

Evolution from Policy towards Law: International Cooperation in the Peaceful Uses of Outer Space

*Liao Minwen**

Abstract

This paper is designed to do research on the evolution of international cooperation policy in the peaceful uses of outer space (hereinafter ICPPUOS, PUOS as abbr. for “the peaceful uses of outer space”) in a comparative approach and historical perspective. Its purpose is to demonstrate the influence of ICPPUOS on the formation of international cooperation law in the peaceful uses of outer space (hereinafter ICLPUOS). The paper is designed to be composed of three parts besides its introduction and conclusion. The first part is designed to elaborate the evolutionary processes of ICPPUOS. The second part is designed to discuss how ICPPUOS influences the formation of the legal principles, norms and requirements of international cooperation in PUOS. The third part is designed to introduce China’s national policies on international cooperation in PUOS and their characteristics. The main proposition of the paper is that because of the importance of international cooperation in developing the rule of law in relation with the exploration and use of outer space for peaceful purposes, there should have more ICPPUOS transformed into guiding legal principles on the unique platform at the global level for international cooperation in space activities represented by the Committee on the Peaceful Uses of Outer Space (hereinafter COPUOS) so as to promote the development of international space law (hereinafter ISL) and guide the practice of the States Members of the United Nations (hereinafter States, UN as abbr. for United Nations) in international cooperation in PUOS.

Introduction

Outer space means to humankind a unique environment where he can present his wisdom of science and technology and his courage to explore and utilize this extraordinary natural resource, and where he also presents his desire to establish a peaceful international order beneficial to his activities. This desire

* University of Political Science and Law, Beijing, PRC, lmw_1216216@163.com.

gives the impetus to the evolution of ISL which becomes the indispensable part of international law.

States are required to carry out international cooperation under international law and States' international cooperation in PUOS is particularly important and necessary because of the extraordinary characteristics of outer space. International cooperation in PUOS means international cooperation in the exploration and use of outer space for peaceful purposes. There are two fields of international cooperation in PUOS, one field is international cooperation in the development of ISL and another is that in the advancement of space science and technology and its applications.

ISL has its main component laws such as Outer Space Treaty (hereinafter OST),¹ Rescue Agreement (hereinafter ARRA),² Liability Convention (hereinafter LIAB),³ Registration Convention (hereinafter REG)⁴ and Moon Agreement (hereinafter MOON).⁵ However, there has been not yet ICLPUOS in the strict legal meaning. ICLPUOS has not yet come out as other ISL components have. It is still under its way from international policy to international law, that is, it is still in the form of declaration with less binding effect than law.

The relationship between international policy and international law is that they can mutually promote their development. A new international policy can be derived from an existing international law, while an international policy, when it is well-recognized and generally kept as a guideline or a norm, can be transformed into a new international law. Now, international cooperation in PUOS is still in its evolutionary processes from policy to law. It is necessary and important for international law scholars to make study and deliberations on this evolution and the issues relating to ISL and its future development.

I. The Evolutionary Processes of ICPPUOS TO ICLPUOS

The purpose of the present part is designed to demonstrate the influence of ICP-PUOS on the formation of ICLPUOS by study of the evolution of ICPPUOS in comparative approach and historical perspective with reference to UN General Assembly resolutions (hereinafter (a) GA resolution(s), GA as abbr. for General Assembly).

1 Abbr. for "Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the moon and Other Celestial Bodies".

2 Abbr. for "Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space".

3 Abbr. for "Convention on International Liability for Damage Caused by Space Objects".

4 Abbr. for "Convention on Registration of Objects Launched into Outer Space".

5 Abbr. for "Agreement Governing the Activities of States on the Moon and Other Celestial Bodies".

I.I. UN Charter and DPIL: Policy behind Law

There are two international law instruments acting as the legal sources of ICP-PUOS, namely, the Charter of the United Nations (hereinafter UN Charter) and Declaration on Principles of International Law (hereinafter DPIL).⁶

They establish the principle of international cooperation and elaborate its implication. In the term of international cooperation in PUOS, “international cooperation” herein has its legal source in international law. As a legal term, international cooperation originally appears in UN Charter, in the wording of “To achieve international cooperation in solving international problems of an economic, social, cultural, or humanitarian character...”⁷ Here the word “humanitarian”, in a common sense, means “concerned with improving the life of mankind and reducing suffering”, and has been elaborated by the subsequent international law instruments as “the welfare of mankind”.

Besides the establishment of the principle of international cooperation and the elaboration of its implication, the two instruments also provided the fields in which States have the duty to internationally cooperate.⁸ Because the two instruments determine, only in principle, the fields of international cooperation, they left the room for States to expand their international cooperation in various fields only if do they fall into the fields provided by DPIL, such as maintenance of international peace and security, the economic, social and cultural development, as well as science and technology.

In accordance with the two instruments, PUOS surely falls into the international cooperative fields, as the activities in PUOS entails the maintenance of international peace and security and the promotion of the economic, social and cultural development which directly influences the general welfare of nations and peoples. Therefore, there are policies behind the two instruments that require all States to carry out international cooperation in PUOS.

6 Abbr. for “Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations”.

7 UN Charter, article 1(3).

8 States have the duty to cooperate with one another, irrespective of the differences in their political, economic and social systems, in the various, in the various fields of international relations, in order to maintain international peace and security and to promote international economic stability and progress, the general welfare of nations and international cooperation free from discrimination based on such differences. To this end: (a) States shall cooperate with other states in the maintenance of international peace and security; ...States should cooperate in the economic, social and cultural fields as well as in the field of science and technology and for promotion of international cultural and educational progress. States should cooperate in the promotion of economic growth throughout the world, especially that of the developing countries. [A/RES/2625 \(XXV\)](#) DPIL, Principle 4.

I.II. GA Resolutions on International Cooperation in PUOS: Law behind Policy

GA is a UN political body where international policies on the major questions relevant to both the political aspect and the legal aspect are discussed and made, and these policies are usually issued in the form of a GA resolution. There are many GA resolutions on PUOS, and over tens of them have been titled “International cooperation in the peaceful uses of outer space”. So it is impossible for the present paper to study all of them, and research will be centered on a few of them which represent the landmark of the evolution from ICPPUOS to ICLPUOS.

I.II.I. A/RES/1348 (XIII)

The year of 1958 saw the beginning of the formation of ICPPUOS. The landmark is the adoption of A/RES/1348 (XIII). The resolution came out against the background that in 1950s, with the development of the exploration and use of outer space,⁹ the success of scientific cooperative program in the exploration of outer space and the desire to promote energetically the fullest exploration and use of outer space for the benefit of mankind had been noted by the international community.¹⁰

As for international cooperation in PUOS, the term first appeared as early as in A/RES/1348 (XIII), under the title of *Question of the Peaceful Use of Outer Space*.¹¹ The nature of the resolution is not a legal one but that of policy. So it is the first international policy document on international cooperation in PUOS. The resolution recognized the great importance of international cooperation in the study and utilization of outer space for peaceful purposes, considering that such cooperation will promote mutual understanding and strengthening of friendly relations among peoples, and believing that the development of programs of international and scientific cooperation in PUOS should be vigorously pursued.¹² Such recognition and consideration have established the conception of the implication and status of international cooperation in PUOS. So it is agreed that States will continue and expand this type of cooperation.¹³

The resolution is very important as it for the first time elaborates the following three points of ICPPUOS:

- (a) The establishment of an ad hoc Committee on PUOS. This decision gives the foundation of the establishment of COPUOS, a specialized agency. Because it is urgent to obtain the fullest information on the many problems relating to PUOS before recommending specific programs of international cooperation in PUOS, the work of COPUOS is to report: (i) the activities and resources of UN and its bodies and other international bodies relating

9 The launch into outer space of the first human-made earth satellite, Sputnik I, on 4 October 1957, thus opened the way for space exploration.

10 A/RES/1348 (XIII), paras.6, 12.

11 A/RES/1348 (XIII), 792nd plenary meeting, 13 December 1958.

12 Ibid, paras.7, 8, 9.

13 Ibid, para.6.

- to PUOS; (ii) the area of international cooperation and programs in PUOS; (iii) the future organizational arrangement to facilitate international cooperation; (iv) the nature of legal problems which may arise in the carrying out of programs to explore outer space.
- (b) The guidelines on three aspects of international cooperation in PUOS as priority: (i) continuation on a permanent basis of the outer space research; (ii) organization of the mutual exchange and dissemination of information on outer space research; (iii) co-ordination of national research program for study outer space, and the rendering of all possible assistance and help towards their realization.¹⁴
- (c) The general policies made by UN: (i) to encourage the fullest international cooperation for PUOS; (ii) to render assistance and help to any international cooperation programs in PUOS only if they are to the benefit of States irrespective of the state of their economic or scientific development; (iii) to put international cooperation within the framework of UN.¹⁵ This is the original expression that UN is the focal point of coordination of international cooperation in PUOS.

The resolution acts as not only the model of a series of GA resolutions on international cooperation in PUOS, such as A/RES/1721(XVI) and A/RES/1802 (XVII), but also the policy source of international cooperation in PUOS and the provisions of Outer Space Legal Principles Declaration (hereinafter OSD),¹⁶ which is regarded as the first ISL instrument as it is titled “Legal Principle”, and which provides the rights and duties for States in participating in the activities of exploration and use of outer space. The instrument actually provides the basis for OST, the first ISL treaty. OSD is a transition instrument from international policy to international law. This is the first stage of evolution from policy to law of international cooperation in PUOS.

I.II.II. A/RES/1721(XVI)

A/RES/1721(XVI) marks the appearance of the legal principles. The resolution is important for three points.

First, the most important influence of A/RES/1721(XVI) on the formation of ICLPUOS is that two legal guidelines are affirmed. After recognizing the urgent need of strengthening international cooperation in PUOS, GA commends two principles to States as their guidelines in the exploration and use of outer space. One principle is that international law, including UN Charter, applies to outer space and celestial bodies. Another principle is that outer space and celestial bodies are free for the exploration and use by all States in conformity with international law and are not subject to national appropriation. For the first time, the exploration and use of outer space has been brought into international law,

14 Ibid, para.13, (b).

15 Ibid, para.13, (c).

16 Abbr. for “Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space”.

and the outer space and celestial bodies have been prohibited to be appropriated by any States.¹⁷ The evolution of international cooperation in outer space takes a great step from policy to law. The legal nature of the resolution is confirmed by the later “Declaration on the Fiftieth Anniversary of Human Space Flight and the Fiftieth Anniversary of the Committee on the Peaceful Uses of Outer Space” (hereinafter HSFD) in 2012, with the wordings that “... resolution 1721 A (XVI), in which the first legal principles were commended to States for their guidance in space activities, ...”¹⁸

Second, the resolution for the first time recognizes the status of UN as a focal point for international cooperation in the PUOS. And this lays a good foundation for UN to become the centre of coordination in this field.¹⁹

Third, the resolution places the concrete requests of international cooperation in PUOS on the three actors who are concerned with in this field. These three actors are States, especially States launching objects into orbit or beyond, COPUOS, the UN specialized agencies, who works on the coordination of international cooperation in PUOS, and UN Secretary-General who is responsible for the work affairs in this field.

States launching objects into orbit or beyond are required to have cooperation with COPUOS in furnishing information through the Secretary-General for the registration of launchings. This requirement later becomes the duty for Launching States to register their launchings, which has been stipulated in REG.

COPUOS is required to cooperate with the Secretary-General and make the full use of the functions and resources of the Secretary. The mandates of COPUOS are: (i) to maintain close contact with governmental and non-governmental organizations concerned with outer space matters; (ii) to provide for the exchange of such information relating to outer space activities as Governments may supply on a voluntary basis, supplementing but not duplicating existing technical and scientific exchanges; (iii) to assist in the study of measures for the promotion of international cooperation in outer space activities;²⁰ (iv) to report to GA on the arrangements undertaken for the performance of those functions and on such developments relating to PUOS as it considers significant.²¹

The Secretary-General is required to maintain a public registry of the information furnished by States launching object into orbit or beyond.

Thus forms the mechanism of international cooperation in PUOS of UN as a focal point. The mechanism requires States to cooperate with COPUOS, COPUOS to cooperate with the Secretary-General with the functions and resources of UN.

17 A/RES/1721(XVI), A, paras.3-5.

18 A/RES/66/71, annex, HSFD, para.7.

19 A/RES/1721(XVI), B, para.1.

20 Ibid, B, paras.3-7.

21 Ibid, B, para.8

I.II.III. A/RES/1802 (XVII)

A/RES/1802 (XVII) is adopted against the background of the urgent need of international cooperation in developing ISL. It is the first resolution which urged on States to carry out international cooperation in developing ISL. The resolution specially stresses the necessity of the progressive development of international law pertaining to: (i) the further elaboration of basic legal principles governing the activities of States in the exploration and use of outer space; (ii) liability for space vehicle accidents; (iii) assistance to and return of astronauts and space vehicles; (iv) other legal problems.²²

The resolution makes clear the key tasks of international cooperation in developing ISL. In order to govern the activities of States in the exploration and use of outer space, that is, all activities of such kinds should be carried out in conformity with international law including UN Charter and in the interest of friendly relations among nations, it is necessary for international community to make new law, because never before were there any laws pertaining to such new activities of mankind with the development of space flight science and technology.

COPUOS is required to work urgently on the further elaboration of basic legal principles governing the activities of States in the exploration and use of outer space and on liability for space vehicle accidents and on assistance to and return of astronauts and space vehicles and on other legal problems.²³ For this goal, the resolution calls upon States to cooperate in the further development of ISL.²⁴ The law behind this policy is that States should take responsibility for international cooperation in furthering the development of ISL.

The finish of three key tasks, namely, the elaboration of basic legal principles, the stipulation of liability for space vehicle accidents and the establishment of responsibility of assistance to and return of astronauts and space vehicles, resulted in three important ISL treaties. They are OST,²⁵ ARRA²⁶ and LIAD.²⁷ OST is viewed as the ISL framework while ARRA and LIAB are viewed as the two of four main treaties governing the legal relation of States in the specific field of space activities. International cooperation in promoting the development of ISL was then taking its first step. States with different legal culture and different capabilities in space activities made a joint effort to make proposals to be considered by COPUOS.²⁸

22 A/RES/1802 (XVII), para.3.

23 A/RES/1802 (XVII), I, para.3.

24 Ibid, I, para.2.

25 It is carried in the annex of A/RES/2222(XXI).

26 It is carried in the annex of A/RES/2345(XXII).

27 It is carried in the annex of A/RES/2777(XXVI).

28 USSR made proposals on the draft declaration of the basic principles governing the activities of States pertaining to the exploration and use of outer space and the draft international agreement on the rescue of astronauts and spaceships making emergency landings. USA made the draft proposals on assistance to and return of space vehicles and personnel and liability for space vehicle accidents, and the draft decla-

In the resolution, the benefit of international cooperation in PUOS is first connected with the economic and social progress of the developing countries.²⁹ As the economic and social progress of the developing countries has been envisaged in the UN Development Decade program and set out to be under way. Thus the economic and social progress of the developing countries has been first taken into consideration in the international cooperation in PUOS. This consideration laid the foundation of A/RES/51/122.

I.II.IV. A/RES/2222 (XXI)

A/RES/2222 (XXI) not only is a landmark of the development of ISL, but also symbolizes the appearance of ICLPUOS, because it carries OST, the first ISL treaty, in its annexed, and in the treaty contains the first provision of ICLPUOS. Though there are only thirteen substantive provisions in the treaty, there are four provisions relevant to international cooperation in PUOS. This shows the important legal status of ICLPUOS. The importance of international cooperation in PUOS and the necessity of the rule of law in this field are well expressed by the resolution. In the resolution, one can read the desire of the international community to the wide international cooperation in the scientific and legal aspects of PUOS and the belief that such cooperation will contribute to the development of mutual understanding and to strengthening the friendly relations between States and peoples.

Article 9 of OST provides that in the exploration and use of outer space, including the Moon and other celestial bodies, States Parties to the Treaty shall be guided by the principle of cooperation and mutual assistance and shall conduct all their activities in outer space, with due regard to the corresponding interests of all other States Parties to the Treaty. The provision contains the principle of international cooperation in the exploration and use of outer space and gives the principle the legal status as a guiding principle for States who conduct their space activities. The implication of the principle is that States should cooperate and assist mutually, and take due regard to the corresponding interests of all other States while conducting their activities in outer space.³⁰

The principle of international cooperation in PUOS imposes on States the following two duties:

- (i) The duty of precaution. It is the duty of States to pursue studies of outer space and conduct exploration of them so as to avoid their harmful contamination and adverse changes in the environment of the Earth resulting

ration of principles relating to the exploration and use of outer space. UAR made proposal on the draft code for international cooperation in the peaceful uses of outer space. UK made proposal on the draft declaration of basic principles governing the activities of States pertaining to the exploration and use of outer space. A/RES/1802 (XVII), I, para.4.

²⁹ A/RES/1802 (XVII), para.4.

³⁰ The expression "take due regard to the corresponding interests of all other States while conducting their activities in outer space" can be viewed as the legal source of the principle of reciprocity.

from the introduction of extraterrestrial matter, and to adopt appropriate measures for this purpose.

- (ii) The duty of international consultations: If a State has reason to believe that an activity or experiment planned by it or its nationals in outer space would cause potentially harmful interference with activities of other States in the peaceful exploration and use of outer space, it is the duty of the State to undertake appropriate international consultations before proceeding with any such activity or experiment.

Article 12 of OST poses further requirement for States that all stations, installations, equipment and space vehicles on the Moon and other celestial bodies shall be open to representatives of other States on a basis of reciprocity. Such representatives shall give reasonable advance notice of a projected visit, in order that appropriate consultations may be held and that maximum precautions may be taken to assure safety and to avoid interference with normal operations in the facility to be visited. This provision contains the principle of reciprocity that States have the right to share stations, installations, equipment and space vehicles on the Moon and other celestial bodies on the basis of reciprocity and mutual benefit.

As OST establishes the ISL fundamental principles, the principle of international cooperation in PUOS is certainly one of these fundamental principles to which all States should adhere in the performance of space activities.

The provisions of the articles in OST not only leave room for developing the branches of IST, for example, the formulation of ARRA, REG and LIAB, but also for developing the new ICPPUOS, for example, the formulation of Outer Space International Cooperation Declaration (hereinafter OSICD).³¹

I.II.V. A/RES/51/122

In 1990's, the evolution of ICPPUOS came to its stage that more policies and guidelines thereabout were elaborated, and meanwhile the problems needed to be solved on a priority basis were made clear. The GA resolutions of this stage repeatedly emphasize the importance of international cooperation in developing the rule of law and in promoting PUOS. They repeats the GA's conviction, recognition and consideration of the established policies and guidelines, also the GA's concern about the urgent problems emerging in space activities, and as well as emphasizes and recommends the agenda items for COPUOS to consider in promoting international cooperation in PUOS.

A resolution of this time, that is, A/RES/51/122, should be particularly mentioned as it symbolizes the great substantive leap from ICPPUOS towards ICLPUOS. Its importance lies in that it carries in its annex the achievement of the evolution from ICPPUOS to ICLPUOS.

31 Abbr. for "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".

The resolution declares the adoption of OSICD against the background that OST has already come into effect for 30 years, that the progress has been achieved in the further development of peaceful space exploration and application as well as in various national and cooperative space projects, which contribute to international cooperation, and that the importance needs to be attached to the further international cooperation in space activities.³²

With the growing significance of international cooperation in PUOS among States and between States and international organizations and the experience gained in international cooperative ventures, the condition for formulating the principles of international cooperation in PUOS became mature. It is necessary and significant to further strengthen international cooperation in order to reach broad and efficient collaboration in PUOS for the mutual benefit and interest of all parties involved.

The resolution expresses the desire of the international community to facilitate 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.³³

Because of the extraordinary environment of outer space, international cooperation is so indispensable that the principle of international cooperation in PUOS becomes the one of fundamental principles governing the space activities of all States. In addition, norms, guidelines and requirements for its application should derive from this fundamental principle. Therefore, the first substantive progress in the evolution from ICPPUOS to ICLPUOS is the adoption of the text of OSICD.

OSICD elaborates the following principles governing the activities of international cooperation in PUOS of all States:

- (a) The principle in accordance with international law. International cooperation in space activities should be conducted in accordance with the provisions of international law, including UN Charter and OST.³⁴ It indicates that States should adhere to the principle of rule of law when participating in international cooperation in space activities, particularly as widest as possible to international treaties that promote PUOS.
- (b) The principle for the benefit and in the interest of mankind. Any international cooperation in space activities should 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. This principle indicates the purpose and the aims of international cooperation in space activities.
- (c) The principle of free determination on an equitable and mutually acceptable basis. States are free to determine all aspects of their participation in international cooperation in space activities on an equitable and mutually

32 A/RES/51/123, para.7.

33 A/RES/51/122, para.9.

34 OSICD, para.1, in A/RES/51/122, annex.

acceptable basis. Contractual terms in such cooperative ventures should be fair and reasonable and they should be in full compliance with the legitimate rights and interests of the parties concerned, for example, with intellectual property rights.³⁵

- (d) The principle of promoting and fostering international cooperation. All States, particularly those with relevant space capabilities and with programs for the exploration and use of outer space, should contribute to promoting and fostering international cooperation on an equitable and mutually acceptable basis.³⁶
- (e) The principle in the effective and appropriate mode of multilevel of international cooperation. International cooperation in space activities 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.³⁷
- (f) The principle of taking into particular account the needs of developing countries. In carrying out international cooperation in space activities, particular account should be taken of the needs of developing countries.³⁸ The requirements are: (i) In promoting and fostering international cooperation, particular attention should be given to the benefit and the interests of developing countries;³⁹ (ii) the need of developing countries for technical assistance and rational and efficient allocation of financial and technical resources.⁴⁰

There is an outstanding principle that is characteristics of OSICD. That is the principle of free determination on an equitable and mutually acceptable basis, from which actually derives two other principles.

One is the principle of equality, which means all States participating in international cooperation in space activities have an equal right to conduct international cooperation without discrimination of any kind. This principle contains the norm of non-discrimination that any States, irrespective of the degree of their economic, social or scientific and technological development, participate in international cooperation in PUOS on the basis of equality. Such participation shall be based in each case on equitable and mutually acceptable terms.

Another is the principle of free determination, which means international cooperation in PUOS should be conducted on the voluntary basis. Any States have the right not to be forced to participate in any activities of international cooperation in the exploration and use of outer space, and to determine to adopt what ways and modes to conduct such cooperation.

35 OSICD, para.2, in A/RES/51/122, annex.

36 Ibid, para.3.

37 Ibid, para.4.

38 Ibid, para.1.

39 Ibid, para.3

40 Ibid, para.5.

OSICD stipulates the goals that international cooperation in space activities should aim at while considering the particular the need of developing countries for technical assistance and allocation of financial and technical resources. The policies to achieve the goals are: (i) promoting the development of space science and technology and of its applications; (ii) fostering the development of relevant and appropriate space capabilities in interested States; (iii) facilitating the exchange of expertise and technology among States on a mutually acceptable basis.⁴¹

These principles implies the duty and the right of States participating in international cooperation in space activities, as every paragraph concerning international cooperation in space activities use the word “shall ” or “should”. Besides the duty that implied in the above mentioned principles, OSICD also requires States to implement the following duties:

- (i) 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.⁴²
- (ii) COPUOS 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.⁴³
- (iii) All States should be encouraged to contribute to the UN Program 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.⁴⁴

The importance of OSICD lies in that it establishes the early principles of international cooperation in space activities, and it makes clear the purposes and the aims of international cooperation in PUOS. Also, it clearly requires for the first time that the need of developing countries for space technology and its applications should be taken into account in international cooperation in PUOS.

I.II.VI. A/RES/66/71

In the new millennium, among the GA resolutions on international cooperation in PUOS, special mention should be given to A/RES/66/71, which carries HSFD in its annex and elaborates the new guidelines of ICPPUOS.

The resolution recognizes that the extraordinary achievements have been made over the past fifty years in human space flight and space exploration for peaceful purposes. It emphasizes that the significant progress has been made in the development of space science and technology and its applications that has enabled humankind to explore the universe. It notes that the extraordinary

41 Ibid, para.5.

42 Ibid, para.6.

43 Ibid, para.7.

44 Ibid, para.8.

achievements made in space exploration efforts, including deepening the understanding of the planetary system and the Sun and the Earth itself, in the use of space science and technology for the benefit of all humankind and in the development of the international legal regime governing space activities. Against this background, a new term “human space flight and space exploration for peaceful purposes” is used to describe the expansion of space activities of mankind.⁴⁵ Over the first decade of the new millennium, international cooperation in promoting the exploration and use of outer space took a great step towards the technology of outer space. A good example is that humanity has maintained a multinational permanent human presence in outer space aboard the International Space Station.

But there still exists the unsolved problems, such as the possibility of an arms race in outer space and the issue of the space debris mitigation, and the newly-emerging challenges, such as the problem of collision of space objects, including those with nuclear power sources, with space debris, and the devastating impact of disasters; which have produced problems of legal aspects.

As a result, the resolution, besides emphasizing that the purpose of such international cooperation is to meet emerging new challenges, particularly for developing countries, reaffirms the importance of international cooperation in developing the rule of law with traditional wordings used by the previous resolutions on this agenda.⁴⁶

The use of space technology is considered as one of a helpful means of implementing the UN Millennium Declaration (hereinafter UNMD). The use of space science and technology and its applications in areas such as telehealth, tele-education, disaster management, environment protection and other Earth observation application are convinced to contribute to achieving the objectives of millennium that address various aspects of economic, social and culture development, particular poverty eradication. Particularly it is desirable to enhance international coordination and cooperation at the global level in disaster management and emergency response through greater access to and use of space-based services for all countries and facilitating capacity-building and institutional strengthening for disaster management, in particular in developing countries.

Although the progress has been achieved in the further development of peaceful space exploration and applications, as well as in various national and cooperative space projects, which contributes to international cooperation, these new needs calls for States to focus on the importance of further developing the legal framework to strengthen international cooperation in the field of the development of peaceful space exploration and applications.

AS for the problems of collision of space objects, including those with nuclear power sources, with space debris, and other aspects of space debris, States are required to pay more attention to them and the guidelines given by the resolution are: (i) continuation of national research on this question; (ii) the develop-

45 A/RES/66/71, para.1.

46 Ibid, para.4.

ment of improved technology for the monitoring of space debris; (iii) the compilation and dissemination of data on space debris. The resolution imposes the obligation on States that to the extent possible, information thereon should be provided to the Scientific and Technical Subcommittee. And GA agrees that international cooperation is needed to expand appropriate and affordable strategies to minimize the impact of space debris on future space missions.⁴⁷

The role of regional and interregional cooperation in space activities is emphasized and considered as essential to strengthen the peaceful uses of outer space, assist States in the development of their space capabilities and contribute to the achievement of the goals of UNMD and to that end requests relevant regional organizations to offer the assistance necessary so that countries can carry out recommendations of regional conferences. The resolution recognized that in this regard, the important role played by conferences and other mechanisms in strengthening regional and international cooperation among States.⁴⁸ COPUOS is requested to consider ways to promote regional and interregional cooperation while considering ways and means of maintaining outer space for peaceful purposes.⁴⁹

The resolution recognizes the indication in “The Space Millennium: Vienna Declaration on Space and Human Development” (hereinafter SMD) that space science and technology and its applications make important to economic, social and cultural development and welfare, and emphasizes the need to increase the benefits of space technology and its applications and to contribute to an orderly growth of space activities favorable to sustained economic growth and sustainable development in all countries, including mitigation of the consequences of disasters, in particular in developing countries.⁵⁰

Therefore, the requirement is that the benefits of space technology and its applications should continue to be brought to the attention, in particular, of the major UN conferences and summits for economic, social and cultural development and related fields and that the use of space technology should be promoted towards achieving the objectives of those conferences and summits and for implementing UNMD.⁵¹

The importance of A/RES/66/71 lies in its adoption of HSFD which recommends new ICPPUOS on human space flight. HSFD focuses on the two themes as its title shows: one theme is about the development of human space flight and another is about COPUOS.

HSFD raises the status of COPUOS in international cooperation in PUOS by recognizing that COPUOS, assisted by its Secretariat, the Office for Outer Space Affairs (hereinafter OOSA), has for the past fifty years served as a unique

47 Ibid, para.24.

48 These regional cooperation mechanisms include the African Leadership Conference on Space Science and Technology for Sustainable Development, the Asia-Pacific Regional Space Agency Forum, the Asia-Pacific Space Cooperation Organization and the Space Conference of the Americas.

49 A/RES/66/71, paras.29-30, 32.

50 Ibid, paras.33, 35.

51 Ibid, para.36.

platform at the global level for international cooperation in space activities and that COPUOS and its subsidiary bodies stand at the forefront in bringing the world together in using space science and technology to preserve the Earth and the space environment and ensure the future of human civilization.⁵²

The status of COPUOS acting as a unique platform at the global level for international cooperation in space activities requests the entities of the UN system, other international organizations and the Secretary-General to continue and, where appropriate, to enhance their cooperation with COPUOS and to provide it with reports on the issues dealt with in the work of COPUOS and its subsidiary bodies, and to address the issues covered by the panel discussions held in conjunction with sessions of GA.⁵³ It is apparent that international cooperation with COPUOS becomes a policy to be implemented by all States.

The role of COPUOS is needed to have closer coordination with other inter-governmental bodies involved in the UN global development agenda, including with respect to the major UN conferences and summits for economic, social and cultural development.

After recalling the marked events of human space flight over past fifty years, HSFD acknowledges that significant changes have occurred in the structure and content of the space endeavor, as reflected in the emergence of new technologies and the increasing number of actors at all levels.

With the indispensable tools provided by space science and technology and its applications, such as satellite communications, Earth observation systems and satellite navigation technologies, the progress has made in strengthening international cooperation in PUOS by enhancing the capacity of States for economic, social and cultural development and by strengthening the regulatory frameworks and mechanisms.

Also, the great change has taken place in many aspects of human space activities. But this change also has brought about new challenges, among which are the problem of the protection of the space environment because of its fragility and the challenges to the long-term sustainability of space activities, in particular the impact of space debris.

The general guideline elaborated by HSFD is that all States are requested to internationally cooperate in the use of space science and technology and its applications and in developing rule of law in space activities. On one hand, all States should take measures at the national, regional, interregional and global levels to engage in the common efforts to use space science and technology and its applications to preserve planet Earth and its space environment for future generations.⁵⁴ On another hand, all States should recognize the importance of international cooperation in developing the rule of law, including the relevant norms of space law, and of the widest possible adherence to the international treaties that promote PUOS.⁵⁵

52 HSFD, para.9, A/RES/66/71, annex.

53 A/RES/66/71, para.32.

54 HSFD, para.17, A/RES/66/71, annex.

55 Ibid, para.10.

HSFD makes new policies to advocate international cooperation in three aspects. First is in the aspect of space science and technology and its applications, such as satellite communications, Earth observation systems and satellite navigation technologies, as indispensable tools for viable long-term solutions for sustainable development, so as to make more effective contribution to efforts to promote the development of all countries and regions of the world, to improve people's lives, to conserve natural resources and to enhance the preparedness for and mitigation of the consequences of disasters.⁵⁶

Second is in the aspect of the more close examination and study on how advanced space research and exploration systems and technologies could further contribute to meeting challenges, including that of global climate change, and to food security and global health, and endeavor to examine how the outcomes and spin-offs of scientific research in human space flight could increase the benefits, in particular for developing countries.⁵⁷

And third is in the aspect of regional and interregional cooperation in strengthening PUOS, assisting States in the development of their space capabilities and contributing to the achievement of the goals of the UNMD.⁵⁸

II. The Mutual Promotion and Influence of ICPPUOS and ICLPUOS

II.I. The Regularity of the Evolution and the Relation of ICPPUOS and ICLPUOS

From the recall of the evolutionary processes from ICPPUOS to ICLPUOS, we can find that the regularity of this evolution is in the mode of “policy behind law” and “law behind policy”, that is, the provisions of international law, particularly those relating to international cooperation provide legal source of ICPPUOS, and ICPPUOS promotes the development of ICLPUOS, and *vice versa*.

ICPPUOS and ICLPUOS promote and influence mutually with the background of international cooperation in the advancement of space science and technology and its applications. The important influence of ICPPUOS on the development of ICLPUOS is that it pushes forward the formulation of the latter, and the advancement of space science and technology and its applications gives impetus to the formation of ICPPUOS. When a new ICPPUOS proves viable in the practice of States, the policy can be transformed into a new ICLPUOS. Thus, the development of ICPPUOS and ICLPUOS contributes to promoting the advancement of space science and technology and its applications. This regularity shows the relation of ICPPUOS and ICLPUOS is that they promote and influence each other, and together make contribution to the advancement space science and technology and its applications.

⁵⁶ Ibid, para.12.

⁵⁷ Ibid, para.14.

⁵⁸ Ibid, para.15.

Over fifty years, international community has made great progress in international cooperation in PUOS. This results in the advancement of space science and technology and its applications, such as space meteorology and communications, human space flight, global and regional space-based positioning, navigation and timing systems and global navigation satellite systems and their integration into national infrastructure, the International Space Station, UN-SPIDER,⁵⁹ and space science and technology education, etc. The practice lays a good foundation of the formulation of ICPPUOS.

From A/RES/1348 (XIII) in 1950s to R/RES/66/71 in the new millennium, these GA resolutions on international cooperation in PUOS are in reference to ICPPUOS, such as the support of international cooperation programs; the affirmation of the importance of international cooperation in PUOS and the importance of international cooperation in developing the rule of law governing the space activities; the stipulation of the requirements of international cooperation in PUOS on States, international organization and their bodies and agencies; and the emphasis of the aim and purpose of international cooperation in PUOS. They symbolize the formulation of ICPPUOS. Some of the resolutions even establish the principles of legal nature. These resolutions on international cooperation in PUOS make a full preparation for and have important influence on the development of ICLPUOS which forms the indispensable part of ISL.

II.II. The Characteristics of ICLPUOS

ICLPUOS can be viewed as at present consisting of the provisions in the treaties and declarations as follows: (i) principle 6 in OSD; (ii) articles 9-12 in OST; (iii) articles 1-5 in ARRA; (iv) articles 9 and 14-22 in LIAB; (v) article 2 in MOON; (vi) principle 6 in AESIDTB;⁶⁰ (vii) principles 5-13 in RSE;⁶¹ (viii) principles 4-7 in UNPS;⁶² and (ix) all the principles in OSICD.

ICLPUOS has the following characteristics:

- (i) ICLPUOS has not yet been systematically codified as a treaty containing a set of legal principles, rules and norms which can legally bind on States, as other branches of ISL deriving from OST. Though OSICD is viewed as the principles of legal nature, it still remains at the level of declaration which actually is a quasi-law with the nature of policy advocacy.
- (ii) There are different sets of concrete legal norms, guidelines and requirements scattering in the different branches of ISL relevant to different specific fields of the exploration and use of outer space for peaceful purposes. They can only govern the space activities of States in a certain aspects.
- (iii) The importance and necessity of international cooperation in PUOS is repeatedly affirmed by various legal instruments of ISL. This contributes to

59 Abbr. for "The United Nations Platform for Space-based Information for Disaster Management and Emergency Response".

60 Abbr. for "Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting".

61 Abbr. for "Principles Relating to Remote Sensing of the Earth from Outer Space".

62 Abbr. for "Principles Relevant to the Use of Nuclear Power Sources In Outer Space".

strengthening international cooperation among States and between States and international organizations, and thus promotes the development of ICLPUOS.

- (iv) With the expansion of international cooperation in PUOS, more and more legal norms, guidelines and requirements will be needed and formulated as such. Therefore, it is necessary to speed up the formulation of a treaty on international cooperation in PUOS as a branch of ISL on the basis of existing declarations of legal nature and ICPPUOS.
- (v) The evolution of ICLPUOS depends on the development of ICPPUOS, as well as on the practice of international cooperation in PUOS among States and between States and international organizations, and the experience gained by them in international cooperative ventures.

II.III. The Future International Cooperation in PUOS

In the future, with the advancement of space science and technology and its applications, there probably appear more new problems and challenges that need international cooperation in solving them. Now, the urgent need for international cooperation is still in the following aspects:

- (i) Promotion of the development of rule of law in space activities. States are expected to conduct international cooperation in the contribution to developing rule of law in space activities. In this aspect, first, they are expected to be cooperative in formulating international treaties governing their activities in the exploration and use of outer space. Second, those States that have not yet become parties to the treaties governing the uses of outer space are expected to give consideration to ratifying or acceding to those treaties in accordance with their domestic law, as well as incorporating them in their national legislation. And third, they are expected to conduct their space activities in accordance with international law.
- (ii) Protection of the outer space environment. Because of the fragility of the outer space environment and the limitation of the outer space resources, international cooperation in protecting the outer space environment becomes more and more urgent and important. In this respect, international cooperation is particularly needed to expand appropriate and affordable strategies to minimize the impact of space debris on future space missions and States are expected to implement, through relevant national mechanisms, the Space Debris Mitigation Guidelines of COPUOS.
- (iii) The Prevention of an arms race in outer space. Outer space can only be explored and used for peaceful purposes, and the prevention of an arms race in outer space is an essential condition under which international cooperation in space activities can be conducted among States and between States and international organizations. In this respect, on one hand, all States, in particular those with major space capabilities are required to contribute actively to the goal of preventing an arms race in outer space. And on another hand, all States are required to adhere to the prevention of an arms race as an essential condition for the promotion of international cooperation in PUOS.

II.IV. The Making of a Treaty on International Cooperation in PUOS

There lacks convention or agreement on international cooperation in PUOS at global level like ARRA, LIAB, REG and MOON, which have the provisions of OST as their legal source. However, there never lacks sources and resources capable of supporting and underlying the formulation of a convention or agreement on international cooperation in PUOS.

First, articles 9 and 12 of OST and other existing treaties governing the activities of States in the exploration and use of outer space can serve as the legal source of the formulation of ICLPUOS.

Second, the formulation of a global convention or agreement on international cooperation in PUOS possesses a lot of resources of ICPPUOS. There are plentiful GA resolutions on international cooperation in PUOS, which elaborates and establishes the guidelines at the level of policy. Some of the guidelines have been incorporated in declarations representing the political will of all States, for example, HSF and SMD. And some of the guidelines have been given the status of principles of legal nature, for example, OSD and OSICD which can serve as the basis of draft text of convention or agreement on international cooperation.

Third, there are a lot of bilateral and multilateral agreements on international cooperation in PUOS made by States, and global agreements on international cooperation in PUOS formulated by international institutions, for example, "Agreement on Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes (INTERCOSMOS)". These conventions or agreements can serve as the model of a global convention or agreement on international cooperation in PUOS, and the practice of States and international institutions in formulating them can supply good experiences for the making of a global convention or agreement on international cooperation in PUOS.

Therefore, it can be concluded that the conditions of the formulation of a global convention or agreement on international cooperation in PUOS will become more and more suitable and appropriate.

III. China's National Policies on International Cooperation in PUOS

China's White Paper on Space Activities (hereinafter White Paper) elaborates in detail the national policies on China's space activities, therein also elaborates in detail China's national policies on international cooperation in PUOS. There are three White Papers issued by the Chinese government separately in 2000, 2006 and 2011 and they together elaborate China's national policies on international cooperation in PUOS. The content of China's national policies on international cooperation in PUOS is composed of fundamental principles, fundamental policies and priority cooperation areas.

III.I. White Paper in 2000

The importance of White Paper in 2000 lies in that it serves as the basic model, framework and foundation of other two White Papers. White Paper in 2000

elaborates for the first time the Chinese government's attitude to and position on international cooperation in space activities and establishes the principles and policies in this field.

In its part IV which is titled "International Cooperation", White Paper in 2000 first expresses China's fundamental attitude towards international space cooperation by wording that China persistently supports activities involving PUOS, and maintains that international space cooperation shall be promoted and strengthened on the basis of equality and mutual benefit, mutual complementarity and common development.⁶³ In addition, the Chinese government holds that international space cooperation should follow the fundamental principles listed in OSICD.⁶⁴

III.I.I. The Fundamental Principles

White Paper in 2000 establishes the fundamental principles guiding the international space cooperation of the Chinese government. These principles are termed as guiding principles. China adheres to the following guiding principles while carrying out international space cooperation:

- (i) The principle of the common interest of all mankind. The aim of international space cooperation is to peacefully develop and use space resources for the benefit of all mankind.⁶⁵
- (ii) The principle of equality and mutual benefit, mutual complementarity and common development, and the generally accepted principles of international law. International space cooperation should be carried out on the basis of equality and mutual benefit, mutual complementarity and common development, and the generally accepted principles of international law.⁶⁶ The principle actually contains three norms for guiding international space cooperation. They are the principle of equality and mutual benefit; the principle of mutual complementarity and common development; and the principle of adherence to the generally accepted principles of international law. The activities in this field are to meet these norms which serve as the essential condition of the Chinese government to cooperate with other States.
- (iii) The principle of increasing the capability of space development of all countries, particularly the developing countries. The priority aim of international space cooperation is to simultaneously increase the capability of space development of all countries, particularly the developing countries, and enable all countries to enjoy the benefits of space technology.⁶⁷

63 China's White Paper on Space Activities in 2000, issued by the State Council Information Office of the People's Republic of China, Date: 2003-12-15, IV, *International Cooperation*, para.1. available at: <www.cnsa.gov.cn/n615709/n620681/n771967/69198.html>, visit date: 18 June 2013-6-18.

64 Ibid, para.2.

65 Ibid, Guiding Principles.

66 Ibid.

67 Ibid.

- (iv) The principle of protecting the space environment and space resources. Necessary measures should be adopted to protect the space environment and space resources in the course of international space cooperation.⁶⁸

III.I.II. The Fundamental Policies

White Paper in 2000 elaborates the Chinese government's attitude towards the function of UN and its agency, COPUOS and its Secretariat OOSA in the field of international cooperation in PUOS. Thereon the Chinese government holds that the function of OOSA should be consolidated and the UN outer space application programs should be backed up.⁶⁹ By this way, the Chinese government recognizes the status of UN and COPUOS acting as, respectively, a focal point and a unique platform of global international cooperation in PUOS.

The fundamental policies adopted by the Chinese government in developing international space cooperation include: (i) Persisting in the independence and self-reliance policy, carrying out active and pragmatic international space cooperation to meet the needs of the national modernization drive and the demands of the domestic and international markets for space science and technology; (ii) Supporting multilateral international cooperation in PUOS within the UN framework; (iii) Attaching importance to the Asian-Pacific regional space cooperation and supporting space cooperation in other regions of the world; (iv) Attaching importance to space cooperation with both developed and developing countries; (v) Enhancing and supporting research institutions, industrial enterprises and universities and colleges to develop international space exchanges and cooperation in different forms and at different levels under the guidance of relevant state policies, laws and regulations.⁷⁰

III.II. White Paper in 2006

With the good foundation laid by White Paper in 2000, in its part v titled with "International Exchanges and Cooperation", White Paper in 2006 does not repeat those guiding principles which White Paper in 2000 has already clearly elaborated. The outstanding point of White Paper in 2006 is the further elaboration of the Chinese government's position on the legal status of outer space as a natural resource and the aim and purpose of the activities of exploration and use of outer space.

To this point, the Chinese government holds that outer space is the common wealth of all mankind, and each and every country in the world enjoys equal rights to freely explore, develop and utilize outer space and celestial bodies; and that all countries' space activities should be beneficial to the economic development, social progress of nations, to security, subsistence and development of mankind, and to friendly cooperation between people of different countries.⁷¹

68 Ibid.

69 Ibid.

70 Ibid, Fundamental Policies.

71 China's White Paper on Space Activities in 2006, issued by issued by the State Council Information Office of the People's Republic of China, Date: 2006-10-12, V,

White Paper in 2006 reaffirms that international space cooperation should adhere to the fundamental principles stated in OSICD, and reaffirms the principle that international space exchanges and cooperation should be strengthened on the basis of equality and mutual benefit, peaceful utilization and common development.

According to White Paper in 2006, the Chinese government adopts the following fundamental policies relating to developing international space exchanges and cooperation: (i) Adhering to the principle of independence and taking the initiative in carrying out active and practical international cooperation in consideration of the overall, rational utilization of domestic and international markets and resources to meet the needs of the national modernization drive; (ii) Supporting activities regarding PUOS within the UN framework and all inter-governmental activities for promoting the development of space technology, space application and space science as well as those conducted between non-governmental space organizations; (iii) Attaching importance to space cooperation in the Asia-Pacific region, and supporting other regional space cooperation around the world; (iv) Reinforcing space cooperation with developing countries, and valuing space cooperation with developed countries; (v) Encouraging and endorsing the efforts of domestic scientific research institutes, industrial enterprises, institutions of higher learning, as well as social organizations to develop international space exchanges and cooperation in different forms and at different levels under the guidance of relevant state policies, laws and regulations.⁷²

In comparison with White Paper in 2000, there are some differences in White Paper in 2006. As the guiding nature of White Paper is more and more outstanding, White Paper in 2006 adjusts the fundamental policies of China's international space cooperation to meet its role in guiding the activities and programs in this field in the future five years. In White Paper in 2006, there is an adjustment in its concrete fundamental policies with no change in the general policies with the nature of principle.

III.III. White Paper in 2011

In White Paper in 2011, we can find that China's fundamental attitude to and guiding principles of international cooperation in PUOS remain unchanged. The fundamental policies are reaffirmed in its part v under the title of "International Exchanges and Cooperation". However, there appears a certain fundamental policy relating to developing international space exchanges and cooperation. The newly-appearing fundamental policy is expressed as "appropriately using both domestic and foreign markets and both types of resources, and actively participating in practical international space cooperation."⁷³ This

International Exchanges and Cooperation, available at: <www.china.org.cn/english/2006/Oct/183588.htm>, visit date: 18 June 2013-6-18.

72 Ibid. Fundamental Policies.

73 China's White Paper on Space Activities in 2011, issued by issued by the State Council Information Office of the People's Republic of China, Date: 2011-12-30, V, *International Exchanges and Cooperation*, Fundamental Policies. available at:

shows that the Chinese government begins to attach importance to the mode of the market-oriented operation in international space cooperation.

Also, White Paper in 2011 defines the international space cooperation areas as its counterparts, but with a little change in wording. It does not use the word “priority” but the word “key” to describe the importance of these cooperation areas. In the future five years, that is, from 2012 to 2016 China’s international space exchanges and cooperation will mainly focus on the following key areas:

- (i) In the space scientific study and research, the key points include scientific research on space astronomy, space physics, micro-gravity science, space life science, deep-space exploration, space debris and other areas.⁷⁴
- (ii) In space scientific and technological applications, the key points include applications of Earth observation satellites in environment and disaster monitoring, global climate change monitoring and forecasting, marine monitoring and other areas; and applications of communications satellites in broadcasting and television, long-distance education, telemedicine and other areas; and applied technological cooperation, research and development of terminal equipment, reinforced facility building, specific industrial services and other areas of satellite navigation systems.⁷⁵
- (iii) In human space flight, the key points include technological cooperation on a space lab and a space station in China’s human space flight program; space science research and experiments and other areas.⁷⁶
- (iv) In commercial satellite, the key points include commercial satellite launch service, import and export of whole satellites, satellite parts and components, import and export of ground test equipment, and building and service of satellite ground TT&C and satellite application facilities as well as related services, etc.⁷⁷ The key cooperation areas also include space TT&C cooperation, support, and personnel exchanges and training in the field of space as well.⁷⁸

From these key cooperation areas, we can find out that China’s international space cooperation policies tends to more and more practically and concretely focus on those areas at the high level of space science and technology and its applications which are in consistence with those requested by ICPPUOS.

III.IV. The Characteristics of China’s National Policies of International Cooperation in PUOS

It can be concluded that China’s national policies on international cooperation in PUOS have the following characteristics:

<www.chinadaily.com.cn/cndy/2011-12/30/content_14354558.htm>, visit date: 18 June 2013-6-18.

74 Ibid, Key Cooperation Areas.

75 Ibid.

76 Ibid.

77 Ibid.

78 Ibid.

(i) Adhere to international law, particularly the ISL treaties. In 1983 and 1988, China acceded to OST, ARRA, LIAB and REG. These international treaties furnish a general legal basis and provide a legal framework for China to conduct its international space cooperation, both bilaterally and multilaterally.

China has strictly performed its responsibilities and obligations. In its bilateral agreements, protocols or memorandums with inter-governments and inter-agencies, the importance of adherence to international law has been repeatedly emphasized and the basic principles of international law and the ISL fundamental principles, for example, the principle of the common interest of mankind, the principle of equality and mutual benefit, etc. have been affirmatively stated.

A number of bilateral agreements, protocols or memorandums signed by Sino-foreign States constitute the legal norms containing the right and duty of the Parties concerned to govern their cooperative relation. These bilateral agreements, protocols or memorandums also contribute to the development of ICLPUOS.

(ii) Focus on international space cooperation with developing countries. AS its policies on international space cooperation elaborate, China reinforces not only international space cooperation with developing countries, but also values space cooperation with developed countries, particularly those with major space capability.

But in fact, in its practice, more importance is attached to international space cooperation with developing countries. The space programs or projects relating to international cooperation with the developing countries have been carried out mainly to meet the need of their economic, social or scientific and technological development. For example, since 1988, China has provided developing countries every year with scholarships for long term space technology training. These space programs or projects are welcomed by the developing countries.

A good example is Sino-Brazil space cooperation. The two countries are both developing countries and emerging economies and desire to develop the space science and technology and its applications so as to promote their economic and social development. For this purpose, Sino-Brazil has carried out a wide range of space cooperation on the basis of equality and mutual benefit, and the cooperation in the space sector has set a good model for developing countries in "South-South Cooperation" in the high-tech field.

(iii) Attach importance to regional cooperation in PUOS. Since White Paper in 2000, China's fundamental policies on international space cooperation stress regional cooperation in PUOS, particularly international space cooperation in the Asia-Pacific region while supporting other regional space cooperation around the world.

In fact, China actively participates in the various activities relating to Asian-Pacific multilateral space cooperation and has contributed a lot to the operation of the mechanism of Asian-Pacific multilateral space cooperation.

First, China is one of the sponsors of a series of conferences and symposiums on Asian-Pacific multilateral space technology cooperation and has hosted many major activities, for example, the first Asian-Pacific regional Ministerial Conference on Space Applications for Sustainable Development in Asia and the

Pacific, Symposium on Promoting Sustainable Agricultural Development with Space Applications and UN/ESA/China basic space science workshops and a UN/China workshop on tele-health development in Asia and the Pacific, etc.

Second, the Chinese governments signed the Memorandum of Understanding on Cooperation in Small Multi-Mission Satellite and Related Activities with the government of Iran, the Republic of Korea, Mongolia, Pakistan and Thailand, and signed the Asia-Pacific Space Cooperation Organization (hereinafter APSCO) Convention in Beijing with Bangladesh, Indonesia, Iran, Mongolia, Pakistan, Peru and Thailand.

Third, China continues to promote the Asia-Pacific Region Multilateral Cooperation in Small Multi-Mission Satellites Project. Together with Bangladesh, Iran, the Republic of Korea, Mongolia, Pakistan and Thailand., China started the joint research, manufacture and application of small multi-mission satellites, which were launched in 2007.

Fourth, under the APSCO frame, the Chinese government actively participates in the cooperation and study of various projects, including the development of a space data-sharing platform, its demonstration and application, an Earth-based optic space target observation network and compatible navigation terminals. China has promoted space cooperation in the Asia-Pacific region by assisting APSCO in the formulation and release of its policy on small satellite data in Asia-Pacific multilateral cooperation.

All these activities contribute to enhancing the progress of space science and technology and its applications in the Asia-Pacific region.

(iv) Guide Sino-foreign international space cooperation with the national policies. The Chinese government consistently values the formulation of its national policies to guide Sino-foreign international cooperation, particularly in the high scientific and technological fields. Space activities entail the high scientific and technological applications and it is necessary for China to formulate its national policies to guide Sino-foreign international space cooperation. Only if these national policies are done in accordance with ICPPUOS formulated by UN and international law, particularly ISL, are they helpful in the promotion of Sino-foreign international cooperation in PUOS.

In fact, these policies exert an important and effective role in guiding the activities of Sino-foreign international cooperation in PUOS. Surely, they will continue doing so. It can be anticipated that more new policies of this kind will be regularly formulated in the form of China's White Paper on Space Activities which is expected to be issued every five years.

Conclusion

The present paper has studied on ICPPUOS formulated by GA resolutions by recalling, in historical perspective, its evolutionary processes and demonstrated its influence on the formation of ICLPUOS. China's national policies of international cooperation in PUOS have been introduced and its characteristics have been analyzed in comparative approach. Therefore, the present paper's conclusion is given as follows:

- (i) The evolution of ICPPUOS and ICLPUOS shows that the fundamental policies and legal principles relating to international cooperation in PUOS are increasingly mature and perfect. They influence and promote mutually and they together promote the orderly advancement of space science and technology and its applications and ensure that the space activities are carried out for the purposes of peaceful exploration and use. Therefore, both ICP-PUOS and ICLPUOS are indispensable in the promotion of international cooperation in PUOS and the development of the rule of law in this field.
- (ii) With the fast development of space science and technology and its applications in the new millennium, the great change has taken place, first in that space activities has become more complicated; second in that the number of demand in this field is increasing; and third in that the actors involving in space activities has become increasingly plural. This great change has brought about new problems and challenges which entails all States to expand and strengthen their international cooperation in PUOS, not only in the field of the advancement of space science and technology, but also in the field of the development of ISL so as to solve the legal aspects of outer space, in particular that of ICLPOUS. Therefore, the role of UN as a focal point and COPUOS as a unique platform is to be reinforced in the promotion of both the advancement of space science and technology and its applications, and the development of ICPPUOS and ICLPUOS.
- (iii) The legal aspects of outer space involve many questions, some of which have been solved and others remains unsolved, for example, the State responsibility for collisions of space objects, the use of nuclear power sources and the mitigation of space debris. There have appeared legal blind areas and legal loopholes. Nevertheless, this leaves room for the evolution of ISL, and also entails all States to carry out wider and further international cooperation in solving these legal questions. Therefore, it is necessary to strengthen international cooperation in the formulation of more detailed ICPPUOS and transformation of more ICPPUOS into guiding legal principles and legal norms to govern the legal relations of international space cooperation of all States. At present, it is an urgent work to make a treaty on international cooperation in PUOS on the basis of OSICD. By doing so, international cooperation in PUOS will be the legal duty and requirement on all States instead of policy advocacy and recommendation
- (iv) The development of ICPPUOS and ICLPUOS depends a lot on the practice of States in their bilateral and multilateral cooperation in PUOS. Developing countries have accumulated a wealth of experience in their practice of international cooperation in PUOS, such as that of China, Brazil and other countries in the Asia-Pacific region. They have their practice in international space cooperation with developed countries and international organizations or institutions, and among themselves as well. Their experience in international space cooperation is useful and helpful to the development of ICPPUOS and ICLPUOS. So, in the formulation of ICPPUOS and ICLPUOS, particular account should be taken of their experience of international cooperation in PUOS besides their needs for space science and technology and its applications.