

*Part two*  
Principles adopted by the General Assembly

**A.** Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space<sup>7</sup>

*The General Assembly,*

*Inspired by the great prospects opening up before mankind as a result of man's entry into outer space,*

*Recognizing the common interest of all mankind in the progress of the exploration and use of outer space for peaceful purposes,*

*Believing that the exploration and use of outer space should be carried on for the betterment of mankind and for the benefit of States irrespective of their degree of economic or scientific development,*

*Desiring to contribute to broad international cooperation in the scientific as well as in the legal aspects of exploration and use of outer space for peaceful purposes,*

*Believing that such cooperation will contribute to the development of mutual understanding and to the strengthening of friendly relations between nations and peoples,*

*Recalling its resolution 110 (II) of 3 November 1947, which condemned propaganda designed or likely to provoke or encourage any threat to the peace, breach of the peace, or act of aggression, and considering that the afore-mentioned resolution is applicable to outer space,*

*Taking into consideration its resolutions 1721 (XVI) of 20 December 1961 and 1802 (XVII) of 14 December 1962, adopted unanimously by the States Members of the United Nations,*

*Solemnly declares that in the exploration and use of outer space States should be guided by the following principles:*

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<sup>7</sup>Adopted by the General Assembly in its resolution 1962 (XVIII) of 13 December 1963.

1. The exploration and use of outer space shall be carried on for the benefit and in the interests of all mankind.
2. Outer space and celestial bodies are free for exploration and use by all States on a basis of equality and in accordance with international law.
3. Outer space and celestial bodies are not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.
4. The activities of States in the exploration and use of outer space shall be carried on in accordance with international law, including the Charter of the United Nations, in the interest of maintaining international peace and security and promoting international cooperation and understanding.
5. States bear international responsibility for national activities in outer space, whether carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried on in conformity with the principles set forth in the present Declaration. The activities of non-governmental entities in outer space shall require authorization and continuing supervision by the State concerned. When activities are carried on in outer space by an international organization, responsibility for compliance with the principles set forth in this Declaration shall be borne by the international organization and by the States participating in it.
6. In the exploration and use of outer space, States shall be guided by the principle of cooperation and mutual assistance and shall conduct all their activities in outer space with due regard for the corresponding interests of other States. If a State has reason to believe that an outer space activity or experiment planned by it or its nationals would cause potentially harmful interference with activities of other States in the peaceful exploration and use of outer space, it shall undertake appropriate international consultations before proceeding with any such activity or experiment. A State which has reason to believe that an outer space activity or experiment planned by another State would cause potentially harmful interference with activities in the peaceful exploration and use of outer space may request consultation concerning the activity or experiment.
7. The State on whose registry an object launched into outer space is carried shall retain jurisdiction and control over such object, and any personnel thereon, while in outer space. Ownership of objects launched into outer space, and of their component parts, is not affected by their passage through outer space or by their return to the Earth. Such objects or component parts found beyond the limits of the State of registry shall be returned to that State, which shall furnish identifying data upon request prior to return.
8. Each State which launches or procures the launching of an object into outer space, and each State from whose territory or facility an object is launched, is internationally liable for damage to a foreign State or to its natural or juridical persons by such object or its component parts on the Earth, in air space, or in outer space.
9. States shall regard astronauts as envoys of mankind in outer space, and shall render to them all possible assistance in the event of accident, distress, or emergency landing on the territory of a foreign State or on the high seas. Astronauts who make such a landing shall be safely and promptly returned to the State of registry of their space vehicle.

## B. Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting<sup>8</sup>

*The General Assembly,*

*Recalling* its resolution 2916 (XXVII) of 9 November 1972, in which it stressed the necessity of elaborating principles governing the use by States of artificial Earth satellites for international direct television broadcasting, and mindful of the importance of concluding an international agreement or agreements,

*Recalling further* its resolutions 3182 (XXVIII) of 18 December 1973, 3234 (XXIX) of 12 November 1974, 3388 (XXX) of 18 November 1975, 31/8 of 8 November 1976, 32/196 of 20 December 1977, 33/16 of 10 November 1978, 34/66 of 5 December 1979 and 35/14 of 3 November 1980, and its resolution 36/35 of 18 November 1981 in which it decided to consider at its thirty-seventh session the adoption of a draft set of principles governing the use by States of artificial Earth satellites for international direct television broadcasting,

*Noting with appreciation* the efforts made in the Committee on the Peaceful Uses of Outer Space and its Legal Subcommittee to comply with the directives issued in the above mentioned resolutions,

*Considering* that several experiments of direct broadcasting by satellite have been carried out and that a number of direct broadcasting satellite systems are operational in some countries and may be commercialized in the very near future,

*Taking into consideration* that the operation of international direct broadcasting satellites will have significant international political, economic, social and cultural implications,

*Believing* that the establishment of principles for international direct television broadcasting will contribute to the strengthening of international cooperation in this field and further the purposes and principles of the Charter of the United Nations,

*Adopts* the Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting set forth in the annex to the present resolution.

### Annex. Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting

#### A. *Purposes and objectives*

1. Activities in the field of international direct television broadcasting by satellite should be carried out in a manner compatible with the sovereign rights of States, including the principle of non-intervention, as well as with the right of everyone to seek, receive and impart information and ideas as enshrined in the relevant United Nations instruments.
2. Such activities should promote the free dissemination and mutual exchange of information and knowledge in cultural and scientific fields, assist in educational, social and economic development, particularly in the developing countries, enhance the qualities of life of all peoples and provide recreation with due respect to the political and cultural integrity of States.
3. These activities should accordingly be carried out in a manner compatible with the development of mutual understanding and the strengthening of friendly relations and cooperation among all States and peoples in the interest of maintaining international peace and security.

*B. Applicability of international law*

1. Activities in the field of international direct television broadcasting by satellite should be conducted in accordance with international law, including the Charter of the United Nations, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies,<sup>1</sup> of 27 January 1967, the relevant provisions of the International Telecommunication Convention and its Radio Regulations and of international instruments relating to friendly relations and cooperation among States and to human rights.

*C. Rights and benefits*

Every State has an equal right to conduct activities in the field of international direct television broadcasting by satellite and to authorize such activities by persons and entities under its jurisdiction. All States and peoples are entitled to and should enjoy the benefits from such activities. Access to the technology in this field should be available to all States without discrimination on terms mutually agreed by all concerned.

*D. International cooperation*

2. Activities in the field of international direct television broadcasting by satellite should be based upon and encourage international cooperation. Such cooperation should be the subject of appropriate arrangements. Special consideration should be given to the needs of the developing countries in the use of international direct television broadcasting by satellite for the purpose of accelerating their national development.

*E. Peaceful settlement of disputes*

3. Any international dispute that may arise from activities covered by these principles should be settled through established procedures for the peaceful settlement of disputes agreed upon by the parties to the dispute in accordance with the provisions of the Charter of the United Nations.

*F. State responsibility*

4. States should bear international responsibility for activities in the field of international direct television broadcasting by satellite carried out by them or under their jurisdiction and for the conformity of any such activities with the principles set forth in this document.

5. When international direct television broadcasting by satellite is carried out by an international intergovernmental organization, the responsibility referred to in paragraph 8 above should be borne both by that organization and by the States participating in it.

*G. Duty and right to consult*

6. Any broadcasting or receiving State within an international direct television broadcasting satellite service established between them requested to do so by any other broadcasting or receiving State within the same service should promptly enter into consultations with the requesting State regarding its activities in the field of international direct television broadcasting by satellite, without prejudice to other consultations which these States may undertake with any other State on that subject.

#### *H. Copyright and neighbouring rights*

7. Without prejudice to the relevant provisions of international law, States should cooperate on a bilateral and multilateral basis for protection of copyright and neighbouring rights by means of appropriate agreements between the interested States or the competent legal entities acting under their jurisdiction. In such cooperation they should give special consideration to the interests of developing countries in the use of direct television broadcasting for the purpose of accelerating their national development.

#### *I. Notification to the United Nations*

8. In order to promote international cooperation in the peaceful exploration and use of outer space, States conducting or authorizing activities in the field of international direct television broadcasting by satellite should inform the Secretary-General of the United Nations, to the greatest extent possible, of the nature of such activities. On receiving this information, the Secretary-General should disseminate it immediately and effectively to the relevant specialized agencies, as well as to the public and the international scientific community.

#### *J. Consultations and agreements between States*

9. A State which intends to establish or authorize the establishment of an international direct television broadcasting satellite service shall without delay notify the proposed receiving State or States of such intention and shall promptly enter into consultation with any of those States which so requests.

10. An international direct television broadcasting satellite service shall only be established after the conditions set forth in paragraph 13 above have been met and on the basis of agreements and/or arrangements in conformity with the relevant instruments of the International Telecommunication Union and in accordance with these principles.

11. With respect to the unavoidable overspill of the radiation of the satellite signal, the relevant instruments of the International Telecommunication Union shall be exclusively applicable.

### **C. Principles Relating to Remote Sensing of the Earth from Outer Space<sup>9</sup>**

*The General Assembly,*

Recalling its resolution 3234 (XXIX) of 12 November 1974, in which it recommended that the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space should consider the question of the legal implications of remote sensing of the Earth from space, as well as its resolutions 3388 (XXX) of 18 November 1975, 31/8 of 8 November 1976, 32/196 A of 20 December

1977, 33/16 of 10 November 1978, 34/66 of 5 December 1979, 35/14 of 3 November 1980, 36/35 of 18 November 1981, 37/89 of 10 December 1982, 38/80 of 15 December 1983, 39/96 of 14 December 1984 and 40/162 of 16 December 1985, in which it called for a detailed consideration of the legal implications of remote sensing of the Earth from space, with the aim of formulating draft principles relating to remote sensing,

*Having considered* the report of the Committee on the Peaceful Uses of Outer Space on the work of its twenty-ninth session<sup>10</sup> and the text of the draft principles relating to remote sensing of the Earth from space, annexed thereto,

*Noting with satisfaction* that the Committee on the Peaceful Uses of Outer Space, on the basis of the deliberations of its Legal Subcommittee, has endorsed the text of the draft principles relating to remote sensing of the Earth from space,

*Believing* that the adoption of the principles relating to remote sensing of the Earth from space will contribute to the strengthening of international cooperation in this field,

*Adopts* the principles relating to remote sensing of the Earth from space set forth in the annex to the present resolution.

## Annex. Principles Relating to Remote Sensing of the Earth from Outer Space

### *Principle I*

For the purposes of these principles with respect to remote sensing activities:

(a) The term “remote sensing” means the sensing of the Earth’s surface from space by making use of the properties of electromagnetic waves emitted, reflected or diffracted by the sensed objects, for the purpose of improving natural resources management, land use and the protection of the environment;

(b) The term “primary data” means those raw data that are acquired by remote sensors borne by a space object and that are transmitted or delivered to the ground from space by telemetry in the form of electromagnetic signals, by photographic film, magnetic tape or any other means;

(c) The term “processed data” means the products resulting from the processing of the primary data, needed to make such data usable;

(d) The term “analysed information” means the information resulting from the interpretation of processed data, inputs of data and knowledge from other sources;

(e) The term “remote sensing activities” means the operation of remote sensing space systems, primary data collection and storage stations, and activities in processing, interpreting and disseminating the processed data.

### *Principle II*

Remote sensing activities shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic, social or scientific and technological development, and taking into particular consideration the needs of the developing countries.

### *Principle III*

Remote sensing activities shall be conducted in accordance with international law, including the Charter of the United Nations, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies,<sup>1</sup> and the relevant instruments of the International Telecommunication Union.

#### *Principle IV*

Remote sensing activities shall be conducted in accordance with the principles contained in article I of 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, in particular, provides that the exploration and use of outer space shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and stipulates the principle of freedom of exploration and use of outer space on the basis of equality. These activities shall be conducted on the basis of respect for the principle of full and permanent sovereignty of all States and peoples over their own wealth and natural resources, with due regard to the rights and interests, in accordance with international law, of other States and entities under their jurisdiction. Such activities shall not be conducted in a manner detrimental to the legitimate rights and interests of the sensed State.

#### *Principle V*

States carrying out remote sensing activities shall promote international cooperation in these activities. To this end, they shall make available to other States opportunities for participation therein. Such participation shall be based in each case on equitable and mutually acceptable terms.

#### *Principle VI*

In order to maximize the availability of benefits from remote sensing activities, States are encouraged, through agreements or other arrangements, to provide for the establishment and operation of data collecting and storage stations and processing and interpretation facilities, in particular within the framework of regional agreements or arrangements wherever feasible.

#### *Principle VII*

States participating in remote sensing activities shall make available technical assistance to other interested States on mutually agreed terms.

#### *Principle VIII*

The United Nations and the relevant agencies within the United Nations system shall promote international cooperation, including technical assistance and coordination in the area of remote sensing.

#### *Principle IX*

In accordance with article IV of the Convention on Registration of Objects Launched into Outer Space<sup>4</sup> and article XI of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, a State carrying out a programme of remote sensing shall inform the Secretary-General of the United Nations. It shall, moreover, make available any other relevant information to the greatest extent feasible and practicable to any other State, particularly any developing country that is affected by the programme, at its request.

#### *Principle X*

Remote sensing shall promote the protection of the Earth's natural environment.

To this end, States participating in remote sensing activities that have identified information in their possession that is capable of averting any phenomenon harmful to the Earth's natural environment shall disclose such information to States concerned.

#### *Principle XI*

Remote sensing shall promote the protection of mankind from natural disasters.

To this end, States participating in remote sensing activities that have identified processed data and analysed information in their possession that may be useful to States affected by natural disasters, or likely to be affected by impending natural disasters, shall transmit such data and information to States concerned as promptly as possible.

#### *Principle XII*

As soon as the primary data and the processed data concerning the territory under its jurisdiction are produced, the sensed State shall have access to them on a non-discriminatory basis and on reasonable cost terms. The sensed State shall also have access to the available analysed information concerning the territory under its jurisdiction in the possession of any State participating in remote sensing activities on the same basis and terms, taking particularly into account the needs and interests of the developing countries.

#### *Principle XIII*

To promote and intensify international cooperation, especially with regard to the needs of developing countries, a State carrying out remote sensing of the Earth from space shall, upon request, enter into consultations with a State whose territory is sensed in order to make available opportunities for participation and enhance the mutual benefits to be derived therefrom.

#### *Principle XIV*

In compliance with article VI of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, States operating remote sensing satellites shall bear international responsibility for their activities and assure that such activities are conducted in accordance with these principles and the norms of international law, irrespective of whether such activities are carried out by governmental or non-governmental entities or through international organizations to which such States are parties. This principle is without prejudice to the applicability of the norms of international law on State responsibility for remote sensing activities.

#### *Principle XV*

Any dispute resulting from the application of these principles shall be resolved through the established procedures for the peaceful settlement of disputes.



## D. Principles Relevant to the Use of Nuclear Power Sources in Outer Space<sup>11</sup>

*The General Assembly,*

*Having considered* the report of the Committee on the Peaceful Uses of Outer Space on the work of its thirty-fifth session<sup>12</sup> and the text of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space as approved by the Committee and annexed to its report,<sup>13</sup>

*Recognizing* that for some missions in outer space nuclear power sources are particularly suited or even essential owing to their compactness, long life and other attributes,

*Recognizing also* that the use of nuclear power sources in outer space should focus on those applications which take advantage of the particular properties of nuclear power sources,

*Recognizing further* that the use of nuclear power sources in outer space should be based on a thorough safety assessment, including probabilistic risk analysis, with particular emphasis on reducing the risk of accidental exposure of the public to harmful radiation or radioactive material,

*Recognizing* the need, in this respect, for a set of principles containing goals and guidelines to ensure the safe use of nuclear power sources in outer space,

*Affirming* that this set of Principles applies to nuclear power sources in outer space devoted to the generation of electric power on board space objects for nonpropulsive purposes, which have characteristics generally comparable to those of systems used and missions performed at the time of the adoption of the Principles,

*Recognizing* that this set of Principles will require future revision in view of emerging nuclear power applications and of evolving international recommendations on radiological protection,

*Adopts* the Principles Relevant to the Use of Nuclear Power Sources in Outer Space as set forth below.

### Principle 1. Applicability of international law

Activities involving the use of nuclear power sources in outer space shall be carried out in accordance with international law, including in particular the Charter of the United Nations and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.<sup>1</sup>

### Principle 2. Use of terms

1. For the purpose of these Principles, the terms “launching State” and “State launching” mean the State which exercises jurisdiction and control over a space object with nuclear power sources on board at a given point in time relevant to the principle concerned.
2. For the purpose of principle 9, the definition of the term “launching State” as contained in that principle is applicable.
3. For the purposes of principle 3, the terms “foreseeable” and “all possible” describe a class of events or circumstances whose overall probability of occurrence is such that it is considered to encompass only credible possibilities for purposes of safety analysis. The term “general concept of defence-in-depth” when applied to nuclear power sources in outer space refers to the

use of design features and mission operations in place of or in addition to active systems, to prevent or mitigate the consequences of system malfunctions. Redundant safety systems are not necessarily required for each individual component to achieve this purpose. Given the special requirements of space use and of varied missions, no particular set of systems or features can be specified as essential to achieve this objective. For the purposes of paragraph 2 (d) of principle 3, the term “made critical” does not include actions such as zero-power testing which are fundamental to ensuring system safety.

### Principle 3. Guidelines and criteria for safe use

In order to minimize the quantity of radioactive material in space and the risks involved, the use of nuclear power sources in outer space shall be restricted to those space missions which cannot be operated by non-nuclear energy sources in a reasonable way.

#### 1. General goals for radiation protection and nuclear safety

(a) States launching space objects with nuclear power sources on board shall endeavour to protect individuals, populations and the biosphere against

radiological hazards. The design and use of space objects with nuclear power sources on board shall ensure, with a high degree of confidence, that the hazards, in foreseeable operational or accidental circumstances, are kept below acceptable levels as defined in paragraphs 1 (b) and (c).

Such design and use shall also ensure with high reliability that radioactive material does not cause a significant contamination of outer space;

(b) During the normal operation of space objects with nuclear power sources on board, including re-entry from the sufficiently high orbit as defined in paragraph 2 (b), the appropriate radiation protection objective for the public recommended by the International Commission on Radiological Protection shall be observed. During such normal operation there shall be no significant radiation exposure;

(c) To limit exposure in accidents, the design and construction of the nuclear power source systems shall take into account relevant and generally accepted international radiological protection guidelines.

Except in cases of low-probability accidents with potentially serious radiological consequences, the design for the nuclear power source systems shall, with a high degree of confidence, restrict radiation exposure to a limited geographical region and to individuals to the principal limit of 1 mSv in a year. It is permissible to use a subsidiary dose limit of 5 mSv in a year for some years, provided that the average annual effective dose equivalent over a lifetime does not exceed the principal limit of 1 mSv in a year.

The probability of accidents with potentially serious radiological consequences referred to above shall be kept extremely small by virtue of the design of the system.

Future modifications of the guidelines referred to in this paragraph shall be applied as soon as practicable;

(d) Systems important for safety shall be designed, constructed and operated in accordance with the general concept of defence-in-depth. Pursuant to this concept, foreseeable safety-related failures or malfunctions must be capable of being corrected or counteracted by an action or a procedure, possibly automatic.

The reliability of systems important for safety shall be ensured, inter alia, by redundancy, physical separation, functional isolation and adequate independence of their components.

Other measures shall also be taken to raise the level of safety.

## 2. *Nuclear reactors*

(a) Nuclear reactors may be operated:

- (i) On interplanetary missions;
- (ii) In sufficiently high orbits as defined in paragraph 2 (b);
- (iii) In low-Earth orbits if they are stored in sufficiently high orbits after the operational part of their mission.

(b) The sufficiently high orbit is one in which the orbital lifetime is long enough to allow for a sufficient decay of the fission products to approximately the activity of the actinides. The sufficiently high orbit must be such that the risks to existing and future outer space missions and of collision with other space objects are kept to a minimum. The necessity for the parts of a destroyed reactor also to attain the required decay time before re-entering the Earth's atmosphere shall be considered in determining the sufficiently high orbit altitude;

(c) Nuclear reactors shall use only highly enriched uranium 235 as fuel. The design shall take into account the radioactive decay of the fission and activation products;

(d) Nuclear reactors shall not be made critical before they have reached their operating orbit or interplanetary trajectory;

(e) The design and construction of the nuclear reactor shall ensure that it cannot become critical before reaching the operating orbit during all possible events, including rocket explosion, re-entry, impact on ground or water, submersion in water or water intruding into the core;

(f) In order to reduce significantly the possibility of failures in satellites with nuclear reactors on board during operations in an orbit with a lifetime less than in the sufficiently high orbit (including operations for transfer into the sufficiently high orbit), there shall be a highly reliable operational system to ensure an effective and controlled disposal of the reactor.

## 3. *Radioisotope generators*

(a) Radioisotope generators may be used for interplanetary missions and other missions leaving the gravity field of the Earth. They may also be used in Earth orbit if, after conclusion of the operational part of their mission, they are stored in a high orbit. In any case ultimate disposal is necessary;

(b) Radioisotope generators shall be protected by a containment system that is designed and constructed to withstand the heat and aerodynamic forces of re-entry in the upper atmosphere under foreseeable orbital conditions,

including highly elliptical or hyperbolic orbits where relevant. Upon impact, the containment system and the physical form of the isotope shall ensure that no radioactive material is scattered into the environment so that the impact area can be completely cleared of radioactivity by a recovery operation.

Principle 4. Safety assessment

1. A launching State as defined in principle 2, paragraph 1, at the time of launch shall, prior to the launch, through cooperative arrangements, where relevant, with those which have designed, constructed or manufactured the nuclear power sources, or will operate the space object, or from whose territory or facility such an object will be launched, ensure that a thorough and comprehensive safety assessment is conducted. This assessment shall cover as well all relevant phases of the mission and shall deal with all systems involved, including the means of launching, the space platform, the nuclear power source and its equipment and the means of control and communication between ground and space.
2. This assessment shall respect the guidelines and criteria for safe use contained in principle 3.
3. Pursuant to article XI of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, the results of this safety assessment, together with, to the extent feasible, an indication of the approximate intended timeframe of the launch, shall be made publicly available prior to each launch, and the Secretary-General of the United Nations shall be informed on how States may obtain such results of the safety assessment as soon as possible prior to each launch.

Principle 5. Notification of re-entry

1. Any State launching a space object with nuclear power sources on board shall in a timely fashion inform States concerned in the event this space object is malfunctioning with a risk of re-entry of radioactive materials to the Earth. The information shall be in accordance with the following format:

- (a) *System parameters:*
  - (i) Name of launching State or States, including the address of the authority which may be contacted for additional information or assistance in case of accident;
  - (ii) International designation;
  - (iii) Date and territory or location of launch;
  - (i) Information required for best prediction of orbit lifetime, trajectory and impact region;
  - (ii) General function of spacecraft;
- (b) *Information on the radiological risk of nuclear power source(s):*
  - (i) Type of nuclear power source: radio isotopic/reactor;
  - (ii) The probable physical form, amount and general radiological characteristics of the fuel and contaminated and/or activated components likely to reach the ground. The term “fuel” refers to the nuclear material used as the source of heat or power.

This information shall also be transmitted to the Secretary-General of the United Nations.

2. The information, in accordance with the format above, shall be provided by the launching State as soon as the malfunction has become known. It shall be updated as frequently as practicable and the frequency of dissemination of the updated information shall increase as the anticipated time of re-entry into the dense layers of the Earth’s atmosphere approaches so that the international community will be informed of the situation and will have sufficient time to plan for any national response activities deemed necessary.

3. The updated information shall also be transmitted to the Secretary-General of the United Nations with the same frequency.

## Principle 7. Assistance to States

1. Upon the notification of an expected re-entry into the Earth's atmosphere of a space object containing a nuclear power source on board and its components, all States possessing space monitoring and tracking facilities, in the spirit of international cooperation, shall communicate the relevant information that they may have available on the malfunctioning space object with a nuclear power source on board to the Secretary General of the United Nations and the State concerned as promptly as possible to allow States that might be affected to assess the situation and take any precautionary measures deemed necessary.

2. After re-entry into the Earth's atmosphere of a space object containing a nuclear power source on board and its components:

(a) The launching State shall promptly offer and, if requested by the affected State, provide promptly the necessary assistance to eliminate actual and possible harmful effects, including assistance to identify the location of the area of impact of the nuclear power source on the Earth's surface, to detect the re-entered material and to carry out retrieval or clean-up operations;

(b) All States, other than the launching State, with relevant technical capabilities and international organizations with such technical capabilities shall, to the extent possible, provide necessary assistance upon request by an affected State.

In providing the assistance in accordance with subparagraphs (a) and (b) above, the special needs of developing countries shall be taken into account.

## Principle 8. Responsibility

In accordance with article VI of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, States shall bear international responsibility for national activities involving the use of nuclear power sources in outer space, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that such national activities are carried out in conformity with that Treaty and the recommendations contained in these Principles. When activities in outer space involving the use of nuclear power sources are carried on by an international organization, responsibility for compliance with the aforesaid Treaty and the recommendations contained in these Principles shall be borne both by the international organization and by the States participating in it.

## Principle 9. Liability and compensation

1. In accordance with article VII of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, and the provisions of the Convention on International Liability for Damage Caused by Space Objects,<sup>3</sup> each State which launches or procures the launching of a space object and each State from whose territory or facility a space object is launched shall be internationally liable for damage caused by such space objects or their component parts. This fully applies to the case of such a space object carrying a nuclear power source on board. Whenever two or more States jointly launch such a space object, they shall be jointly and severally liable for any damage caused, in accordance with article V of the above mentioned Convention.

2. The compensation that such States shall be liable to pay under the aforesaid Convention for damage shall be determined in accordance with international law and the principles of justice and equity, in order to provide such reparation in respect of the damage as will restore the person, natural or juridical, State or international organization on whose behalf a claim is presented to the condition which would have existed if the damage had not occurred.

3. For the purposes of this principle, compensation shall include reimbursement of the duly substantiated expenses for search, recovery and clean-up operations,<sup>57</sup> including expenses for assistance received from third parties.

## Principle 10. Settlement of disputes

two years after their adoption.

E. Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries<sup>14</sup>

*The General Assembly,*

*Having considered* the report of the Committee on the Peaceful Uses of Outer Space on the work of its thirty-ninth session<sup>15</sup> and the text of the Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries, as approved by the Committee and annexed to its report,<sup>16</sup>

*Bearing in mind* the relevant provisions of the Charter of the United Nations,

*Recalling* notably the provisions of the Treaty on the Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies,<sup>1</sup>

*Recalling also* its relevant resolutions relating to activities in outer space,

*Bearing in mind* the recommendations of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space,<sup>17</sup> and of other international conferences relevant in this field,

*Recognizing* the growing scope and significance of international cooperation among States and between States and international organizations in the exploration and use of outer space for peaceful purposes,

*Considering* experiences gained in international cooperative ventures,

*Convinced* of the necessity and the significance of further strengthening international cooperation in order to reach a broad and efficient collaboration in this field for the mutual benefit and in the interest of all parties involved,

*Desirous* of facilitating the application of the principle 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 interest of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind,

*Adopts* the Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries, set forth in the annex to the present resolution.

Annex. Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of all States, Taking into Particular Account the Needs of Developing Countries

1. International cooperation in the exploration and use of outer space for peaceful purposes (hereafter “international cooperation”) shall be conducted in accordance with the provisions of international law, including the Charter of the United Nations and the Treaty on the Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies. It shall be carried out for the benefit and in the interest of all States, irrespective of their degree of economic, social or scientific and technological development, and shall be the province of all mankind. Particular account should be taken of the needs of developing countries.

2. States are free to determine all aspects of their participation in international cooperation in the exploration and use of

4. International cooperation should be conducted in the modes that are considered most effective and appropriate by the countries concerned, including, inter alia, governmental and non-governmental; commercial and non-commercial; global, multilateral, regional or bilateral; and international cooperation among countries in all levels of development.
  5. International cooperation, while taking into particular account the needs of developing countries, should aim, inter alia, at the following goals, considering their need for technical assistance and rational and efficient allocation of financial and technical resources:
    - (a) Promoting the development of space science and technology and of its applications;
    - (b) Fostering the development of relevant and appropriate space capabilities in interested States;
    - (c) Facilitating the exchange of expertise and technology among States on a mutually acceptable basis.
  6. National and international agencies, research institutions, organizations for development aid, and developed and developing countries alike should consider the appropriate use of space applications and the potential of international cooperation for reaching their development goals.
  7. The Committee on the Peaceful Uses of Outer Space should be strengthened in its role, among others, as a forum for the exchange of information on national and international activities in the field of international cooperation in the exploration and use of outer space.
- All States should be encouraged to contribute to the United Nations Programme on Space Applications and to other initiatives in the field of international cooperation in accordance with their space capabilities and their participation in the exploration and use of outer space