United Nations Principles on Outer Space*

By

Prof. Dr. Ram Jakhu**

Introduction

In addition to five major international space treaties,[1] the fundamental principles relating to outer space are in several resolutions adopted through the United Nations General Assembly UNGA). The principles that were agreed upon prior to the adoption of the 1967 Outer Space Treaty have been largely incorporated in the Treaty as well as in other UN agreements on outer space. In this presentation, I intend to briefly describe only those principles that have not been included in these treaties. Some of them are:

- The principles governing the use of satellites for international television broadcast,
- The principle of universal access to satellite telecommunication services,
- The principles governing satellite remote sensing activities,
- The principles relevant to the use of nuclear power sources in outer space,
- The principles relating to international cooperation in the exploration and use of outer space for the benefit and in the interest of all States,
- The principles relating to the prevention of an arms race in outer space (PAROS), and
- The principle condemning propaganda for threat or breach of international peace.

---

* Notes for a presentation made at the United Nations/Nigeria Workshop on Space Law entitled "Meeting international responsibilities and addressing domestic needs" held on 21-24 November 2005, at Rockview Hotel, Abuja, Nigeria.

** B.A., LL.B., LL.M., (Panjab), LL.M. (McGill), D.C.L.; Associate Professor, Institute of Air and Space Law, Faculty of Law; Director of the Center for the Study of Regulated Industries; McGill University, Montreal, Canada. Member of the Board of Directors, International Institute of Space Law, Paris, France. Formerly, the first Director of the Master of Space Studies Program of International Space University, Strasbourg, France.

1 *Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies* (hereinafter referred to as the Outer Space Treaty); opened for signature on 27 January 1967, entered into force on 10 October 1967; 98 ratifications and 27 signatures (as of 1 January 2005), 610 UNTS 205; *The Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space* (the "Rescue Agreement," adopted by the General Assembly in its resolution 2345 (XXII)), opened for signature on 22 April 1968, entered into force on 3 December 1968; 88 ratifications, 25 signatures, and 1 acceptance of rights and obligations (as of 1 January 2005), 672 UNTS 119; *The Convention on International Liability for Damage Caused by Space Objects* (the "Liability Convention," adopted by the General Assembly in its resolution 2777 (XXVI)), opened for signature on 29 March 1972, entered into force on 1 September 1972; 82 ratifications, 25 signatures, and 2 acceptances of rights and obligations (as of 1 January 2005), 961 UNTS 187; *The Convention on Registration of Objects Launched into Outer Space* (the "Registration Convention," adopted by the General Assembly in its resolution 3235 (XXIX)), opened for signature on 14 January 1975, entered into force on 15 September 1976; 45 ratifications, 4signatures, and 2 acceptances of rights and obligations (as of 1 January 2005), 1023 UNTS 15; and *The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies* (the "Moon Agreement," adopted by the General Assembly in its resolution 34/68), opened for signature on 18 December 1979, entered into force on 11 July 1984; 11 ratifications and 5 signatures (as of 1 January 2005), 1363 UNTS 3.

These principles are described here with a view to assess their importance and role in regulating the international behavior of States in the conduct of their respective outer space activities.

1. The principles governing the use of satellites for international TV broadcast

The control of flow of information has always been highly political both nationally and internationally. From the dawn of the space age, direct broadcasting by satellite (DBS), has been controversial as the 'have not' States and others feared that this technology would possibly erode their cultures and economies. They favored the requirement of agreements between the transmitting and receiving States prior to the start of a DBS service. This approach has been dubbed as 'prior consent' argument, which has essentially been based on the principle of State sovereignty under which a State has exclusive right to control the flow of information on its territory. On the other hand, some States have been arguing that there should not be any requirement of 'prior consent', because the freedom of broadcasting has been well-recognized. This view has been primarily based on the 1948 Universal Declaration of Human Rights and other human rights conventions.[2]

In 1982, the UN General Assembly adopted a Resolution on Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting.[3] The most important and relevant principles of the Resolution are included in its following paragraphs:

> "13. 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.
>
> 14. 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.
>
> 15. With respect to the unavoidable over-spill of the radiation of the satellite signal, the relevant instruments of the International Telecommunication Union shall be exclusively applicable."

These principles tend to support the 'prior consent' argument. However, the following two points need to be noted; i.e.:

---

2 Article 19 of the 1948 Universal Declaration of Human Rights, specifies that "Everyone has the right to freedom of opinion and expression: this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any means and regardless of frontiers". The essential elements of this Article have been adopted in Article 19 of the 1966 International Covenant on Civil and Political Rights and Article 10 of the 1954 European Convention on Human Rights.

3 United Nations General Assembly Resolution 37/92, adopted by 107 votes to 13, with 13 abstentions, on 10 December 1982; UN Document A/37/PV.100 of 17 December 1982.

(1) This Resolution was adopted after over two decades of discussions in the COPUOS, which could not resolve the issue on a consensus basis and the final decision had to be made by the UNGA by a majority vote.[4] Most of the Western countries either voted against or abstained from voting; and

(2) Normally, all resolutions of the UN General Assembly, except for internal purposes, are considered non-binding instruments; however, when adopted unanimously they could become a basis for the development of customary international law.

A number of States have been making declarations, in and outside the COPUOS, expressing the limitations on the freedom of satellite broadcasting and their sovereign right to control foreign satellite broadcasts. Thus, there has not been any acquiescence or tacit agreement on the freedom of broadcasting by foreign satellite. This position is supported by the 1972 UNESCO Declaration on Satellite Broadcasting[5] and the ITU Frequency Allotment Plans for DBS.[6] More importantly, the ITU Radio Regulations have the effect that no international DBS service could be started without the consent of the receiving State. For example, Radio Regulation no. 2674, which was originally adopted in 1971, specifies that:

> "In devising the characteristics of a space station in the broadcasting-satellite service, all technical means available shall be used to reduce, to the maximum the radiation over the territory of other countries unless an agreement has been previously reached with such countries."

Therefore, it can be said that the 1982 UN Resolution though not *per se*, but with the corroboration by the ITU Regulations, entitles each State, if it chooses to exercise it, the right to object to any unwanted foreign satellite broadcasts beamed to its territory without its consent.

Recently, several satellite operators have started using medium-powered telecommunication satellites for TV transmissions to foreign States and thus defeating the original aim of 'prior consent' for direct satellite broadcasting. In my opinion, the use of 'medium powered telecommunication satellites for TV transmissions' is not only contrary to the 1982 UN Resolution on direct television satellite broadcasting but also is illegal as it violates international

---

4 Ibid.

5 Article IX of the 1972 UNESCO Declaration of Guiding Principles on the Use of Satellite Broadcasting for the Free Flow of Information, the Spread of Education and Greater Cultural Exchange states that : "In order to further the objectives set out in the preceding Articles, it is necessary that States, taking into account the principle of freedom of information, reach or promote prior agreements concerning DBS to the population of countries other than the country of origin of the transmission....., with respect to commercial advertising, its transmissions shall be subject to special agreement between the originating and the receiving States."

6 The 1977 and 1983 ITU Frequency Allotment Plans (international treaties included in ITU Radio Regulations, Appendixes 30A and 30 B) allow the use of 12 GHz band of radio frequencies for DBS for national coverage only. Such frequencies could be used for international services only on the bases of prior agreement between the transmitting and receiving States and only after following procedures for the modification of relevant Plans.

Radio Regulations, which require that radio frequencies notified to and registered with International Telecommunication Union must be used only for the notified purpose (service). [7]

2. The principle of universal access to satellite telecommunication services

The principle of universal access to satellite telecommunication services was adopted as earlier as 1961. The UN General Assembly under its Resolution 1721 (D) unanimously declared that "communication by means of satellites should be available to the nations of the world as soon as practicable on a global and non-discriminatory basis".[8] The first implementation of the principle was effected through INTELSAT Agreements.[9] After reiterating this principle in its Preamble, the INTELSAT Agreement specified that "satellite telecommunications should be organized in such a way as to permit all peoples to have access to the global satellite system". Moreover, INTELSAT's prime objective had been designed to provide "international public telecommunications services of high quality and reliability to be available on a non-discriminatory basis to all areas of the world."[10] Similarly, provisions had been made in the INMARSAT Convention with respect to a global and non-discriminatory access to its space segment[11] and non-discriminatory nature of charges for its services.[12] In fact, the principle of universal access to telecommunications services resulted in providing services to almost all countries of the world, and has been particularly beneficial to developing countries that did not have the need, nor the means to establish their own satellite systems.

However, the principle of non-discriminatory universal access to satellite telecommunication services has been recently compromised by privatizing both the INTELSAT and INMARSAT organizations. Francis Lyall correctly pointed out that, the privatization of INTELSAT,

---

7 Article 5 of the ITU Radio Regulations contains a Table of Frequency Allocations specifying the bands of radio frequencies that have been allocated to the enumerated radio services. All ITU Member States are obliged to assign radio frequencies to their satellites (space stations) "in accordance with the Table of Frequency Allocations and other provisions of these Regulations" (ITU Radio Regulations Articles 4.2 and 4.3.). Moreover, the Regulations emphasize that "Member States shall not assign to a station any frequency in derogation of either the Table of Frequency Allocations ….. or the other provisions of these Regulations" (ITU Radio Regulations Articles 4.4). Therefore, radio frequencies that have been allocated to Fixed Satellite Service (telecommunication satellites) can not be legally assigned by an ITU Member State to its satellite that would provide a Broadcasting Satellite Service, including direct to home satellite television broadcasting.

8 UN General Assembly Resolution 1721 (XVI) (D) (1961).

9 *Agreement Relating to the International Telecommunications Satellite Organization* (INTELSAT), 23 UST 3813.T1AS 7532; (1971) 101 LM 1909.

10 Article III of the Agreement Relating to the International Telecommunications Satellite Organization (INTELSAT), 23 UST 3813, TIAS 7532; (1971) 10 ILM 1909.

11 Article 7(1), Convention Establishing International Maritime Satellite Organization (INMARSAT), *Final Acts of International Conference on the Establishment of an International Maritime Satellite System*. Inter-Governmental Maritime Consultative Organization, London, 1976, pp. 25-47.

12 Ibid, Article 19.

especially the way it has been achieved, is "an unwelcome development and indeed arguably contrary to Article I of the Outer Space Treaty" as well as UN Resolution 1721 (D).[13] The privatized INTELSAT and INMARSAT are not under any legal obligation to provide non-discriminatory universal access to their services and also could now be subjected to national legal and policy actions like sanctions against certain counties; thus deny services to these countries. Therefore, as a result of privatization of INTELSAT and INMARSAT, countries that generate low telecommunication traffic might not be served by these entities because of economic reasons and thus they would not have access to satellite telecommunication services on a non-discriminatory and universal basis.

3. The principles governing satellite remote sensing activities[14]

Political and legal issues related to remote sensing by satellite are similar to the ones for direct television satellite broadcasting. The international principles that specifically govern remote sensing satellites and access to satellite imagery were discussed in the Legal Subcommittee of the COPUOS for about two decades. There were two opposing views: the first view was presented by the States (i.e. the US and some other developed countries) that advocated unrestricted use of satellites for remote sensing and freedom of distribution of satellite imagery. The second view, advanced by the developing, socialist and some developed countries, stressed that the acquisition and distribution of the satellite imagery must be governed by the principle of State sovereignty. Thus, they advocated the need of prior consent of the sensed State for acquisition and distribution of satellite imagery.

Since outer space has been declared free for exploration and use by all States, the use of satellites for remote sensing has not been seriously questioned. It is important to note that there is a general consensus that the freedom of remote sensing by satellite has been well recognized and has also become a principle of international customary law. It can be said that no prior consent is legally required for launching and operating remote sensing satellites. However, the reception, processing and distribution of the data acquired by remote sensing are essentially earth-based activities; thus main focus of the discussion has been on the distribution of remote sensing data.

In 1986, a compromise was achieved when the UN General Assembly adopted unanimously a Resolution containing the Principles Relating to Remote Sensing of the Earth from Outer Space.[15] Under this Resolution, as stated in Principle XII,[16] the developing countries (and several

13 "On the Privatisation of INTELSAT", 28, *Journal of Space Law*, 2000, pp. 101-19. Also see, Jakhu, Ram, "Safeguarding the Concept of Public Service and the Global Public Interest in Telecommunications", 5(1) *Singapore Journal of International and Comparative Law*, 2001, pp. 71 *et seq.*

14 For details, see Jakhu, Ram, "International Law Regarding the Acquisition and Dissemination of Satellite Imagery", Vol. 29 (No. 1 &2), *Journal of Space Law*, 2003, pp. 65 *et seq*.

15 UN General Assembly Resolution 41/65, adopted without vote on 3 December 1986.

16 Principle XII of the Resolution provides that: "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 analyzed information

socialist and developed countries) gave up their demand for prior consent in exchange for the recognition of the right of the sensed State to have access to the primary data[17] and the processed data[18] concerning its territory "on a non-discriminatory basis and on reasonable cost terms". The sensed State has also been entitled to have access to the available analyzed information[19] concerning its territory "on the same basis and terms, taking particularly into account the needs and interests of the developing countries."[20] The Resolution clearly establishes a balance of interests of both the sensing and sensed States.

Principle XII, with its mandatory wording, clearly recognizes the legal right of the sensed State to seek from the sensing State satellite imagery of its own territory. The principle is considered by several well-known publicists as to have become a part of customary international law.[21] It is therefore expected of the sensing State(s) to positively respond to the requests by the sensed States for satellite imagery of their respective territories. A denial of such a request would be considered contrary to the provisions of the 1986 Resolution, particularly its Principle XII.

Unfortunately, some States have started imposing extensive national prohibitions on the collection and distribution of remote sensing imagery. For example, under the U.S. law a licensee of a private Earth remote sensing satellite system is obliged to make available to any sensed State only un-enhanced data;[22] however, no data are to "be provided to the sensed state if such release is contrary to U.S. national security concerns, foreign policy or international

---

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."

17 Ibid. Principle 1, the term "primary data" means "the 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."

18 Ibid, the term "processed data" means "the products resulting from the processing of the primary data, needed to make such data usable."

19 Ibid, the term "analyzed information" means "the information resulting from the interpretation of processed data, inputs of data and knowledge from other sources."

20 Ibid, Principle XII.

21 See Jakhu, Ram, "International Law Regarding the Acquisition and Dissemination of Satellite Imagery", Vol. 29 (No. 1 &2), *Journal of Space Law*, 2003, footnote 63.

22 National Oceanic and Atmospheric Administration (NOAA) of the US Department of Commerce, Interim Final Regulations relating to the Licensing of Private Land Remote-Sensing Space Systems, 15 C.F.R. Part 960, (issued on 31 July 2000 under the Land Remote Sensing Policy Act of 1992; 15 U.S.C. 5601 et seq. ; Public Law 102-555, 106 Stat. 4163) regulates private remote sensing satellite systems. Section 960.03 of these Regulations defines "Unenhanced data" as "remote sensing signals or imagery products that are unprocessed or subject only to data preprocessing. Data preprocessing may include rectification of system and sensor distortions in remote sensing data as it is received directly from the satellite; registration of such data with respect to features of the Earth; and calibration of spectral response with respect to such data. It docs not include conclusions, manipulations, or calculations derived from such data, or a combination of such data with other data. It also excludes phase history data for synthetic aperture radar systems or other space-based radar systems."

obligations or is otherwise prohibited by law, e.g. where transactions with the sensed state are prohibited by the laws of the United States."[23] This law has extraterritorial application with respect to the distribution of satellite imagery by all foreign operators that have a link with the U.S.[24] Similarly, Canada is already committed to follow the American approach. On 5th October 2005, the House of Commons of the Canadian Parliament passed[25] a Bill known as An Act Governing the Operation of Remote Sensing Space Systems.[26] Once passed by the Canadian Senate and proclaimed as an Act, it will have the effects similar to those under the American law. The Canadian Minister of Foreign Affairs may issue a license, renew or amend a license, but may impose conditions that the Minister considers appropriate.[27] One of the specified conditions states that raw data and remote sensing products from the remote sensing satellite system about the territory of any country be made available to the government of that country within a reasonable time and on reasonable terms, but subject to any conditions relating to national security and foreign affairs interests of Canada.[28]

I believe that the above-mentioned unilateral application of restrictions purely on the basis of exclusive national interests is contrary to the principles of the 1986 UN Resolution on remote sensing and thus would impede non-discriminatory access to any satellite imagery.

4. The principles relevant to the use of nuclear power sources in outer space

It is well-recognized that "some missions in outer space nuclear power sources are particularly suited or even essential owing to their compactness, long life and other attributes."[29] But it is considered important that the use of nuclear power sources in outer space should "be based on a thorough safety assessment, including probabilistic risk analysis" and be "reducing the risk of

23 Ibid, Sec. 960.11(10).

24 Jakhu, Ram, "International Law Regarding the Acquisition and Dissemination of Satellite Imagery", Vol. 29 (No. 1 &2), *Journal of Space Law*, 2003, pp. 65 *et seq.*

25 http://www.parl.gc.ca/38/1/parlbus/ chambus/house/bills/government/C-25/C-25_3/C-25_cover-E.html (accessed 10 October 2005).

26 Available at http://www.parl.gc.ca/common/ Bills_House_Government.asp?Language=E&Parl=38&Ses=1 (accessed 20 July 2005). (hereinafter referred to as Remote Sensing Space Systems Act,) See also, Government of Canada, Department of Foreign Affairs and International Trade, CANADA TABLES LEGISLATION REGULATING REMOTE SENSING SPACE SYSTEMS, News Release (No. 136, 23 November 2004) available at http://w01.international.gc.ca/minpub/Publication.asp?Language=E&publication_id=381804 (accessed 20 July 2005). For legislative history of the Act, see http://www.parl.gc.ca/common/Bills_ls.asp?lang=E&Parl=38&Ses=1&ls=C25&source=Bills_House_Government (accessed 10 October 2005).

27 Remote Sensing Space Systems Act, subsection 8(1).

28 Ibid, subsection 8(4).

29 Preamble to *Principles Relevant to the Use of Nuclear Power Sources In Outer Space*, UN General Assembly Resolution 47/68, adopted without vote on 14 December 1992.

accidental exposure of the public to harmful radiation or radioactive material."[30] Therefore, the UN General Assembly adopted in 1992 a Resolution[31] containing a set of principles, goals and guidelines to ensure the safe use of nuclear power sources in outer space, particular for the generation of electric power on board space objects for non-propulsive purposes.

The use of nuclear power sources in outer space must be restricted to those space missions which cannot be operated by non-nuclear energy sources in a reasonable way.[32] States launching[33] space objects with nuclear power sources on board are obliged to protect individuals, populations and the biosphere against radiological hazards. Nuclear reactors may be operated (i) on interplanetary missions, (ii) in sufficiently high orbits,[34] and (iii) in low-Earth orbits if they are stored in sufficiently high orbits after the operational part of their mission. Nuclear reactors must use only highly enriched uranium 235 as fuel.

A launching State is obliged to ensure that a thorough and comprehensive safety assessment is conducted. The results of such assessment must be made publicly available prior to each launch.[35] Similarly, some specified critical information must be made public in a timely fashion, particularly in the event the space object is malfunctioning with a risk of re-entry of radioactive materials to the Earth. The launching State must also communicate such information to the Secretary-General of the United Nations.[36]

After re-entry into the Earth's atmosphere of a space object containing a nuclear power source on board and its components, the launching States are obliged to promptly offer and, if requested by the affected State, provide promptly the necessary assistance to eliminate actual and possible harmful effects. In providing the assistance, the special needs of developing countries shall be taken into account.[37]

30 Ibid.

31 *Principles Relevant to the Use of Nuclear Power Sources In Outer Space*, UN General Assembly Resolution 47/68, adopted without vote on 14 December 1992.

32 Ibid, Principle 3. Guidelines and criteria for safe use.

33 Ibid, Principle 2 (1) 1 defines the terms “State launching” and "launching State" as “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.”

34 Ibid, Principle 1 (2) (b) defines the term “sufficiently high orbit” as the “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.”

35 Ibid, Principle 4: Safety assessment.

36 Ibid, Principle 5: Notification of re-entry.

37 Ibid, Principle 7: Assistance to States.

These Principles are required to be reopened for revision by the COPOUS.[38] Pursuant to this requirement, the Committee has been deliberating various issues related to these principles.[39]

These principles seem to have been consistently complied with. For example, the U.S. notified the UN about the launch of Cassini – the spacecraft powered by 33 kilograms of plutonium.[40] Cassini, a joint endeavor of NASA, the European Space Agency and the Italian Space Agency, was launched to study Saturn and its magnetic and radiation environment.

5. The principles relating to international cooperation in the exploration and use of outer space for the benefit and in the interest of all States[41]

Particularly with the desire of "facilitating the application of the principle that the exploration and use of outer space,….. shall be carried out for the benefit and in the interest of all countries, irrespective of their degree of economic or scientific development," the UN General Assembly, adopted 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.[42] The key points of the principles included in this Declaration are:

> "All States, particularly those with relevant space capabilities and with programmes for the exploration and use of outer space, should contribute to promoting and fostering international cooperation on an equitable and mutually acceptable basis. In this context, particular attention should be given to the benefit and the interests of developing countries and countries with incipient space programmes stemming from such international cooperation conducted with countries with more advanced space capabilities."[43]

---

38 Ibid, Principle 11: Review and Revision.

39 *Report of the Scientific and Technical Subcommittee on the Work of its Thirty-first Session*, UN Committee on the Peaceful Uses of Outer Space, UN Document A/AC.105/571 of 10 March 1994, paragraphs 53 *et seq.* Also see *Report of the Scientific and Technical Subcommittee* (of UN Committee on the Peaceful Uses of Outer Space) on its Forty-second Session, held in Vienna from 21 February to 4 March 2005, UN Document A/AC.105/848 of 25 February 2005, paragraphs 108 *et seq.*

40 *Note verbale dated 2 June 1997 from the Permanent Mission of the United States of America to the United Nations (Vienna) addressed to the Secretary-General*, UN Document A/AC.105/677 of 4 June 1997**.** Also see, *Cassini Skirts Earth with 33kgs of Plutonium*, available at http://www.spacedaily.com/news/cassini-99c.html (accessed 18 August 1999).

41 For detailed discussion of this principle, see Thaker, J., "The Development of the Outer Space Benefit Declaration", *Annals of Air and Space Law*, 1997, pp. 537 *et seq.*

42 *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*, adopted without vote as UN General Assembly Resolution A/RES/51/122 on 13 December 1996.

43 Ibid, Principle 3.

> "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."[44]

The principles included in the 1996 Declaration are mere reiterations and some elaborations of the provisions of the Outer Space Treaty, particularly its Article I, para. 1. The language used in the Declaration is such that it does not seem to create any new norm for international cooperation. They do not create an implementable duty to cooperate nor to transfer space technology. States remain "free to determine all aspects of their participation in international cooperation in the exploration and use of outer space."[45] More importantly, the contractual terms of such cooperative ventures need to be fair and reasonable and respectful to "the legitimate rights and interests of the parties concerned, as, for example, with intellectual property rights."[46] It is therefore believed that these principles unfortunately would remain ineffective and un-implemented, at least in the near future.

6. The principles relating to the prevention of an arms race in outer space (PAROS)

Article IV of the Outer Space Treaty contains a specific prohibition against "placing in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction."[47] However, the Article does not prohibit the military use of outer space *per se*. Neither does it ban anti-satellite (ASAT) or space-based ballistic missile defense (BMD)

---

44 Ibid, Principle 5.

45 Ibid, Principle 2.

46 Ibid, Principle 2.

47 Article IV of the Outer Space Treaty provides that: "States Parties to the Treaty undertake 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. The Moon and other celestial bodies shall be used by all States Parties to the Treaty exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military maneuvers on celestial bodies shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration of the Moon and other celestial bodies shall also not be prohibited."

systems, provided they do not carry 'nuclear weapons' or 'weapons of mass destruction' (WMD). Thus, Article IV is limited in its coverage of nuclear weapons and other WMD in outer space and this gap needs to be filled by a new agreement supplementing the Outer Space Treaty.

The object of the Outer Space Treaty is to assure peaceful uses of outer space for the benefit of all. Excessive militarization that would damage the peaceful utilization of outer space is contrary to the provisions of the Outer Space Treaty. Also, excessive militarization as well as the deployment of space weapons of any kind, would in all likelihood lead to an arms race in outer space and thus would be contrary to Article III of the Outer Space Treaty as such an arms race would threaten international peace and security as well as international cooperation.[48]

The probability of a space arms race is real; therefore since 1982, a series of UN General Assembly Resolutions on PAROS have been adopted every year. In 2004, member States of the international community overwhelmingly reaffirmed the provisions of Articles III and IV of the Treaty and urged all States to strive to prevent an arms race in outer space, to maintain international peace and security and to promote international cooperation.[49] The Resolution recognized that "prevention of an arms race in outer space would avert a grave danger for international peace and security."[50] The UN General Assembly called upon "all States, in particular those with major space capabilities, to contribute actively to the objective of the peaceful use of outer space and of the prevention of an arms race in outer space and to refrain from actions contrary to that objective and to the relevant existing treaties in the interest of maintaining international peace and security and promoting international cooperation."[51] In 2004, the representative of Sri Lanka to the UNGA First Committee stated that, "the annual presentation of the PAROS resolution in the First Committee and the almost universal endorsement of its principles... has had the salutary effect of according to these objectives the status of customary law."[52]

48 Article III of the Outer Space Treaty, provides that "States Parties to the Treaty shall carry on activities in the exploration and use of outer space, including the Moon and other celestial bodies, in accordance with international law, including the Charter of the United Nations, in the interest of maintaining international peace and security and promoting international co-operation and understanding."

49 UN General Assembly, *Prevention of an arms race in outer space*, Resolution A/RES/59/065 adopted on 17 December 2004 by 178 votes in favor, none against and with 4 abstentions (i.e., Haiti, Israel, Palau, and the United States).

50 UN General Assembly, *Prevention of an arms race in outer space*, Resolution A/RES/59/065 adopted on 17 December 2004 by 178 votes in favor, none against and with 4 abstentions (i.e., Haiti, Israel, Palau, and the United States).

51 Ibid.

52 Cited from http://www.reachingcriticalwill.org/political/1com/FCM05/week5.html#4 (accessed 17 November 2005).

The standard annual PAROS Resolution was again presented this month (i.e. November 2005) in the First Committee of the UN General Assembly.[53] The Resolution has been adopted and the result of voting indicated 160 States in favor, with Israel abstaining (as it has done every year) and the U.S. voting against it.[54]

Currently, as far as is known, there are no weapons in outer space. However, one State seems to be determined to develop and possibly use space weapons. Thus the principles included in the PAROS Resolutions would obviously remain unimplemented and ineffective, unless all States refrain from deploying all kinds of weapons in outer space.

7. The principle condemning propaganda for threat or breach of international peace

The last but not the least principle is the one which condemns propaganda for threat or breach of international peace. The UN General Assembly in its Resolution 110 (II) of 3 November 1947, condemned propaganda designed or likely to provoke or encourage any threat to the peace, breach of the peace or act of aggression. This Resolution has been referred to in the Preamble of the Outer Space Treaty and is considered applicable to outer space.

Similar provisions of international law are contained in the 1936 Broadcasting Convention.[55] Article 1 of the Treaty provides that:

> "The High Contracting Parties mutually undertake to prohibit and, if occasion arises, to stop without delay the broadcasting within their respective territories of any transmission which to the detriment of good international understanding is of such a character as to incite the population of any territory to acts incompatible with the internal order or the security of a territory of a High Contracting Party."

In addition, Article 2 of the Treaty prohibits broadcasting, which constitutes, or is likely to lead to, an incitement to war against another Contracting State.

Currently there are only about 60 States Parties to the Convention. While the Peoples' Republic of China and the U.S. never became Parties to the Convention, France and the United Kingdom have withdrawn from this treaty in early 1980s. If such is the position on an international treaty of the four permanent members of the UN Security Council, it should not be difficult to imagine

---

53 United Nations General Assembly, First Committee, sixtieth session, Agenda item 96, *Prevention of an arms race in outer space*, UN Document A/C.1/60/L-27 of 12 October 2005.

54 http://www.reachingcriticalwill.org/political/1com/FCM05/week5.html#4 (accessed 17 November 2005).

55 *International Convention concerning the Use of Broadcasting in the Cause of Peace*, signed in Geneva on 23 September 1936, entered in to force on 2 April 1938. The text of the Treaty and list of Parties are available at http://untreaty.un.org/ENGLISH/bible/englishinternetbible/partII/treaty-1.asp (accessed 10 March 2005).

their passive or even negative attitude towards the principle that condemns propaganda for threat or breach of international peace as specified in the UN Resolution 110 (II).

Concluding remarks

This brief description of some of the most relevant UN principles on outer space indicates that they have generally been based on the concept of fair balance of interests of all the negotiating States. However, they have mostly been drafted in broad terms and without any specific commitments. Wherever one finds in these principles precise obligations, unfortunately some States do not fully respect them, even those that are considered to have become customary international law. Unilateral and exclusive space policies pursued and activities undertaken by such States are being rationalized with unfettered freedom of use, without due regard to the corresponding interests of other States, and thus undermining the importance and value of several important UN principles on outer space.

The need and process of negotiating principles through the UN should not be considered totally unnecessary. I believe that they provide useful avenues and tools for exchanging views and coming to consensus on important issues. But what is required is sincere allegiance on the part of the States to fulfill their commitments under the UN Resolutions in good faith. They should also consider such commitments as foundations to be transformed into international treaties in order to further develop and strengthen legal order of outer space. More importantly, if States Members of the COPUOS believe that some other States have been acting contrary to the UN principles on outer space, they must consistently voice their concerns so that the actions of the latter are not considered to have gained approval by acquiesce or silence on the part of the former.

THANK YOU FOR YOUR ATTENTION