in its work.

One year later, at its fourteenth session, the General Assembly by resolution 1472 A (XIV) of 12 December 1959, established a permanent body, the Committee on the Peaceful Uses of Outer Space (COPUOS). Its original membership was 24 States, but it was later expanded several times: to 28 members at the sixteenth session (resolution 1721 E (XVI) of 20 December 1961), to 37 members at the twenty-eighth session (resolution 3182 (XXVIII) of 18 December 1973), to 47 members at the thirty-second session (resolution 32/196 B of 20 December 1977) and to 53 at the thirty-fifth session (resolution 35/16 of 3 November 1980).

In resolution 1721 (XVI) of 20 December 1961, a comprehensive programme for multilateral cooperation of Member States of the world organization was unanimously adopted by the United Nations General Assembly, and in the first part of this document, two fundamental principles were commended for guidance of States in the exploration and use of outer space. They were as follows:

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<sup>1</sup>UN Doc A/4141 of 14 July 1959.

a) International law, including the Charter of the United Nations, applies to outer space and celestial bodies; and

b) Outer space and celestial bodies are free for exploration and use by all States in conformity with international law and are not subject to national appropriation.

Thus, the first basis for developing a legal order for space activities was laid down. It was emphasized by these principles that the law of outer space should be growing from valid norms of international law, particularly those inserted in the United Nations Charter. At the same time the leading principles of the new legal régime for outer space were declared - those of freedom of exploration and use of outer space and celestial bodies in conformity with international law, and non-appropriation of any part thereof by States.

In the same resolution, the United Nations General Assembly invited COPUOS to study and report on the legal problems which might arise from the exploration and use of outer space. In other parts of this resolution guidelines were provided for the development of international cooperation in several fields which were considered at that time as feasible. They included a request for prompt information by States launching objects into orbit or beyond for the registration of launchings and maintaining a public registry of the information furnished by the Secretary-General. COPUOS was requested to provide, in cooperation with the Secretary-General, for exchange of information supplied by governments on a voluntary basis, as well as assist in the study of measures for the promotion of international cooperation in outer space activities. Still other parts of resolution 1721 (XVI) dealt with international cooperation in two specific areas; that relating to improvement of meteorology in the light of developments in outer space and that concerning communications by means of satellites that should be available, as it was stressed, to the nations of the world on a global and non-discriminatory basis.

At the same time the organizational structure for international cooperation in space activities crystallized. COPUOS has become the focal point for all space-related cooperative programmes furthered by the United Nations and most of its Member States<sup>2</sup> have actively contributed to promoting effective programmes in this area. Two subcommittees, one legal, the other scientific and technical, each composed of the same members as the parent body, held their first sessions in the spring of 1962. Later on, in successive stages of its deliberations, COPUOS also established four working groups of the whole, on navigational satellites, broadcasting satellites, remote sensing satellites and the use of nuclear power sources in outer space. In accordance with their terms of reference, these groups were considering relevant problems and drafted reports including valuable guidelines and other conclusions on their respective topics. Within the United Nations Secretariat, an Outer Space Affairs Division was set up in the Department of Political and Security Council Affairs, in order to assist COPUOS, and its Sub-Committees and working groups, in their work.

In fulfilling its task, the United Nations as the universal organization of a general character can rely on the cooperation with, and assistance of, various organizations and bodies having responsibilities in special fields of interest. From among the specialized agencies the Food and Agriculture Organization of the United Nations (FAO), the World Meteorological Organization (WMO), the International Telecommunication Union (ITU), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the

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<sup>2</sup>At present, COPUOS is composed of the following Member States: Albania, Argentina, Australia, Austria, Belgium, Benin, Brazil, Bulgaria, Canada, Chad, Chile, China, Colombia, Czechoslovakia, Ecuador, Egypt, France, German Democratic Republic, Federal Republic of Germany, Hungary, India, Indonesia, Iran, Iraq, Italy, Japan, Kenya, Lebanon, Mexico, Mongolia, Morocco, Netherlands, Niger, Nigeria, Pakistan, Philippines, Poland, Portugal, Romania, Sierra Leone, Sudan, Sweden, Syrian Arab Republic, Turkey, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland, United Republic of Cameroon, United States of America, Upper Volta, Uruguay, Venezuela, Viet Nam and Yugoslavia.

International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO) and the International Bank for Reconstruction and Development (World Bank) have been particularly involved in space matters, some of them having special operational groups for space affairs of their particular concern. Other organizations and bodies within the United Nations system, such as the Natural Resources and Energy Division (NRED), the Office of the United Nations Disaster Relief Coordinator (UNDRO), the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP) have also had active interests in space affairs, particularly in space technology and applications. Therefore, it is the United Nations system as a whole that has been stimulating international cooperation in space exploration and promoting a wide utilization of achievements reached in this vast field of human activities.

In order to harmonize the contributions of different organizations and bodies of the United Nations system and increase the effect of their common efforts, a special institutional arrangement was made upon the recommendation of COPUOS. A Sub-Committee on Outer Space Activities, established under the United Nations Administrative Committee on Coordination (ACC) and consisting of representatives of all units of the United Nations system interested in space matters, meets annually to coordinate activities in this field and suggest joint programmes.<sup>3</sup>

Moreover, a United Nations programme of space applications was initiated by COPUOS following the First United Nations Conference on the Exploration and Peaceful Uses of Outer Space held in Vienna in 1968. The main purpose of this programme has been the promotion of international cooperation by creating an awareness among the respective governmental agencies of the benefits from application of space technology. It also provides training and education for candidates from developing countries to gain experience in this field. Within the limits of its resources, the United Nations and other organizations and bodies of the United Nations system offer advisory and information services in the applications of space technology for development.<sup>4</sup>

In accordance with one of its purposes as spelled out in Art. 1 of the Charter, the United Nations has thus become a center for harmonizing the actions of nations in the attainment of their common ends in outer space. And the development of a solid legal basis for space activities has become an inseparable part of these efforts. For the first time in the history of international law, a set of written principles and norms governing different aspects of space flights have been developed rather quickly, almost simultaneously with the progress of space exploration itself. At the same time, efforts tending to the elaboration of the law of outer space have become a specific part of endeavours for the progressive development of international law and its codification in the sense of Art. 13 of the United Nations Charter.

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<sup>3</sup>As to the present state of affairs, see *Coordination of Outer Space Activities Within the United Nations System: Programmes of Work for 1983 and 1984 and Future Years*. Report of the Secretary-General, UN Doc. A/AC.105/309, 18 November 1982. See also the latest report of the Inter-Agency Meeting on Outer Space Activities, UN Doc. ACC/1983/27, 25 October 1983.

<sup>4</sup>As to the present stage of this programme, see the latest reports of the United Nations Expert on Space Applications to the Scientific and Technical Sub-Committee, UN Doc. A/AC.105/310, 17 January 1983, and UN Doc. A/AC.105/330, 7 December 1983.

*Principles of the present legal basis for space activities*

Between the years of 1966 and 1979, the present multilateral legal basis for the exploration and peaceful uses of outer space was established by international agreements negotiated primarily by COPUOS and its Legal Sub-Committee. It consists of five treaties, four of which have already entered into force.

The first and fundamental instrument is the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, which was commended by the United Nations General Assembly in its resolution 2222 (XXI) of 19 December 1966, opened for signature on 27 January 1967 and entered into force on 10 October of the same year.<sup>5</sup> Up to now, this Treaty assembled 90 signatures and 82 ratifications, accessions or notifications of succession.<sup>6</sup>

According to the leading principle of the 1967 Space Treaty "the exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind." This principle, together with other principles inserted in the first three Articles of the Treaty, are not only the basic provisions of this legal document; they have also created the basis for the whole international space law of our times.

From the language of these provisions the following legal elements can be derived:

(a) recognition of the common interest of all mankind in the progress of the exploration and use of outer space, including the moon and other celestial bodies for peaceful purposes;

(b) promise that the exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development;

(c) declaration of outer space, including the moon and other celestial bodies, as a common area of all nations with a special international law status;

(d) declaration of the freedom in the exploration and uses of outer space, including the moon and other celestial bodies, and equal position of all States in such activities;

(e) declaration of the freedom of scientific investigation in outer space, including the moon and other celestial bodies, and promotion of international cooperation in such investigation;

(f) stipulation of free access to all areas of the moon and other celestial bodies;

(g) renunciation on national appropriation of outer space, including the moon and other celestial bodies, by any means;

(h) confirmation of applicability of international law, including the Charter of the United Nations with respect to space activities;

(i) stipulation of securing the maintenance of international peace and security, and promotion of international cooperation and understanding in the exercise of space activities.

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<sup>5</sup>Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (hereinafter "1967 Space Treaty"), Jan. 27, 1967, [1967] 18 U.S.T. 2410, T.I.A.S. 6347, 610 U.N.T.S. 205 (effective Oct. 10, 1967); *see also* Resolutions adopted by the General Assembly during its twenty-first session, 20 September-20 December 1966, GAOR: Twenty-first session, Supplement No. 16 (A/6316), at 13 *ff*.

<sup>6</sup>For these and other data relating to the signatures, ratifications and accessions to individual space legal instruments referred to in the text, see the document Present Status of Outer Space Treaties, March 1984, distributed at the twenty-third session of the Legal Sub-Committee of COPUOS held in Geneva, 1984.

At this juncture, one difference between the régime of outer space in its narrower sense and that of the moon and other celestial bodies should be observed. The principle of free access in Art. I relates explicitly to "all areas of celestial bodies", while neither the fundamental principles nor any other part of the Treaty deals with the problem of free access to outer space in general. Although outer space has been declared free for exploration and use by all States, such freedom does not automatically include the right of free access to outer space without regard to the sovereignty of States over the respective parts of airspace adjacent to their territories. Nor did the 1967 Space Treaty stipulate any general right of passage of space objects of one State or a group thereof through the territorial space of other States.

In Art. IV of the 1967 Space Treaty, the first legal basis for demilitarization of outer space was laid down, though only some specific limitations of military activities in the space environment were agreed upon at that time. States Parties to the Treaty have undertaken "not to place in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner." In the second paragraph of the same article, more far-reaching limitations of military activities have been enshrined; however, they have concerned only the moon and other celestial bodies and not outer space itself. According to this provision "the moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes" and this general clause was accompanied by a number of specific prohibitions of different kinds of military activities.<sup>7</sup>

Several principles of the 1967 Space Treaty have been dedicated to furthering international cooperation and mutual assistance. A mechanism of international consultations has been provided, in order to ensure due regard to interests of all parties to the Treaty. An agreement on informing, "to the greatest extent feasible and practicable", of the nature, conduct, locations and results of activities in the peaceful exploration and use of outer space was reached in Art. XI, such information to be submitted to the United Nations Secretary-General as well as the public and the international scientific community.

In Art. V of the Space Treaty, basic principles concerning assistance to be rendered to astronauts in the event of accident, distress, or emergency landing on the territory of another State or on the high seas have been included. Furthermore, principles establishing two types of responsibility have been laid down. In Art. VI, international responsibility of States for national activities in outer space to be carried out in conformity with the provisions of the Space Treaty has been provided. This kind of responsibility belongs to the category of responsibility of States for wrongful acts violating norms of international law. The second type of responsibility, international liability for damage caused to another State or its nationals by launching an object into outer space, provided in Art. VII of the Space Treaty, belongs to the special category of international responsibility for activities that due to their hazardous nature may cause damage to be compensated if it really occurs, though such activities do not technically violate any norm of international law.

Finally, the principle of retaining jurisdiction of a State "on whose registry an object launched into outer space is carried" and control over such object, and over any personnel thereof, while in outer space or on a celestial body has been declared in Art. VIII. By analogy with air and maritime law, this principle has provided a basis for registration

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<sup>7</sup>The writer of this paper dealt with the existing state of demilitarization of outer space in greater detail in his article *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies*, published in *Yearbook of Air and Space Law - Annuaire de droit aérien et spatial*, Vol. 1966, McGill University Press, Montreal, p. 471 ff.

of space objects and established a link between the registration and the exercise of jurisdiction of the State of registry over the respective object.

The principles inserted in Articles V - VIII became starting points for further steps in space legislation which led to the conclusion of three additional treaties dealing with specific subjects. They were as follows:

1. Agreement on the Rescue of Astronauts, the Return of Astronauts, and the Return of Objects Launched into Outer Space. This treaty was commended by the United Nations General Assembly in its resolution 2345 (XXII) of 19 December 1967 and opened for signature on 22 April 1968; it entered into force on 3 December 1968.<sup>8</sup> By March 1984, it had been signed by 79 States, while 76 States ratified it, acceded to it or notified their succession; one declaration of acceptance was also made by an international organization (ESA):

2. Convention on International Liability for Damage Caused by Space Objects, which was commended by the United Nations General Assembly in its resolution 2777 (XXVI) of 29 November 1971 and opened for signature on 29 March 1972; it entered into force on 1 September 1972.<sup>9</sup> So far, this instrument has been signed by 72 States and ratified, acceded to or notified of succession by 63 States, also with one declaration of acceptance made by an international organization (ESA).

3. Convention on Registration of Objects Launched into Outer Space, which was commended by the United Nations General Assembly in its resolution 3235 (XXIX) of 12 November 1974, opened for signature on 14 January 1975 and entered into force on 15 September 1976.<sup>10</sup> However, a relatively lower number of signatures (27) and ratifications, accessions or notifications of succession (32), also with one declaration of acceptance (ESA), have already signalized a certain slowdown in the growth of space law.

This has become still more outstanding in the case of the fifth space law instrument that was finished after eight years of negotiations in 1979. It is the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies which was commended by the United Nations General Assembly in its resolution 34/68 of 5 December 1979 and opened for signature on 18 December 1979.<sup>11</sup> This instrument has assembled so far but 11 signatures and 4 ratifications. Since at least five ratifications are requested for its entry into force, the Moon Agreement has not yet become a valid international treaty, though it is now fairly close to acquiring such a status. This Agreement too is a remarkable legal document in which the principles of the 1967 Space Treaty relating to the moon and other celestial bodies have been further developed.

Moreover, the Moon Agreement includes some new elements, particularly a principle declaring the moon and its natural resources as "the common heritage of mankind."

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<sup>8</sup>Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched Into Outer Space, April 22, 1968, [1969] 19 U.S.T. 7570, T.I.A.S. 6599, 672 U.N.T.S. 119 (effective Dec. 3, 1968); *see also* Resolutions adopted by the General Assembly during its twenty-second session, Vol. I, 19 September-19 December 1968, GAOR: Twenty-second session, Supplement No. 16 (A/6716), at 6 *ff*.

<sup>9</sup>Convention on International Liability for Damage Caused by Space Objects, Mar. 29, 1972 [1973] 24 U.S.T. 2389, T.I.A.S. 7762 (effective Oct. 9, 1973); *see also* Resolutions adopted by the General Assembly during its twenty-sixth session, 21 September-22 December 1971, GAOR: Twenty-sixth session, Supplement No. 29 (A/8429), at 25 *ff*.

<sup>10</sup>Convention on Registration of Objects Launched Into Outer Space, Jan. 14, 1975, [1976] T.I.A.S. 8480 (effective Sept. 15, 1976); *see also* Resolutions adopted by the General Assembly during its twenty-ninth session, Vol. I, 17 September-18 December 1974, GAOR: Twenty-ninth session, Supplement No. 31 (A/9631), at 16 *ff*.

<sup>11</sup>Agreement Governing the Activities of States on the Moon and Other Celestial Bodies; *see* Resolutions and Decisions adopted by the General Assembly during its thirty-fourth session, 18 September 1979 - 7 January 1980, GAOR: Thirty-fourth session, Supplement No. 46 A/34/46, at 77 *ff*.

According to Art. 11, States shall have the right of exploration and use of the moon without discrimination of any kind, on the basis of equality and in accordance with international law and the provisions of the Agreement. As to the exploitation of the natural resources of the moon, however, States Parties to the Agreement will "undertake to establish an international régime, including appropriate procedures, to govern the exploitation of the natural resources of the moon as such exploitation is about to become feasible." This principle shall be implemented by a review conference that will have to be convened, according to Art. 18, by the United Nations Secretary-General at the request of one third of the States Parties to the Agreement any time after the Agreement will have been in force for five years.

Though specific in its juridical meaning and having to be applied under the precise scope of provisions of the Moon Agreement, the principle of common heritage of mankind reflects similar ideas that were developed at the Third United Nations Conference on the Law of the Sea with regard to the legal régime of, and an international machinery for, the area of the sea-bed beyond the limits of national jurisdiction. And the future implementation of the common heritage principle of the Moon Agreement may face similar difficulties as were those concerning establishment of the system of exploration and exploitation of the sea-bed resources at the Sea-Law Conference.

The prospective value of the 1979 Moon Agreement is furthermore evident from its Art. 1 which states that the provisions of this Agreement relating to the moon shall also apply to other celestial bodies within the solar system, other than the earth, except insofar as specific legal norms enter into force with respect to any of these celestial bodies. Thus, the Moon Agreement has become not only instrumental in establishing the legal status for the Earth's only natural satellite, but it also contributes to building up the principles of interplanetary law that should specifically govern our solar system within the general framework of space law.

Due to the fact that the total number of contracting parties of all space law treaties, particularly of the two latter instruments, remains limited, the United Nations General Assembly recalled on several occasions its concern about further development of the rule of law in the exploration and use of outer space. In resolution 38/80 adopted on 15 December 1983, this principal organ of the United Nations, in which all Member States are represented, once again invited States that have not yet become parties to the international treaties governing the use of outer space to give consideration to ratifying or acceding to those treaties. Without any doubt, an increase of the number of States adhering to all space law instruments would not only enlarge the effect of the up-to-date space legislation, but it would also stimulate the law-making process which has now been passing a rather difficult period.

#### *Areas of agreement and disagreement in elaboration of further principles*

For almost a decade the topic of legal regulation of direct television broadcasting was on the agenda of COPUOS. Initiated by the Soviet Union, which submitted in 1973 a proposal of a Convention on Principles Governing the Use by States of Artificial Earth Satellites for Direct Television Broadcasting,<sup>12</sup> this item was under discussion of a Working Group established by the Legal Sub-Committee, which agreed on drafting of most of the principles involved. Still, some important issues, especially those relating to the principle of "State responsibility" and "Consultation and agreements between States",

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<sup>12</sup>See UN Doc. A/AC.105/C.2/L.89, 19 April 1973, published in the Report of the Legal Sub-Committee on the work of its twelfth session (26 March-20 April 1973), UN Doc. A/AC.105/115, Annex III, at 1 ff.

remained unsettled, largely due to divergent philosophies underlying the positions of different groups of States. This disagreement reflected the gap between the views of those emphasizing the need for ensuring the free flow of ideas and information, and those requiring the respect for sovereign rights and an adequate protection of cultural identity of all nations. In specific terms of the principle of "Consultation and agreements" this contradiction was reflected in a dilemma, whether such an agreement would be necessary only to the extent required by the relevant technical regulations of the ITU, or broader agreements and/or arrangements between the States concerned should be required prior to the establishment of any direct television broadcasting.

In its resolution 36/35 of 3 December 1981 the General Assembly decided that further attempts to complete the elaboration of this draft set of principles should be made by COPUOS itself during its session in 1982 and that the adoption of such a set of principles would be considered at its thirty-seventh session. Finally, when several attempts to reach a compromise had failed, the United Nations General Assembly adopted resolution 37/92 of 10 December 1982 including in its Annex Principles governing the use by States of artificial earth satellites for international direct television broadcasting. The draft of this resolution was sponsored by a group of developing countries and the resolution was endorsed by a large majority of Member States.<sup>13</sup> However, for the first time in the history of space law in the United Nations, this document was not adopted by consensus.

For several years, another item of similar magnitude has been under consideration in COPUOS and its Legal Sub-Committee, that concerning legal implications of remote sensing of the earth from space, with the aim of formulating draft principles. The Legal Sub-Committee started consideration of this subject already in 1972. Three years later, a Working Group was established and began to formulate the set of principles. Since that time a substantial progress has been reached and a number of principles have been drafted without major difficulties.

However, differences in some significant problems still persist. In 1983 a certain step forward seemed to be made when the Legal Sub-Committee considered a new text of principle XIII dealing with notification of the remote sensing programme.<sup>14</sup> On the other hand, different positions have been maintained with regard to the dissemination of data or information on the natural resources of sensed States to third parties. As expressed at different stages of the discussion, some delegations, particularly the Western, industrially-advanced countries, feel that there should be no restrictions on the dissemination of data obtained from remote sensing of the earth or analyzed information derived therefrom, since a system of unrestricted dissemination would be in the best interest of all States and that prohibitions on dissemination would be impractical. Other delegations, however, mostly representing developing nations, are of the view that making the dissemination of certain data and information subject to the approval of the State whose territory is affected by the remote sensing activities is necessary, since this is a corollary to the principle of the sovereignty of States. Still other delegations, particularly the Eastern European Socialist States, while accepting in principle the required approval of the sensed State,

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<sup>13</sup>Resolution 37/92 of 10 December 1982 was adopted by recorded vote of 107 votes in favour, 13 votes against and 13 abstentions; 23 Member States were absent during the vote but one of them later announced that it had intended to vote in favor. For its text see Resolutions and Decisions adopted by the General Assembly during its Thirty-seventh session, 21 September-21 December 1982, and 10-13 May 1983, GAOR: Thirty-seventh session, Supplement No. 51 (A/3751) at 98 ff.

<sup>14</sup>See Report of the Legal Sub-Committee on the work of its twenty-second session (21 March-8 April 1983), UN Doc. A/AC.105/320, 13 April 1983, Annex I, at 14-15, 21.

recommend the introduction of a certain spatial resolution as an objective criterion for the differentiation of data to be freely disseminated from data whose dissemination should be subject to consent.<sup>15</sup>

So far, no compromise solution for this complex issue could be found, though an attempt at approaching it from another stand-point was made.<sup>16</sup>

The present agenda of the Legal Sub-Committee also includes two other items, one of them involving an issue which has been known in the doctrine of space law for many years, the other of a recent origin.

The former is called "Matters relating to the definition and/or delimitation of outer space and other space activities, bearing in mind, *inter alia*, questions relating to the geostationary orbit." When approaching the problem of defining outer space and distinguishing it from air space, we should not forget that though relevant scientific and technical criteria have to be borne in mind, its substance remains primarily of a political and legal nature. For a delimitation between the scope of the principle of sovereignty of States, on which the legal régime of air space is based, and the scope of the freedom of outer space, which has been one of the fundamental principles of space law, is under consideration. This could be achieved by establishing a boundary between the two different spaces or at least by reaching an agreement on the lower limit of outer space.<sup>17</sup> In specific terms, attention was recently attached to a distance not exceeding 110 kilometres above sea level. It was also indicated that the drawing of such a boundary should be supplemented by the recognition of the right of passage for space objects of another State for the purpose of reaching orbit or returning to earth, provided such passage caused no adverse effect in the territory of the State whose air space was crossed.<sup>18</sup>

This position, however, is opposed by some States which maintain the view that the establishing of a boundary at a particular altitude would be arbitrary and premature. Another view prefers to approach this problem by defining the term of space activities, rather than that of outer space.<sup>19</sup>

In recent years the problem of definition and/or delimitation of outer space has been widened by additional aspects, particularly those concerning the legal status of the geostationary orbit. A group of equatorial countries claim that due to their special physical relationship with the geostationary orbit they are entitled to a special protection of their interests in relation to this "limited natural resource." Other States, however, reject any national claims to such orbit or any part thereof, emphasizing that the geostationary orbit is an inseparable part of outer space. While recognizing not only the need to ensure access to the geostationary orbit for all States on an equitable, but also on an efficient and

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<sup>15</sup>See Report of the Legal Sub-Committee on the work of its twentieth session (16 March-10 April 1981), UN Doc. A/AC.105/288, 20 April 1981, Annex I, at 4.

<sup>16</sup>See Working Paper of Brazil, Doc. WG/RS (1982)/WP.11 of 8 February 1982, Report of the Legal Sub-Committee on the work of its twenty-first session (1-19 February 1982) UN Doc. A/AC.105/305, 24 February 1982, Annex I, at 20.

<sup>17</sup>The writer explained his views on this subject in greater detail in his article *The Question of Defining Outer Space*, 8 *J. Space L.* 154 (1980).

<sup>18</sup>See Working Papers of USSR, Doc. A/AC.105/L.112, 20 June 1979 and Doc. A/AC.105/C.2/L.139, 4 April 1983. See also Report of the Legal Sub-Committee on the work of its twenty-second session, UN Doc. A/AC.105/320, 13 April 1983, para. 36 at 8.

<sup>19</sup>See Report of the Legal Sub-Committee on the work of its twenty-first session (1-19 February 1982), UN Doc. A/AC.105/305, 24 February 1982, at 7 *ff.* See also Report of the Legal Sub-Committee on the work of its twenty-second session, UN Doc. A/AC.105/320, 13 April 1983, paras. 37-39 at 8-9.

economical basis, these States are of the view that this orbit derives its special attributes from the planet Earth as a whole and that any regulation of its use should respect the principles of existing international space law, in particular the 1967 Space Treaty.<sup>20</sup>

A new development in this particular problem was recorded during the discussions in the Special Political Committee to which the item "International cooperation in the peaceful uses of outer space" was assigned at the thirty-eighth session of the General Assembly. Its outcome has been reflected in resolution 38/80 adopted by a majority vote on 15 December 1983. In paragraph 5 of this resolution, the General Assembly decided that the Legal Sub-Committee at its twenty-third session, to be held in 1984, should "establish a working group to consider, on a priority basis, matters relating to the definition and delimitation of outer space and to the character and utilization of the geostationary orbit, including the elaboration of general principles to govern the rational and equitable use of the geostationary orbit, a limited natural resource." To that end, Member States were requested to submit draft principles and the working group would have "to take account of different legal régimes governing airspace and outer space, respectively, and the need for technical planning and legal regulation of the geostationary orbit."<sup>21</sup>

Another new item, which is now under discussion of the Legal Sub-Committee, is entitled "Consideration of the possibility of supplementing the norms of international law relevant to the use of nuclear power sources in outer space." In this point a considerable gap exists between those who are convinced that the present provisions of outer space treaties need to be supplemented and those who believe that these provisions offer a sufficient basis for handling all situations arising from the use of nuclear power sources (NPS) in outer space.

It should be recalled in this connection that a Working Group established by COPUOS was considering the use of NPS in outer space during three sessions of the Scientific and Technical Sub-Committee. It reached the conclusion that NPS could be used safely in outer space, provided that all the necessary safety requirements were met. The same group formulated a number of recommendations, including those concerning the format of notification for re-entering space vehicles containing NPS which may give rise to radiological hazards.<sup>22</sup> These recommendations also served as a basis for the deliberations of the Legal Sub-Committee at its twenty-second session held in 1983. A certain progress reached in these deliberations has been reflected in the report of the Working Group of the Legal Sub-Committee dealing with this item.<sup>23</sup> This progress was welcomed both by COPUOS at its twenty-sixth session held in 1983<sup>24</sup> and the General Assembly which noted in its resolution 38/80 with satisfaction "the successful efforts of the Legal Sub-Committee of the Committee on the Peaceful Uses of Outer Space in

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<sup>20</sup>See UN Doc. A/AC.105/305, 24 February 1982, at 10 *ff.* and UN Doc. A/AC.105/320, 13 April 1983, at 9 *ff.*

<sup>21</sup>See Resolutions and Decisions adopted by the General Assembly during the first part of its thirty-eighth session. From 20 September to 20 December 1983, Press Release GA/6935, 13 January 1984, at 195 *ff.*

<sup>22</sup>See Report of the Scientific and Technical Sub-Committee on the work of its eighteenth session, UN Doc. A/AC.105/287, Annex II, particularly paras. 19 and 38 at 4-5, 9.

<sup>23</sup>See Draft report of the chairman of the working group on agenda item 5 in U.N. Doc. A/AC.105/320, 13 April 1983, Annex II, at 22-23.

<sup>24</sup>See Report of the Committee on the Peaceful Uses of Outer Space, GAOR: Thirty-Eighth Session, Supplement No. 20 (A/38/20), para. 71 at 12.

elaborating an agreed text concerning the format and the procedure for notification in case of malfunction of a spacecraft carrying a nuclear power source on board."<sup>25</sup>

In the same resolution the General Assembly endorsed the recommendation of COPUOS that, during the twenty-first session of the Scientific and Technical Subcommittee, the Working Group on NPS should be reconvened to conduct additional work on the basis of the report of the Working Group on the work of its third session.<sup>26</sup>

*Prevention of arms race as an essential condition for international cooperation in outer space*

At recent sessions of COPUOS, during the discussions of the thirty-sixth, thirty-seventh and thirty-eighth sessions of the General Assembly and also at the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space, delegations of several Member States expressed their deep concern relating to the growing dangers of the military use of outer space, stressing the need for the early consideration by the international community of measures to prevent an arms race in outer space. The introducing of weapons into this environment and establishing of new weapon systems might have a serious negative effect on the development of international cooperation for the exploration and peaceful uses of outer space. It was therefore proposed by some delegations to COPUOS to include in the agenda of the Committee a new item entitled "Ensuring the use of outer space exclusively for peaceful purposes." The discussions on it could lead to a further elaboration of the principle of non-militarization of outer space, the first basis of which was already enshrined in Art. IV of the 1967 Space Treaty.<sup>27</sup>

In the agenda of the thirty-sixth session of the General Assembly, an item called "Conclusion of a treaty on the prohibition of stationing of weapons of any kind in outer space" was also included. It was done so upon the initiative of the Soviet Union which also provided the text of a draft treaty on this subject to be negotiated as a separate instrument in addition to the existing space agreements.<sup>28</sup>

In the discussions of the First Committee, to which this item was assigned together with other problems of disarmament, two main trends of opinions emerged. One of them supported the original idea, i.e. the prohibition of stationing in outer space of any kinds of weapons, even those which are not covered by the definition of weapons of mass destruction the placement of which in outer space had already been prohibited earlier. In this way, outer space should not become an arena for arms race or a source of aggravating relations between States.

The promoters of the other trend indicated that outer space could be involved in the arms race in different ways that are not yet prohibited by the existing agreements.

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<sup>25</sup>See Press Release GA/6935, 13 January 1984, para. 4 at 196.

<sup>26</sup>*Id.*, para. 8 at 197.

<sup>27</sup>See Report of the Committee on the Peaceful Uses of Outer Space, GAOR: Thirty-sixth session, Supplement No. 20 (A/36/20), para. 68 at 13.

<sup>28</sup>See UN Doc A/36/192, 20 August 1981, Annex.

For the time being, they qualified as the greatest danger the development, testing and deployment of an anti-satellite weapon system.<sup>29</sup>

At its thirty-seventh session the General Assembly succeeded in adopting a single resolution 37/83 of 9 December 1982, requesting the Geneva Committee on Disarmament to consider the question of preventing an arms race in outer space as a matter of priority.

However, in the course of its session in 1983 the Committee on Disarmament, though considering this subject both at its formal and informal meetings as well as through informal consultations, was not able to reach any substantial progress and did not even establish a working group on outer space due to disagreement on a mandate for it.

A new basis for the deliberations on this subject was created by the Draft Treaty on the Prohibition of the Use of Force in Outer Space and from Space against the Earth, submitted by the Soviet Union<sup>30</sup> and the discussion that followed the submission of this draft at the thirty-eighth session of the General Assembly. In its resolution 38/70 of 15 December 1983, the General Assembly, *inter alia*, emphasized that further effective measures to prevent an arms race in outer space should be adopted by the international community and reiterated that the Conference on Disarmament (as the Geneva Committee on Disarmament is to be known from the date of commencement of the annual session in 1984) had a primary role in the negotiation of an agreement or agreements on the prevention of an arms race in all its aspects in outer space.<sup>31</sup>

Furthermore, in its resolution 38/80 adopted on the same day with regard to International Cooperation in the Peaceful Uses of Outer Space, the United Nations General Assembly called upon all States, in particular those with major space capabilities, "to undertake prompt negotiations under the auspices of the United Nations with a view to reaching agreement or agreements designed to halt the militarization of outer space and to prevent an arms race in outer space, thus contributing to the achievement of the internationally accepted goal of ensuring the use of outer space exclusively for peaceful purposes." At the same time, the General Assembly requested COPUOS to consider, as a matter of priority, the questions relating to the militarization of outer space, taking into account the need to coordinate the efforts of COPUOS and the above-mentioned Conference on Disarmament.<sup>32</sup>

In this connection it should be also recalled that at the first special session of the General Assembly devoted to disarmament, which was held in 1978, the delegation of France proposed the establishment of an international satellite monitoring agency (ISMA) by means of which the use of observation satellites within the framework of disarmament would be placed at the service of the international community.<sup>33</sup> In paragraph 125(d) of the Final Document from this special session, the General Assembly requested the

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<sup>29</sup>As to greater details on this subject see the paper of the writer on "Article IV of the 1967 Space Treaty. Its Present Meaning and Possibilities of Further Development", published in Proceedings of the twenty-fifth Colloquium on the Law of Outer Space, 27 September-2 October 1982, Paris, France, at 119 ff.

<sup>30</sup>See UN Doc. A/38/194, 23 August 1983.

<sup>31</sup>See Press Release GA/6935, 13 January 1984, paras. 2 and 4 at 105 and 106.

<sup>32</sup>*Id.*, paras. 14 and 15 at 197.

<sup>33</sup>See the note verbale of France, Doc. A/S-10/AC.1/7, to which a memorandum dealing with the subject was attached.

Secretary-General to undertake, with the assistance of qualified governmental experts, a study on the technical, legal and financial implications of establishing an ISMA.<sup>34</sup>

In the study, which resulted from intensive efforts of the said group of experts and was published on 6 August 1981,<sup>35</sup> the valuable contribution which monitoring by satellites could make to the verification of compliance with certain arms control and disarmament agreements was generally recognized. Moreover, the positive role that satellite monitoring could play in preventing or settling international crises and thus contribute to confidence building among nations was emphasized.<sup>36</sup> It was also made abundantly clear that from the legal point of view, there was no provision in international law, including space law, that would entail a prohibition for an international governmental organization such as ISMA to carry out monitoring activities by satellites.<sup>37</sup>

A major contribution to further development of international space cooperation was made by the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82) held in Vienna, 1982, fourteen years after the first conference of this kind. The Second Conference focused on matters of a global nature and the utilization of space technology with respect to all participating countries. Furthermore, the Conference made an impetus towards an orderly growth of space activities favourable to socio-economic advancement of mankind and, in particular, of the peoples of the developing countries through creation and reinforcement of their national capacities. The Conference adopted by consensus a comprehensive report to the General Assembly on its work,<sup>38</sup> which included its recommendations pertaining to international cooperation in the exploration and peaceful uses of outer space. The General Assembly endorsed these recommendations in its resolution 37/90 adopted also by consensus on 10 December 1982 and in resolution 38/80 adopted on 15 December 1983, the General Assembly emphasized the urgency and importance to implement fully the recommendations of UNISPACE 82 as early as possible.

Though not discussing legal problems of outer space in great detail, the Conference stimulated further elaboration of the principles of international cooperation in space activities and enhanced the coordinating role of the United Nations in this field. According to a generally shared view of the participants in the Conference, as expressed in its report, "the maintenance of peace and security in outer space is of great importance for international peace and security. The prevention of an arms race and hostilities in outer space is an essential condition for the promotion and continuation of international cooperation in the exploration and use of outer space for peaceful purposes."<sup>39\*</sup>

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<sup>34</sup>See Final Document of the Tenth Special Session of the General Assembly, UN Doc. S-10/2, para. 125(d).

<sup>35</sup>See Study on the implications of establishing an international satellite monitoring agency. Report of the Secretary-General, UN Doc. A/AC.206/14, 6 August 1981.

<sup>36</sup>*Id.*, para. 16 at 14.

<sup>37</sup>*Id.*, para. 18 at 14.

<sup>38</sup>See Report of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space, Vienna, 9-21 August 1982, UN Doc. A/CONF.101/10, 31 August 1982, and Corr. 1 and 2.

<sup>39</sup>*Id.*, para. 14 at 5.

\**Editor's note:* After this article went to press, the author requested inclusion of the following statement: "During the twenty-seventh session of COPUOS held in Vienna in June 1984 the delegation of Austria advised the Committee that Austria had deposited her instrument of ratification of the 1979 Moon Agreement which would thus enter into force 30 days later."