CURRENT LEGAL STATUS AND RECENT DEVELOPMENTS OF APSCO AND ITS RELEVANCE TO PACIFIC RIM SPACE LAW AND ACTIVITIES

Haifeng Zhao[*]

I. INTRODUCTION

This article will discuss the new regional intergovernmental space cooperation organization - the Asia-Pacific Space Cooperation Organization (APSCO), along with its legal framework and its relationship with the space law and space activities of Pacific Rim.

What is the purpose of space cooperation? International cooperation in space activities is determined by their characters, i.e., high cost, high risk, and high-technology. The cooperation between space faring nations is necessary for the purpose of reducing space exploration costs of individual participants, allocating risk, and allowing nations to share benefits emanating from a more efficient allocation of resource and technological efforts. International space cooperation can promote national scientific, technological, economic, and even political interests.[1]

---

[*] Prof. Haifeng Zhao, Professor of Law, Dean, School of Law, Harbin Institute of Technology (H.I.T.), China; Director of the Space Law Institute, H.I.T. The views expressed here are entirely the author's, and do not necessarily represent those of the Harbin Institute of Technology or any other organization. The author would like to express his gratitude to Bin Li & Jingzhu Li, Researchers of the Space Law Institute, H.I.T., to Ms. Huang Furong, Associate Professor of the School of Languages, H.I.T., to Ms. Wang Jing, Master of International Law of H. I. T. and to Mr. Yonggen Cao, graduate students of the law school of H.I.T., for their views, support and help during the writing of this paper. The author would like to thank Prof. Joanne Gabrynowicz, director of the Institute of National Remote Sensing, Air and Space Law, in Mississippi University, for her kind invitation to the wonderful Asia-Pacific National Space Law Summit, held in Honolulu during 19-20 of May 2009, the author is also grateful for the participants of the Summit, during this conference, after having listened to this report, several eminent experts of space law gave their comments on the paper, which is very useful for the improvement of the paper.

[1] *See* 《外层空间法》[OUTER SPACE LAW] 304 (He Qizhi & Huang Huikang, eds., Qingdao Press, 2000).

Therefore, from the very beginning of the space era, the international community has recognized the need for international cooperation for development, regarding space cooperation as an effective solution to some difficult problems.[2] As a matter of fact, international cooperation in space activities has always been increasingly strengthened on international, regional or bilateral basis, observable through the increase of cooperation channels and the extension of cooperation fields.[3] The parties involved in the cooperation can be governmental or non-governmental bodies. Cooperation in space activities can be of civil, commercial, and even military nature. Space cooperation has occurred among different developed countries, among developed and developing countries, and among different developing countries.[4] The United Nations plays a crucial role in international space cooperation, and a comprehensive space cooperation network has been formed with U.N. space cooperation mechanisms as its core.

International cooperation is a fundamental principle of space law. Since the United Nations General Assembly adopted the first resolution on outer space activities in 1958, international space cooperation as a main line has been insisted upon by all U.N. conventions, resolutions and other documents, becoming thus a guiding rule on national space activities.[5] As the charter for outer space activities, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (Outer Space Treaty) clearly provides that international cooperation is a basic principle in the exploration and use of outer space, putting emphasis on the principle in its Preamble and a number of provisions.[6] So the international space cooperation has a solid legal basis. A series of U.N. General Assembly reso-

---

[2] Luo Kaiyuan, *《国际空间合作的发展态势分析》*（上）[*The Trend of Development of International Space Cooperation* (part I)] 7 AEROSPACE CHINA 34 (2001).

[3] *Id*.

[4] *Id.*

[5] *See* OUTER SPACE LAW, *supra* note 1, at 203.

[6] Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, *opened for signature* Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter Outer Space Treaty].

lutions, particularly 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 adopted in 1996[7] (The Space Benefits Declaration), further materialize the principle of international space cooperation, raising eight principles that the international space cooperation should follow. In 1999, these principles were reaffirmed through the "The Space Millennium: the Vienna Declaration on Space to the Human Development," during the UNISPACE III Conference.[8] The Space Benefits Declaration clearly states that international cooperation should be for the welfare and interests of all countries, regardless of their economic, social or scientific and technological status, and shall be for all humankind, taking particularly into consideration the needs of developing countries.[9] The following section will be about the APSCO, whose establishment and functioning could be regarded as a concrete measure for the implementation of the above international space legal instruments.

The development of space activities can not only bring greater authority, sense of cohesion, and pride to a State, but also stimulate the rapid development of technology, and produce great practical value in the economy and society. Thus, a growing number of Asian countries have become involved in the space applications activities. The Asia-Pacific region occupies a vast territory,[10] with an enormous population and the world's

---

[7] 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, G.A. Res. 51/122, U.N. Doc. A/Res/51/122 (Dec. 13, 1996) [hereinafter The Space Benefits Declaration].

[8] Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III), July 19-30, 1999, *The Space Millennium: the Vienna Declaration on Space to the Human Development*, *available at* http://www.oosa.unvienna.org/pdf/reports/unispace/viennadeclE.pdf (last visited Nov. 2, 2009).

[9] The Space Benefits Declaration, *supra* note 7.

[10] The Asia-Pacific region, in a narrow sense, refers to countries and regions around the Asian Pacific Rim, as well as other countries and regions around Pacific Rim; in a broad sense, it refers to all the Asian countries and regions as well as all of the countries and regions around Pacific Rim. This can be seen from the members of Asia-Pacific Economic Cooperation (APEC): so far, APEC has twenty-one (21) members in all, including Australia, Brunei, Canada, Chile, China, Indonesia, Japan, Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, Philippines, Russia, and the United States. *See* Asia-Pacific Economic Cooperation, http://www.apec.org/ (last visited Oct. 30, 2009).

largest regional demands for commercial communications satellite. In the Asia-Pacific region disasters happen frequently, so there is an urgent need for the Asia-Pacific countries to develop space technology and apply it on disaster reduction. However, due to the magnitude of technical, financial, and human resources that are required to develop applications of space science and technology and also to the limits of economic and technical capacity, it is difficult for a single country in the region to make great achievement on its own. States in the Asia-Pacific region would benefit from pooling their technological, financial, and human resources into the development of their space activities.

In this context, since the 1990s, China, Thailand, and Pakistan have initiated the establishment of an independent APSCO to achieve those cooperative goals.[11]

The Asia-Pacific Space Cooperation Organization, a regional intergovernmental organization made up of Asia-Pacific Region countries, focuses on both space technology and its applications, and it is also a non-profit independent body with full international legal status. Headquartered in Beijing, APSCO is the second most comprehensive regional space cooperation organization in the world after the ESA.[12] As one of its outstanding characteristics, nearly all the Member States of APSCO are developing countries. Its establishment is favorable to the expansion of exchange of and cooperation in space technology and application of this technology among Asia-Pacific region countries; the promotion of space development; and the acceleration of economic and social development and the common prosperity of Asia-Pacific region.[13] The basic legal document of the APSCO is the Convention of the Asia-Pacific

---

[11] *See* Convention of the Asia-Pacific Space Cooperation Organization, at Preamble, *available at* http://tradeinservices.mofcom.gov.cn/en/b/2005-10-28/18583.shtml [hereinafter APSCO Convention]. See also the Chinese version of the Convention, Haifeng Zhao (ed.), 1 SPACE L. REV. 254-65 (2006); and the English version of the Convention, 2-3 SPACE L. REV. 401 (2009).

[12] Fien Van Parys, Space Program of the People's Republic of China 38 (2003-2004) (unpublished LL.M. thesis, Leiden University) (on file with author).

[13] Huang Ju, "黄菊出席《亚太空间合作组织公约》签字仪式", 《国防科技工业》 [*Huang Ju Attended the Signing Ceremony for APSCO Convention*], 15 NAT'L DEF. INDUSTRY IN SCI. AND TECH. 14 (2005).

Space Cooperation Organization (APSCO Convention). The APSCO Convention was signed in Beijing on October 28, 2005 and entered into force on October 12, 2006. The APSCO Convention contains 35 articles, divided into 11 chapters, including: General Rules, Fields of Cooperation and Cooperative Activities, Membership, Functional Organs, Council of the Organization, Secretariat, Finances, Disputes, Supplement Provisions, Amendments, Ratification, and Entry into Force.

According to the scope of cooperation, regional space cooperation organizations can be divided into two types: one is general organizations, such as the European Space Agency; the other is specialized organizations, such as the European Meteorological Satellite Exploitation Organization[14] and the Arab Telecommunications Satellite Organization.[15] With regard to regional cooperation, ESA, set up in 1975, is a very successful and exemplary model. The cooperation between the European Union and ESA makes the regional cooperation in Europe even more powerful and comprehensive, and plays an increasingly important role on the world stage.[16] Concerning the establishment and the legal framework of APSCO, a number of Asian scholars have given their advice on the question of whether APSCO should learn from ESA. As a matter of fact, there are

---

[14] The main purpose of the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) is to deliver weather and climate-related satellite data, images and products– 24 hours a day, 365 days a year. This information is supplied to the National Meteorological Services of the organization's in Europe, as well as other users world-wide. EUMETSAT is an intergovernmental organisation and was founded in 1986. *See* EUMETSAT, *About EUMETSAT,* http://www.eumetsat.int/Home/Main/AboutEUMETSAT/index.htm?l=en (last visited Nov. 22, 2009).

[15] Members of the Arab League signed the Arab Space and Communications Cooperation Agreement in 1976, in Cairo, established Arab Satellite Communications Organization, and headquartered in Riyadh. Its main purpose is to establish, operate and maintain the Arab region's satellite communications system, as a supplement to the region's international satellite communications services, and provide a new way to exchange television programs among Arab countries. The organization began to operate in 1985. It is the first satellite communications organizations set up by developing countries. *See* Arab Satellite Communications Organization, *History*, http://www.arabsat.com/Pages/History.aspx (last visited Nov. 22, 2009).

[16] For example, the EU recently recommended a "Draft Code of Conduct for Space Activities," made proposals to a range of issues on regulating the safety of space activities. *See* Council of the European Union, *Council conclusions and draft Code of Conduct for outer space activities*, 17175/08, PESC 1697, CODUN 61 (Dec. 17, 2008), *available at* http://register.consilium.europa.eu/pdf/en/08/st17/st17175.en08.pdf.

many similarities between the APSCO Convention and the Convention for the establishment of a European Space Agency (ESA Convention).[17] This article will compare the APSCO Convention with the ESA Convention where necessary.[18]

This article begins with a review of the present situation of space cooperation in the Asia-Pacific region, and a brief history of the establishment of APSCO (II); the second part is followed by the examination of the main contents and the latest developments in APSCO law (III); then this article considers the problems relating to the improvement of APSCO law (IV); finally, it analyzes the relationship between APSCO law and space law in general and the relationship between APSCO and the space law and activities in Pacific Rim area (V).

---

[17] Fien Van Parys, *supra* note 12, at 55.

[18] European Space Agency, referred to as "ESA", The author believes that ESA is a very integrative international space cooperation organization. It is the highest organization form and the standing body of space cooperation in Europe. The ESA Convention was passed in May 30, 1975, and came into effect on October 30, 1980. Convention for the Establishment of a European Space Agency, at Introductory Note, http://www.esa.int/convention/ (last visited Oct. 30, 2009) [hereinafter ESA Convention]. The ESA was founded on May 30, 1975. *Id.* At that time, in Paris, the eleven (11) EC countries represented on behalf of the Government agreed to the ESA Convention, to replace the European Space Research Organization (ESRO) and the *European Launcher Development Organisation* (ELDO). *See* ESA, *History*, http://www.esa.int/SPECIALS/About_ESA/index.html (last visited Nov. 24, 2009). The purpose of ESA is to develop in space research, space technology, and application fields among European countries, exclusively for peaceful purposes. ESA Convention, *supra* note 18, at Preamble. It is headquartered in Paris, and its subsidiaries mainly include: the European Space Technology Research Center based in Netherlands, the European Space Operation Center located in the Federal Republic of Germany, and the ESA Center for Earth Observation located in Italy. *See* ESA, *What is ESA*, http://www.esa.int/SPECIALS/About_ESA/SEMW16ARR1F_0.html (last visited Nov. 24, 2009). At present, ESA has the following eighteen (18) member states: Germany, Austria, Belgium, Denmark, Spain, Finland, France, Greece, Ireland, Italy, Luxembourg, Norway, the Netherlands, Portugal, United Kingdom, Sweden, Switzerland and the Czech Republic. ESA, *New Member States, available at* http://www.esa.int/SPECIALS/About_ESA/SEMP936LARE_0.html (last visited Oct. 30, 2009). In addition, Canada and Hungary also participated in some of the cooperative projects. *Id. See also* Chukeat Noichim, The Adean Space Organization, Legal Aspects and Feasibility, 121 (unpublished LL.M. thesis, Leiden University, 2008).

II. REGIONAL SPACE COOPERATION IN ASIA AND THE ESTABLISHMENT OF APSCO

This section will firstly give a brief summary of Asia-Pacific space cooperation, then describe the development of Asia-Pacific Space Cooperation Organization, and finally, its succinct development history based on the Asia-Pacific space multilateral cooperation.

A. Regional Space Cooperation in Asia

Recently, Space activities in Asian countries have been developing very quickly, especially in China, Japan, and India. As indicated by the classification of Professor Setsuko Aoki, the space capacity of Asian countries can be divided into three categories. China, India, and Japan as the first category for their independent space capacity. These three countries have launched national satellites into geostationary orbit with their own launch vehicles, and can create various types of satellites with quite advanced technology. As early as 1970, Japan launched an artificial satellite into space. India has launched numerous satellites, and recently China has made great progress in the field of human space flight. The second category covers those Asian countries that manufacture, possess, or utilize remote sensing technology or launch vehicles, and includes South Korea and several ASEAN members such as Indonesia, Malaysia, Thailand, and Singapore. South Korea will likely move rapidly into the first category. The third category includes those countries passively enjoying the benefits of space applications, such as Vietnam, the Philippines, Laos, Cambodia, Brunei, Sri Lanka, Myanmar, Bangladesh, Nepal, and Mongolia. The actual trend is that some countries of the third category aim to enter into the second category.[19]

---

[19] Setsuko Aoki, *Regional Cooperation in Asia relating to Space Activities* (Commentary), *in* PROCEEDINGS OF THE SPACE LAW CONFERENCE, ASIAN COOPERATION IN SPACE ACTIVITIES A COMMON APPROACH TO LEGAL MATTERS (Ministry of Information and Communication Technology (Thailand) and the McGill Institute of Air and Space Law, Bangkok, Thailand, Aug. 2-3, 2006).

Asian countries have actively participated in numerous space cooperation activities under the framework of United Nations, and they have made contributions to various degrees. Asian countries are paralleling their space cooperation with some main countries playing a central role. Additionally, different forms of cooperation have been developed and led by some important space faring countries, such as China and Japan.

Besides the bilateral cooperation with the United States and other partners, Japan has held the Asia-Pacific Regional Space Agency Forum (APRSAF) every year since 1993. That has provided a forum for Asian countries to exchange views and discuss space development and cooperation, and to enhance regional space capacity. In addition to Asian countries, Australia, Canada, France, Germany and the United States and other countries in the region and even beyond the Asia-Pacific region and international organizations also attended the APRSAF conferences. The relevant space institutions of Japan have also organized some cooperative projects, seminars, training course on space activities etc, in the Asian region.[20] In 2005, Disaster Management Support System (DMSS) was established in Asia-Pacific region in the framework of the APRSAF, which requires best efforts and voluntary action by participating organizations.[21] The system will go through three stages, and be completed in 2010. From a legal point of view, APRSAF is an international forum, although it has gradually showed effects in some aspects of space cooperation, it is not an intergovernmental cooperation organization with legal personality.

> In addition to its broader international cooperative efforts in outer space, India has been involved in Asian regional efforts. For example, India has established a Center for Space Science and Technology Education for the Asia-Pacific region that is sponsored by the U.N. India has also hosted the U.N.-ESCAP

---

[20] Doo Hwan Kim, *The Possibility of Establishing an Asian Space Agency*, 5(1) THE SINGAPORE Y.B. OF INT'L L. 218-219 (2001).

[21] Setsuko Aoki, *supra* note 19.

> Conference on Space Applications for Sustainable Development in Asia and the Pacific.[22]

China has actively participated in all kinds of international cooperation by initiating the Asia Pacific Multilateral Cooperation in Space Technology and Applications and Asia-Pacific multi-mission small satellite projects at the regional level. And on this basis, a regional intergovernmental space cooperation organization has been established – the Asia-Pacific Space Cooperation Organization. APSCO currently has seven members.

B. The Establishment of Asia-Pacific Space Organization

According to Yang Mingjie, before 1977, China was isolated from the world in the field of space cooperation, but since 1977, China has entered the international space community by sending delegations to France, the United States, and Japan; since 1985, China began to give services to the international space industries by putting the *Long March* (*Changzheng*) rocket series into the world launch service market.[23]

Since then, China has always been active in all sorts of international space cooperation, on the basis of equality and mutual benefit, complimentarily, and common development. China attaches much importance to space cooperation with not only developed countries, such as the United States, Russia, and European countries, but also developing countries. China has concluded intergovernmental agreements on space cooperation with many countries. China National Space Administration (CNSA) has signed inter-agency cooperation agreements with a number of space agencies of foreign countries. Chinese space industry has established cooperative relations in space technology and trade with dozens of countries, and has carried out fruitful bilateral and multilateral cooperation in the fields of

---

[22] Haifeng Zhao, *Asia Pacific Space Cooperation Organization Convention*, in PROCEEDINGS OF THE 52ND COLLOQUIUM ON THE LAW OF OUTER SPACE 5(2007) (citing *The Possibility of Establishing an Asian Space Agency*, *supra* note 20, at 221).

[23] Yang Mingjie, *Chinese Role in the Regional Space Security Cooperation and APSCO* (Apr. 2007), *available at* http://www.docstoc.com/docs/11738677/Chinese-Role-in-the-Regional-Space-Security-Cooperation-and-APSCO (last visited Oct. 30, 2009).

manufacture and launching of satellites, human space flight, and space technology applications.[24]

The basic Chinese space cooperation policies were published in "China Space Activities in 2006," Yang Mingjie gave each of the five policies a title as follow:

> (1) Independence -- Adhering to the principle of independence and taking the initiative in its own hands, 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.
>
> (2) United Nationalism -- Supporting activities regarding the peaceful use of outer space within the framework of the United Nations. Supporting 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.
>
> (3) Regionalism -- Attaching importance to space cooperation in the Asia-Pacific region, and supporting other regional space cooperation around the world.
>
> (4) Multilateralism -- Reinforcing space cooperation with developing countries, and valuing space cooperation with developed countries.
>
> (5) Multi-mechanism -- 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.[25]

---

[24] See Haifeng Zhao, *The Status Quo and the Future of Chinese Space Legislation*, 58 (1) ZEITSCHRIFT FUR LUFT UND WELTRAUMRECHT [JOURNAL OF AIR AND SPACE LAW] 99 (2009). *See also* OUTER SPACE LAW, *supra* note 1, at 244.

[25] Yang, *supra* note 23, at 6 (*citing* Information Office of the State Council of the People's Republic of China, *China's Space Activities in 2006* (Oct. 12, 2006), *available at* http://www.fas.org/spp/guide/china/wp2006.pdf (last visited Oct. 30, 2009)).

In the 1990s, for the Asia-Pacific region, especially East Asian countries, their political situations were relatively stable, and their economy also continued to develop. A good opportunity appeared for the Asia-Pacific countries to develop the space industry together.[26] The establishment of APSCO is the result of the institutionalization of Asia-Pacific Multilateral Cooperation in Space Technology and Applications (AP-MCSTA for short).[27] AP-MCSTA, based on the memorandum among the space agencies of China, Pakistan, and Thailand, was established in 1992. Its purpose is to facilitate Asia-Pacific cooperation in space application, to spread small-satellite technology, and to promote space capacity-building. Starting with the flexible AP-MCSTA mechanism. The conference held in Beijing in 2001 put forward the recommendations on Asia-Pacific cooperation and conferred APSCO with legal personality, with a consensus having been reached by its sixteen members. In a sense, the establishment of APSCO regime and mechanism is accelerated to a large degree by the AP-MCSTA project.[28]

Under the framework of AP-MCSTA, a workshop was organized in Beijing in December 1992, with the purpose of

> discussing the approach, manner, budget and legal issues related to developing APSCO. The participants have unanimously agreed to establish an AP-MCSTA Mechanism, and to increasingly accelerate the process of institutionalization of the Mechanism, namely the establishment of APSCO. For this purpose, a Liaison Committee and a Preparatory Committee for APSCO have been established, with China as the coordinator. In January 1994, the First AP-MCSTA Meeting, which was organized in Bangkok, confirmed the establishment of a Preparatory Committee, locating its Secretariat in China. Hereafter, seven AP-MCSTA conferences have been successively organized in Thailand, Pakistan, Korea, Bahrain, Iran,

---

[26] *See* He Qizhi, *The Situation and Legal Framework of Asia-Pacific Space Cooperation*, 4 AEROSPACE CHINA 4 (1994).

[27] Asia Pacific Multilateral Cooperation in Space Technology and Applications, http://www.apsco.int/index.aspx (last visited Nov. 22, 2009).

[28] Luo Ge, 罗格：《建立亚太空间合作组织推动区域空间合作》[*The Review and Future of the Institutionalization of the Asia Pacific Multilateral Cooperation in Space Technology and Applications*], http://www.cnsa.gov.cn/n615708/n620172/n677078/n751578/63001.html (last visited Oct. 30, 2009).

China and Thailand. These Conferences have strengthened the political mutual trust among countries in the region, and have promoted regional cooperation in space technology and its applications.[29]

In July 2001, the Secretariat of AP-MCSTA was founded in Beijing in order to push forward the multilateral cooperation program and the institutionalization of the AP-MCSTA Mechanism. It has coordinated the Asia-Pacific Small Multi-Mission Satellite Project (SMSS) with the participation of China, Thailand, Korea and Mongolia. The Secretariat has also held Space Technology and Remote Sensing Application training courses for government officials and technical personnel of the Asia-Pacific countries.

In August 2003, the First Meeting of the Drafting Group on the APSCO Convention was organized in Bangkok. The participating representatives agreed to establish headquarters of APSCO in Beijing. In November of the same year, the Second Meeting of the Drafting Group on the [APSCO] Convention was organized in Beijing. The Meeting focused on four articles: financial arrangements, diplomatic privileges and immunities, industrial policy and space technology safeguards. The final version of the [APSCO] Convention was adopted, establishing the legal basis for APSCO.

From December 2003 to February 2004, the Secretariat submitted the final version of the [APSCO] Convention to 25 Asia-Pacific countries for approval. At the end of 2004, the Secretariat organized an experts' group meeting for financial arrangements. The delegates reached an agreement on the organizational structure of APSCO, its budget on administration and basic activities for the year 2007, and the minimum financial contribution ratio to APSCO by the member states.[30]

On October 28, 2005, the governmental representatives from eight states – Bangladesh, China, Indonesia, Iran, Mongolia,

---

[29] *The Status Quo and the Future of Chinese Space Legislation*, *supra* note 24, at 5.

[30] Luo Ge, 罗格：《建立亚太空间合作组织推动区域空间合作》[*Establishing the Asia-Pacific Space Cooperation Organization to Promote the Regional Space Cooperation*], http://www.chinanews.com.cn/news/2005/2005-02-08/26/538877.shtml (last visited Oct. 30, 2009).

> Pakistan, Peru and Thailand – signed the APSCO Convention. Turkey signed the APSCO Convention in [*sic*] a later date. . . .
>
> On October 29, 2005, the first meeting of the Interim Council of APSCO was held in Beijing, with representatives of the signatory States to the [APSCO] Convention. The meeting elected Mr. Kraison Pornsuti as Chairman of the Interim Council, Mr. Sun Laiyan, Administrator of China National Space Administration and Mr. Raza Hussain, Chairman of Pakistan Space and Upper Atmosphere Research Committee as Vice Chairmen. The Council adopted working procedures and established special committees on law, project planning and coordination, financial management, and other activities.[31]

According to the APSCO Convention, the entry into force of the APSCO Convention is conditioned upon the fact that at least 5 states of the Asia-Pacific Region, which are members of the U.N., have signed and deposited it with the Host Government their instruments of ratification or acceptance. On October 12, 2006, the APSCO Convention entered into force.

The Second Meeting of the Interim Council of APSCO was held on November 28-29, 2006. The Member States adopted the Draft Rules of Procedure for APSCO Council. In his working report to the Interim Council, Mr. Luo Ge, the Secretary-General of the Interim Secretariat of APSCO, introduced the activities having been carried out by the Secretariat during the year 2006 and the future plan for 2007. He also explained the efforts that the Interim Council had made for promoting the effectiveness of the APSCO Convention.

On April 25, 2007, the host Government - China, submitted the APSCO Convention to the United Nations, since then the APSCO Convention has been officially registered by the Secretariat in New York.

On December 16, 2008, after 16 years' preparation, an inter-governmental international organization - APSCO, aiming at promoting space cooperation of the Asia-Pacific region, was

---

[31] *The Status Quo and the Future of Chinese Space Legislation*, *supra* note 24, at 5-6.

officially set up in Beijing. So far, the seven members of APSCO are: Bangladesh, Iran, Mongolia, Pakistan, Peru, Thailand, and the host country, China. Turkey and Indonesia have signed but not yet ratified the APSCO Convention.

On December 16-17, 2008, the first meeting of the Council of APSCO was held in Beijing, Thailand Deputy Permanent Secretary of Information and Communication Technologies Department Mr. Angsumal Sunalai was elected as President of the Council, Bangladesh National Defense Department Secretary-General, Mr. Kamrul Hasan, and the Administrator of Chinese National Space Administration Dr. Sun Laiyan were elected as Vice-Presidents. The Secretary-General of Asia-Pacific Multilateral Space Cooperation Secretariat-Chinese, Dr. Zhang Wei, was appointed as Secretary-General of APSCO.

The Council has decided to validate the decisions of Interim Council in the first and the second meeting and to modify and confirm the Rules of Procedure for the Council of APSCO, Financial Rules of APSCO, and the Regulations on staff members of APSCO. Furthermore, the Council discussed and adopted the 2009 working plan and financial arrangements, and it assessed the ratio of the financial contribution of APSCO members as well as six project proposals. The next Council meeting will be held in the second half of 2009. The APSCO headquarters' seat was decided upon, and the headquarters' building located in the Science City, Fengtai District, Beijing.[32]

III. THE LEGAL FRAMEWORK AND THE LATEST DEVELOPMENTS OF APSCO

A. The Legal Personality of APSCO

i. The Legal Status

As mentioned above, APSCO is the second comprehensive regional intergovernmental space cooperation organization in

[32] 2 AEROSPACE CHINA (2009), *available at* http://www.space.cetin.net.cn/index.asp?modelname=spacechina%2Fdzqk_nr&FractionNo=&titleno=DZQKAN00&recno=5112 (last visited Oct. 30, 2009).

the world. Similar to ESA, APSCO has complete international legal status, enjoying full international legal personality.[33] It is a legal subject of international law. Since APSCO has international legal personality, it can conclude agreements with other international organizations and related countries. Provided the relevant international space treaty permits to do so, APSCO itself can become a member to an international space treaty and be bound to it by making a special declaration for that purpose, provided that the majority of the Member States of APSCO are Member States of that treaty (sometimes also Member States of the Outer Space Treaty).[34] It shall, similar to the European Space Agency (ESA), have the capacity to acquire and dispose of movable and immovable property and may be a party to legal proceedings.[35] APSCO is a non-profit organization.

ii. Privileges and Immunities

According to the APSCO Convention, APSCO's staff members and experts, and representatives of the Member States shall enjoy in the territory of each Member State the privileges and immunities that are necessary for the exercise of the functions of APSCO or in connection therewith. They shall enjoy jurisdiction and execution immunities for the activities within the scope of their official duties. Unless otherwise agreed, such privileges and immunities shall be the same as those that each Member State accords to similar inter-governmental organizations and their personnel. The privileges and immunities of APSCO, its staff members and experts, and the representatives of its Member States in the territory of the Member State where the Headquarters of APSCO is located, namely China, shall be determined by the specific agreement to be concluded between APSCO and China.[36]

---

[33] APSCO Convention, *supra* note 11, at art. 3.

[34] *See* OUTER SPACE LAW, *supra* note 1, at 6.

[35] *See* ESA Convention, *supra* note 18, at Annex 1(Privileges and Immunities), art. 1.

[36] To ESA relevant staff, experts, and representatives of Member States, the provisions of their legal capacity, privileges and immunities are in the annexes of the Convention, Annex I. *Id.* The provisions of privileges and immunities total up to 28. *Id.*

B. Purposes and Principles of APSCO

In a paper on Asia-Pacific Space Cooperation, Mr. He Qizhi has once mentioned that the goal of APSCO is to promote the peaceful use of space and speed up the development of national economy.[37]

i. Purposes

The purposes of APSCO are to:

(1) promote and strengthen the development of collaborative space programs among its Member States by establishing the basis for cooperation in peaceful applications of space science and technology;

(2) take effective actions to assist the Member States in such areas as space technology research and development, applications and training by elaborating and implementing space development policies;

(3) promote cooperation, joint development, and share achievements among the Member States in space technology and its applications as well as in space science research by tapping the cooperative potential of the region;

(4) enhance cooperation among relevant enterprises and institutions of the Member States and promote the industrialization of space technology and its applications;

(5) contribute to the peaceful uses of outer space in the international cooperative activities in space technology and its applications.[38]

It is easy to see from the above-mentioned purposes that APSCO has a broad scope to cooperate, to improve the space capability, and to promote socio-economic sustainable development of each Member State by developing multilateral cooperation among Member States in the application of space science and technology and by taking effective actions to assist the Member States, to promote the prosperity of the whole Asia-Pacific region, and to contribute to the peaceful use of outer

---

[37] *See* OUTER SPACE LAW, *supra* note 1, at 5.
[38] APSCO Convention, *supra* note 11, at art. 4.

space. Although it aims also to guide and implement regional space development policies, compared with ESA, Asia-Pacific Space Organization imposes less requirements to Member States on the integration of the regional space activities. ESA shall coordinate the European space programme and national programmes and integrate the latter progressively and as completely as possible into the European space programme with regards to the development of application satellites, in particular.[39] But APSCO does not require its members to put their national space programs under the Asia-Pacific space plans. The Asia-Pacific Space Organization shows more respect to the relative autonomy of the Member States, as a result, there is no such clear requirement on the consistency between domestic space policy and the space policy of international organizations.

ii. Principles

The APSCO Convention stressed that based on the principles of "peaceful uses, mutual benefits and complementariness, equal consultations and development." APSCO commits itself to promoting and strengthening joint development in space technology among Member States, coordinating the Member States to implement and execute space development policies, and taking effective actions in space technological research and development, applications, and training.[40]

C. The Fields of Cooperation and Industry Policy

i. Field of Cooperation

In general, the field of cooperation of APSCO is wide-ranging. APSCO may carry out activities in the following fields, such as space technology and programs of its applications; earth observation, disaster management, environmental protection, satellite communications, and satellite navigation and position-

[39] Harry H. Atkinson, *Conclusion of Meeting*, *in* THE IMPLEMENTATION OF THE ESA CONVENTION, LESSONS FROM THE PAST 227 (European Space Agency/ European Centre for Space Law, Martinus Nijhoff Publishers, 1994).

[40] APSCO Convention, *supra* note 11, at Preamble.

ing; space science research; education, training, and exchange of scientists and technologists; establishment of a central data base for the development of programs and dissemination of technical and other information relating to the programs and activities; other cooperative programs agreed upon by the Member States.[41]

APSCO's cooperation activities include basic activities and optional activities[42] The basic activities that all Member States ought to undertake shall include: establishing APSCO's plans for space activities and development; carrying out fundamental research concerning space technology and its applications; extending the applications of matured space technology; conducting education and training activities concerning space science and technology and their applications; managing and maintaining the branch offices and the relevant facilities as well as the network system of APSCO; undertaking other necessary activities to achieve the objectives of APSCO.[43] As can be seen from the above, basic activities cover basic research, technology extending, education and training, as well as related activities for the maintenance of the operation of APSCO. All the Member States are required to participate in the basic activities.

---

[41] *Id.* at art. 6.

[42] Articles 7 – 8 of the Convention are similar to the ESA Convention in dividing three categories of space activities: the overall activities into mandatory activities (scientific nature), optional activities (strict space activities with practical nature), and operational activities (carried out by space agencies). APSCO Convention, *supra* note 11, at arts. 7 – 8. These activities are based on the principle of fair return. In 2003, 22 % of ESA's budget is for the mandatory activities, 72% is for optional activities. CONSEIL D'ETAT SECTION DU RAPPORT ET DES ETUDES, POUR UNE POLITIQUE JURIDIQUE DES ACTIVITIES SPACIALES 35 (2006). ESA's biggest success is the successful development and commercialization of the Ariane rocket, occupying half of the launch service market. Source: CONSEIL D'ETAT SECTION DU RAPPORT ET DES ETUDES, POUR UNE POLITIQUE JURIDIQUE DES ACTIVITIES SPACIALES 35 (La Documentation française, 2006).

[43] ESA's mandatory activities include: the activities of science nature include: education; plans to conduct a study; technical research; establishment and execution of science projects, such as the establishment of satellites and other space systems; information collection; space technology execution. ESA's optional activities are practical, which includes: the design, development, construction, launching, placing in orbit, and control of satellites and other space systems; the design, development, construction, and operation of launch facilities and space transport systems. THE IMPLEMENTATION OF THE ESA CONVENTION, LESSONS FROM THE PAST 25 (European Space Agency/ European Centre for Space Law, Martinus Nijhoff Publishers, 1994).

In terms of the optional activities, APSCO shall recommend and organize suitable space science, technology research and their applications programs for joint implementation by its Member States that choose to participate in such programs. Such a program shall be carried out following the principle of return on investment (fair return). "Fair-return" means that the return from an optional activity shall be obtained in proportion to their investment by the Member States participating in it, and is the cornerstone of APSCO's industrial policy. This principle not only promotes Member States to participate in APSCO activities by balancing investment and risk, but also rewards participants with technological capability and economic return in multilateral cooperation relating to space activities, thus promoting the general level of space activities in Asia-Pacific countries. As the practice of ESA shows, optional activities should be the key to establish the prestige of APSCO, and one of the most important criteria to measure the achievements of APSCO. The future of APSCO depends heavily on optional activities.

The practice of ESA has shown that, the distinction between mandatory activities and optional activities can give enough flexibility to Space Cooperation Organization. It can maintain the fundamental cooperation of Member States, as well as satisfy the demands of countries searching for more cooperation, in order to make all kinds of radical activities possible. This is a successful experience.

ii. Industrial Policy

The industrial policy shall have the following main goals, such as the development of competitive Asia-Pacific industry by resorting to free competitive bidding; the spreading of the relevant technologies among the Member States in order to create the specializations which are necessary for APSCO's programs and activities. APSCO also requires the Council to devise the industrial policy to meet the requirements of its programs and activities as well as the collaborative programs with the Member States, in a cost-effective manner; preference/opportunity shall be given, to the maximum possible extent, to the industry

in all Member States to participate in the tasks related to the implementation of APSCO's programs and activities; and, ensure all Member States participate in APSCO's programs and activities, in an equitable manner.[44]

As mentioned above, APSCO's principle of industrial policy is the same as the European Space Agency, i.e, the "fair return." Its expression can be understood as such, that is during the implementation of the projects and activities, and the joint development of space technology and products, APSCO should ensure that all Member States can equally participate in the projects' activities in accordance with their respective financial investment, including the technical input. ESA attaches much importance to the industrial policy and its implementation. The ESA Convention provides for its comprehensive industrial policy in a separate annex (Annex V, a total of six articles). The "fair return" principle created by ESA plays a key role in the European space industry capacity-building.[45]

D. Membership of APSCO

Similar to the membership of the ESA, APSCO's membership can also be divided into three categories, that is, full members, associate members, and observers.

i. Full member

In accordance with membership provisions in Article 9 of the APSCO Convention, APSCO shall be open to all U.N. members in the Asia-Pacific Region. Thus, if a country wants to be a

---

[44] The industrial policy of the ESA is to meet the requirements of the European space programme and the coordinated national space programmes in a cost-effective manner; improve the world-wide competitiveness of European industry; making use of the existing industrial potential; ensure that all Member States participate in an equitable manner, exploit the advantages of free competitive bidding. ESA Convention, *supra* note 18, at art. VII.

[45] Gabriel Lafferranderie, *The European Space Agency—Present and Future*, *in* PROCEEDINGS OF THE THIRTY-EIGHTH COLLOQUIUM ON THE LAW OF OUTER SPACE 195 (American Institute of Aeronautics and Astronautics, 1996). The "fair return" principle means that, in the optional activities of ESA, the geographical distribution of all the Agency's contracts shall be governed by the percentage contributions of the States in the project. *Id.*

member, first of all, it must be at the geographical scope of the Asia-Pacific region. By reference to the members of APEC, it is true that, in fact, the Asia-Pacific region covers a wide range of countries and regions around the Pacific Rim, including Asia (the whole Asian region), Oceania, the Americas, not just confined to Asian countries and regions. Secondly, a member of APSCO also must be a Member State of the United Nations,[46] so other entities and international organizations cannot become a member. At present, there are seven Member States in APSCO. After the entry into force of the APSCO Convention, any State, as defined in above two conditions, may accede to APSCO with the unanimous approval of the Council.[47]

The Member States have full voting rights. All Member States are entitled to participate in the cooperation programs and activities pursued by APSCO. Under the APSCO Convention, all Member States shall make financial contributions for the operation of APSCO. Any Member State that fails to fulfill its obligations shall be deprived of its membership in APSCO following a decision of the Council adopted by a two-thirds majority vote. [48] Member States can also withdraw from the APSCO Convention, in compliance with the applicable procedures provided for by the APSCO Convention.[49]

ii. Associate Members

A State outside the Asia-Pacific region or a member of the United Nations can apply for associate membership. The Council, by consensus, may decide upon its entry into APSCO. The Council may also decide, by consensus, upon its terms and conditions (financial contribution, participation in basic and cooperative activities of APSCO, etc.). The associate members do not have any voting right in the Council meetings. Brazil and

---

[46] *See* APSCO Convention, *supra* note 11, at art. 9.

[47] *Id.* at art. 30.

[48] *Id.* at art. 32. This provision is similar to the provisions of ESA's Convention. *See* ESA Convention, *supra* note 18, at art. V.

[49] *Id.* at art. 33.

Ukraine have once showed interest to be an associate members / observers of APSCO.[50]

iii. Observer

Any Member State of the U.N. or any international organization involved in space activities may be granted the Observer's status with the unanimous approval of the Council. The observers shall not have the right to vote in the Council's meetings. Argentina has approved the APSCO Convention, and has asked to be an observer of APSCO, as it is not located within the geographical scope of APSCO.[51]

APSCO encourages and facilitates itself and its members to develop international cooperation activities. As a number of countries have carried out a lot of international co-operational activities before joining APSCO, the APSCO Convention provides that participation in the activities of APSCO shall in no way affect the existing or future bilateral and multilateral cooperation engaged by the Member States. About the cooperation between APSCO and other entities, the APSCO Convention provides that APSCO shall cooperate with the agencies of the United Nations, in particular, its Committee on the Peaceful Uses of Outer Space. APSCO may establish cooperative partnerships with other countries than Member States of APSCO and other international organizations and institutions in pursuit of its objectives, with the unanimous approval of the Council. In this respect, the Council shall draw appropriate guidelines and procedure.[52]

E. The Organizational Structure of APSCO

The organs of APSCO include the Council and the Secretariat, as well as subsidiary institutions to be established by

---

[50] Wang Keran, *Background and Achievements with Regard to the Establishment of APSCO*, ASIA-PACIFIC SPACE OUTLOOK 15 (Sept. 2005).

[51] *Id.*

[52] *See* APSCO Convention, *supra* note 11, at 24.

APSCO, as it deems necessary. The institutional framework is very similar with ESA.[53]

i. The Council

The Council is the decision-making body of APSCO, and shall consist of ministers or ministerial representatives of the national space agencies of the Member States. Each Member State shall nominate one minister or ministerial representative for representation at the Council. The Council shall elect a Chairman and two Vice-Chairmen whose term of office shall be two years.[54] The Chairman is the head of the Council. The Council assumes a range of functions, including: defining policy, laws, and regulations; approving, depriving, and terminating the membership of the members, observers, and associate members; approving programs, budgets, and financial contribution; appointing officials, including Secretary-General; deciding to establish branch offices; and interpreting the APSCO Convention. There are 14 aspects in all.[55]

The Council shall meet when necessary but at least once per year. In this regard, it is different from ESA. The Council of the ESA did not hold an annual meeting, therefore, it often holds a meeting every several years.[56] The meetings shall be held at APSCO's headquarters. The participation of the official delegates from two-thirds Member States is necessary to form a quorum at any meeting of the Council.[57] Each Member State in the Council has one vote. Unless otherwise unanimously decided upon by the Council, the Council shall make every effort to adopt decisions upon matters by consensus.[58] In other words, the Council has established the principle of adopting decisions by consensus, but in some cases it needs to take a qualified majority for decision-making. Firstly, there are two cases in which

---

[53] Fien Van Parys, *supra* note 12, at 60.

[54] *See* APSCO Convention, *supra* note 11, at 11.

[55] *Id.* at *art.* 12. These provisions are very similar to Article 11, paragraph 5 and other relevant provisions of the ESA Convention. ESA Convention, *supra* note 18, at art. 11, para. 5.

[56] *The European Space Agency—Present and Future*, *supra* note 45, at 192.

[57] APSCO Convention, *supra* note 11, at 13.

[58] *Id*. at art. 14.

a two-thirds majority is required: one concerns the minimum financial contribution that each Member State is required to make; the other is the decision on the deprivation of membership. Secondly, the Council may, by a three-fourths majority vote of the Member States attending the Council meeting, terminate the office of the Secretary-General. Finally, the decisions on the following matters can only be adopted by unanimity: to allow any Member State of the United Nations or any international organization to be granted Observer's status; to allow a State outside the Asia-Pacific Region and member of the United Nations to apply for the status of Associate Member; to establish cooperative partnerships with countries other than Member States of APSCO and other international organizations and institutions; the proportion of the financial contribution of the Member States; to allow a State to accede to the APSCO Convention; and the dissolution of the APSCO.[59]

Resorting to consensus is a rather unique feature of the United Nations Committee on Peaceful Use of Outer Space (COPUOS) in drafting relevant international treaties on outer space and making other decisions. The merit of this decision-making method consists in the full respect for national sovereignty and its will. This process has promoted the formation of the international space law system while ensuring the sovereignty of each country. However, there is a negative aspect: when one State insists on opposing a decision in a particular case, the decision will be delayed or cannot be made, which causes inefficiency in the decision-making process. In this respect, the approach of ESA Council is worth of noting. In principle, decisions of the Council of the ESA shall be taken by simple majority, and in the following cases by qualified majority. Firstly, the decision concerning following matters should be adopted by the two-thirds majority of all Member States: to change activities and programmes of ESA recommendations addressed to Member States; to adopt the annual financial budget; to adopt the financial regulations; to adopt the person-

[59] Xiong Zheting, A Comparative Study of Asia-Pacific Space Cooperation Organization and the European Space Agency (unpublished PowerPoint report, Beijing Institute of Technology, School of Law, on file with author).

nel regulations; and the permission for the transfer of technology outside the territories of the Member States, There are also a number of cases in which the decisions should be unanimously adopted, including the level of resources to be made available to the Agency for the coming five-year period; towards the end of the third year of each five-year period and after a review of the situation, the level of resources to be made available to the Agency for the next five years.[60] Through a simple majority decision-making, the effective functioning of the institutions is maintained with greater flexibility.

ii. The Secretariat

> The Secretariat is the executive organ of [APSCO], and it consists of the Secretary-General and Secretariat staff members. The Secretary-General is the leader of the Secretariat and the chief executive officer of [APSCO] and its legal representative, similar to the ESA Director General. The Council appoints a Secretary-General for a period of five years, which may be extended for an additional five-year term. The Secretary-General participates in the meetings of the Council without voting right. The Secretary-General shall report to the Council, and in accordance with the directives issued by the Council, the Secretary-General is responsible for executing and implementing all the policies of [APSCO], as required by the Council; achieving the objectives of [APSCO]; managing and functioning of [APSCO]; drawing up annual reports, working plans and financial budgets of [APSCO] for approval by the Council; adopting and implementing the internal rules of the Secretariat; submitting proposals to the Council concerning programs and activities as well as measures designed to achieve the objectives of the programs and activities of [APSCO]; recruiting and administering the staff members of internal divi-

---

[60] *See* ESA Convention, *supra* note 18, at art. 11. *See also* Gabriel Lafferranderie, *Reflexions sur l'evolution institutinelle de l'Agency spatiale europeenne (ESA*) [*Reflections on the Institutional Evolution of the European Space Agency (ESA)*] 165, 171 (ECSL Summer Course, Sept. 1999). In the functioning of ESA, the practice of its voting system is different than what is stated in the ESA Convention articles, as the decisions adopt a unanimous voting system or seek a consensus. *See* Xiong Zheting, *supra* note 59*A Comparative Study of Asia-Pacific Space Cooperation Organization and the European Space Agency*, PPT report, BIT School of Law.

> sions from the Member States according to the Service Regulations set by the Council; designating on contract basis scientists, technologists and other experts who are not regular staff members for carrying out the assigned jobs of [APSCO]; negotiating and signing international cooperative agreements with the approval of the Council.[61]

As can be seen from above analysis, the Council is the decision-making authority, and the Secretary-General is the head of executive authority. From the practice of ESA, a balance of powers should be struck between the Council and the Secretary-General. It is a problem that shall be further considered and examined in practice.

The APSCO Convention pays much attention to the independence of APSCO staff members, vis-à-vis the governments of the Member States. According to the APSCO Convention, the duties of the Secretary-General and the staff, whether regular or on contract, with regard to APSCO shall be exclusively international in character. During the fulfillment of their duties with APSCO, they shall neither seek nor receive instructions from any government or from any authority external to APSCO. Each Member State shall also respect the international character of the status of the Secretary-General and the staff members, and shall not exert any influence on them in any manner or form during the fulfillment of their duties with APSCO.[62] At present, the recruitment of the main staff members of the Secretariat is ongoing, and we can expect that the Secretariat of APSCO will soon be a team made up of elites coming from different Member States.

After consultations with the host State or the Member States, APSCO can set up branches and related facilities in the corresponding countries.[63]

---

[61] *The Status Quo and the Future of Chinese Space Legislation*, *supra* note 24, at 9-10. *See* APSCO Convention, *supra* note 11, at art.. 17.

[62] *See* APSCO Convention, *supra* note 11, at art. 17(2). This provision is very similar to art. 12(4) of the ESA Convention. *See* ESA Convention, *supra* note 18, at art 12(4).

[63] *See* APSCO Convention, *supra* note 11, at art. 1.

F. Financial Arrangements of APSCO

The financial arrangement is very important for ensuring the normal running of each international organization. Each State pays much attention to its financial contribution to international organizations, and the standards for determining the contribution. Those factors even influence a country's decision on whether or not to join APSCO. The funds for APSCO originate from firstly, the contributions of the Member States; secondly, voluntary grants from the Host Government (China) and other Member States, donations/subsidies received from other organizations; and, thirdly, the income resulting from the services provided to others.[64]

Each Member State shall contribute to the budget of APSCO in accordance with the financial arrangements decided upon by the Council. The Council decides by consensus the sharing part of financial contribution of each Member State. It shall be reviewed every three years. The sharing part of the financial contribution of each Member State is calculated corresponding to the level of its economic development and average gross domestic product (GDP) per habitant. And each Member State is required to make a minimum financial contribution, the so-called "floor" contribution to APSCO, which is decided upon by the Council by a two-thirds majority. In addition, no Member State shall be required to make financial contribution of more than 18% of the approved budget of APSCO.[65] The 2008 APSCO Council meeting has decided that the contribution of China is up to 18% of the total budget. The sharing parts of contributions of ESA are based on the average national income of each Member State. Nevertheless, each of its optional activities provides for different methods of calculation on contribution according to different activities.

> There are also some provisions relating to donations. Subject to any directions given by the Council, the Secretary-General may accept donations, gifts or legacies to [APSCO] provided

[64] *Id.* at art. 18.

[65] *Id.* For ESA, the similar percentage is 25%. ESA Convention, *supra* note 18, at art. XIII(2).

that they do not entail any conditions contrary to the objectives of APSCO.[66]

G. Intellectual Property and Technology Safeguard

i. Intellectual Property Rights

In international space cooperation, the protection of the intellectual property is of significant importance. Art. 2 of the Space Benefits Declaration also mentioned this issue.[67] According to the APSCO Convention, intellectual property rights are those inventions, products, technical data, or techniques as well as other intellectual properties resulting from any programs and activities that are carried out by APSCO or through use of the resources owned by APSCO shall be owned by APSCO. APSCO shall abide by international conventions concerning protection of intellectual properties.[68]

ii. Technology Safeguard and Export Control

APSCO shall not allow any unauthorized access to protected information, items, and related technologies or measures in order to ensure the fulfillment of the duties by the representatives and the personnel of the Member States who are competent to handle such protected items or products, and it shall take appropriate measures for the protection and monitoring of such items as well as for the elaboration and implementation of specific technology security plans. With a view to implementing cooperative activities, programs, and projects of APSCO, the Member States shall conclude agreements on technology safeguard measures, and in necessary cases, promote the conclusion of such agreements by competent organizations and other designated organizations in order to elaborate and implement specific technology security plans. The Member States shall act in accordance with their respective national regulations and export

---

[66] *The Status Quo and the Future of Chinese Space Legislation*, *supra* note 24, at 10. *See also* APSCO Convention, *supra* note 11, at art. 18.

[67] The Space Benefits Declaration, *supra* note 7, at art. 2.

[68] *Id.* at art. 22.

control legislation concerning the goods and services covered by the export control list.[69]

H. Settlement of Disputes[70]

Any dispute between two or more member states or between any of them and APSCO concerning the interpretation or application of the [APSCO] Convention shall be resolved through two methods. Consultation is one the available options. It is often involved in the dispute settlement through diplomatic channels. Its advantage resides in retaining more freedom for the disputing parties; furthermore, when an agreement is reached by consultation, it is relatively easy to execute. The second option for dispute resolution is arbitration. In case of non-settlement of the dispute by consultation, arbitration shall be used in accordance with the rules adopted by the Council by consensus. The advantage of arbitration is that it keeps to a large extent the autonomy of the parties of the dispute, whereas the tribunal handles the case in strict accordance with legal rules. For example, there is more flexibility in selecting arbitrators than what is done in an international judicial procedure. Furthermore, the arbitral award is legally binding, then the parties must comply with it.[71]

In the process of acceding to international organizations, China generally prefers political solutions to legal procedures in dispute settlements.[72] The [APSCO] Convention has introduced some features of dispute settlement mechanisms of other international organizations, such as ESA.[73] However, there are two differences between the [APSCO] Convention and the ESA Convention. First, the ESA Convention insists that the dispute shall

---

[69] *Id.* at art. 23.

[70] The following section quoted from, *The Status Quo and the Future of Chinese Space Legislation*, *supra* note 24, at 11-12.

[71] *Id.* at art. 19.

[72] *See* Haifeng Zhao, 中国与国际司法机构关系的演进", 《法学评论》 [*The evolution of the relations between China and the international judicial institutions*] 6 LAW REVIEW 3-12 (2008).

[73] Any dispute between two or more Member States, or between any of them and the Agency, which is not settled by or through the Council, shall be submitted to arbitration (Article 19 of the ESA Convention).

initially be settled by the Council, and [APSCO] emphasizes amicable consultations, reflecting the usual position of Asian countries (e.g., China) in resolving international disputes through political or diplomatic channels. Second, although there are arbitration provisions in both Conventions, the corresponding rules of ESA are more detailed. The ESA emphasizes that the arbitral award shall be final and binding on all parties of the dispute and no appeal can be made. The parties shall comply with the award without delay.

Furthermore, under the [APSCO] Convention, [APSCO] shall cooperate with the agencies of United Nations system, in particular, COPUOS.[74] As a typical treaty of public international law, the amendments to the [APSCO] Convention shall be adopted by the Council by consensus pursuant to the [APSCO] Convention;[75] after [this APSCO Convention] has entered into force for a period of five years, any member state can apply for withdrawal;[76] [APSCO] shall be dissolved either by an agreement among all its member states or when there are less than four member states.[77]

IV. IMPROVEMENT TO BE MADE BY APSCO

At present, although the APSCO Convention has entered into force and APSCO has officially operated, there are still some problems in the development of APSCO. In order to improve its development, due attention shall be paid to the following points.

A. APSCO Needs More Comprehensive Membership

Although there are seven Member States of APSCO, which is a good starting point, the current Organization is still in its early stage and fails to fully represent the Asia-Pacific region. Moreover, all the seven Member States are not Asian countries.

---

[74] *See* APSCO Convention, *supra* note 7, at art. 24.
[75] *Id.* at art. 27.
[76] *Id.* at art. 33.
[77] *Id.* at art. 34. In contrast, the ESA shall be dissolved if the number of Member States becomes less than five. ESA Convention, *supra* note 18, at art. XXV.

As a result of "political bias, geographical strategy, international competition,"[78] the double application (both military and civilian) of the space technology and the technological gap,[79] there are some difficulties regarding cooperation in space activities. Currently, a number of space-faring countries in the Asia-Pacific region, such as the United States, Russia, India, and Japan have not acceded to APSCO. And it is unpredictable whether these countries would accede to APSCO in the future. Except China, the other Member States have limited space activity capacity,[80] APSCO being a space cooperation organization among developing countries now. Since Chinese space capacity is relatively advanced, the other Member States will probably benefit more than China from the cooperation with China. It not only contributes to the realization of the right of exploration and use of outer space freely which is mentioned in international instruments including Outer Space Treaty, but also allow more nations, especially developing nations to have access to outer space.

In the future, APSCO must enlarge its membership. Only if more States join APSCO, especially space-faring States, can APSCO be worthy of its name and be more successful in cooperation. During the founding process of APSCO and drafting of the APSCO Convention, a lot of nations showed their interests and participated in the process. In 2005, although not being the signatories, Russia, Argentina, Brazil, Malaysia, Philippines, and some other non-member countries attended the signing ceremony of APSCO Convention.[81] Their participation indicates

---

[78] *The Status Quo and the Future of Chinese Space Legislation*, *supra* note 24, at 12.

[79] Ling Shang, et al.,《我国航天国际合作制约因素分析与对策研究》，《自然辩证法研究》，[*An Analysis on the Restrictive Factors of Chinese International Cooperation and the Tactics Study*] 19 (12) STUDIES IN DIALECTICS OF NATURE 47-50 (Dec. 2003).

[80] As the host state of APSCO, China promotes space technology of the country in this region which includes remote sensing. In 2006, China donated Reception Stations of Fengyu Satellite Data Broadcasting System to the Seven Signatory States of APSCO, namely Bangladesh, Indonesia, Iran, Mongolia, Pakistan, Peru, Thailand, demonstrated the strong support of the Chinese Government to APSCO. *See* PEOPLE'S DAILY ONLINE, http://scitech.people.com.cn/GB/25509/55912/71407/71436/4869859.html (last visited Nov. 25, 2009).

[81] Setsuko Aoki, *supra* note 19.

the possibility of expansion for APSCO. Meanwhile, APSCO itself is expecting to have more Member States.[82] Surely, the enlargement depends on a lot of factors, especially the operation and development of cooperation projects and programs in APSCO.

When deciding whether or not to accede to APSCO, nations take a number of factors into consideration, for example, relations with certain nations and international mechanism, sharing of cost, protection of intellectual property, transfer of technology, and so on.

Currently, some mechanisms, such as MCTR, which is an exportation control regime, aims at restricting proliferation of delivery systems for weapons of mass destruction, including delivery systems for ballistic missiles and pilotless aircraft. However, this practice can actually hamper international space cooperation, because missile launching technology is similar to space launching technology. Hence, restriction on missile delivery technology will lead to the restrictions on space launching technology. This is unfavorable for many nations, especially the developing countries to obtain space technology. Although China's legal regulations also have a similar list like that of MCTR, China is not a Member State of MCTR, and some nations like Korea still hesitate in joining APSCO after many invitations.[83] MCTR therefore has hindered the expansion of APSCO.

Other reasons hindering the enlargement of the membership include the huge difference among Asian countries and the geopolitical considerations, etc. "Due to the vastness of the Asia-Pacific region and the myriad" of political, economical, religious, and cultural differences among the nations in this region, apparently it is "difficult to establish a space cooperation organiza-

---

[82] *New space body welcomes all*, CHINA ECONOMIC NET, Dec. 17, 2008, http://en.ce.cn/World/Asia-Pacific/200812/17/t20081217_17695627.shtml.

[83] Sang-Myon Rhee, *Regional Cooperation in Asia Relating to Space Activities, Northeast Asian Issues, in* PROCEEDINGS OF THE SPACE LAW CONFERENCE, ASIAN COOPERATION IN SPACE ACTIVITIES A COMMON APPROACH TO LEGAL MATTERS (Ministry of Information and Communication Technology (Thailand) and the McGill Institute of Air and Space Law, Bangkok, Thailand, Aug. 2-3, 2006).

tion as large as APEC."[84] It is very difficult to establish an Asian Space Agency (ASA) which was proposed by Korean scholar Professor Doo Hwan Kim in 2001. He deems that,

> the necessity of establishing the ASA has arisen from the competition among the Asian countries and the developed countries, such as the USA, Russia, Canada, and EU countries, in the growing Asian space market. It is necessary for the Asian countries to work collaboratively to strengthen cooperation in research of the benefit for all the people in Asia.[85]

However, historically and realistically speaking, due to differences among Asian nations and geographical political situation, "it is extremely difficult to establish a closely cooperative regional organization to include all or the majority of countries in Asia."[86] At present, the global economy is becoming more regionalized and human rights are becoming more universal. Without more regional economic integrative organizations and regional human rights protection mechanisms, Asia falls behind highly integrated Europe and even Africa and Latin America. Hence, although the idea of establishing a universal ASA with all or the majority of Asian countries as its Member States presents advantages, it is difficult to realize the idea in the foreseeable future.

B. APSCO Should Develop Practical and Successful Space Cooperation Programs as soon as possible

An international organization can be a successful one only if its cooperation is in concrete programs and the results are satisfactory. After years of efforts, small satellites were launched successfully in 2008 under the framework of the Small

---

[84] *The Status Quo and the Future of Chinese Space Legislation*, *supra* note 24, at 12.

[85] *The Status Quo and the Future of Chinese Space Legislation*, *supra* note 24, at 12 (citing Doo Hwan Kim, *The Possibility of Establishing an Asian Space Agency,* SINGAPORE J. INT'L & COMP. L. 214-226 (2001). *See also* Doo Hwan Kim, *The National Space Program, Policy and Legislation in Korea*, 2004 SPACE LAW CONFERENCE PAPER ASSEMBLE 91 (Beijing, China, Apr. 25-27, 2004). In this paper, Professor Kim has already changed ASA`s name to Asian Space Development Agency.

[86] *The Status Quo and the Future of Chinese Space Legislation*, *supra* note 24, at 12.

Multi-Mission Satellite Project.[87] This successful cooperation is a solid basis for the development of APSCO.

The development and cooperation program of APSCO is crucial both to the economic development of Member States and to the future of APSCO.[88] So, in line with the goal of APSCO, strategic planning, which includes selecting projects, developing a plan for each Member State, and then enforcing the plan, is of great significance. Since there are huge political, economic, and technological differences among Member States, and space technology and its application needs huge investments and high technology, the plan and scheme should adapt to the Member States' need in developing space technology.[89] In December 2008, the first council meeting of APSCO adopted 6 project suggestions. These 6 suggestions were initiated by APSCO Project Planning Commission that was organized by APSCO's Interim Secretariat. These projects are divided into four categories, i.e., space science research project, space technology cooperation project, space technology application project, and education project. In these 6 projects, the first two are: (i) Spatial Data Sharing Platform and Its Application Pilot Project and (ii) APSCO Applied High-Resolution Satellite Project.[90]

C. APSCO Should Enhance Cooperation with Other Asia-Pacific Space Cooperation Fora

Apart from developing international cooperation in accordance with the APSCO Convention, we think that APSCO should make greater efforts to enhance cooperation with other Asian space cooperation fora. Although establishing ASA or a space cooperation organization as large as APEC is very difficult, APSCO should still promote Asian regional space cooperation, especially with APRSAF in which Japan plays a leading role. This will strengthen Asian countries` capacity to deal with

---

[87] *New space body welcomes all*, *supra* note 82.

[88] Yang Weiyuan, *APSCO Strategic Planning,* ASIA-PACIFIC SPACE OUTLOOK 17 (Sept., 2005).

[89] *Id.*

[90] *The Interim Secretariat of APSCO Holds the Second Meeting of the Ad Hoc Committee for Program Planning for APSCO* 4, ASIA-PACIFIC SPACE OUTLOOK (Dec. 2008).

natural disasters and develop national economy through space technology and this will also enhance peace and safety in Asia. As Professor Aoki said, Europe has already set a good example for us in this area.[91] In Asia, on the present basis of cooperation under U.N. and other frameworks (they are mainly about remote sensing data of disaster diminution and environmental surveillance.), it is necessary to harmonize the two existing regional platforms: APSCO and APRSAF. Each of them could participate in the other's activities[92] and then consider the possibility of further and deeper cooperation.

D. An Asia-Pacific Center for Space Law Should be Established

One of the most successful achievements of the European Space Agency is the establishment of the European Center for Space Law (ECSL). This Center makes great contributions in providing legal services on space law, through providing discussion forums and teaching support (summer school for space law training), constructing communication sites for Member States and a database of space law.[93] The author shares a common view with Professor Doo Hwan Kim about establishing an Asian Center for Space Law, i.e., it is necessary to reinforce the education and training of outer space law in the space cooperation organization framework. Prof. Kim proposed the idea in 2001: Asia must establish an Asia Center for Space Law, which is responsible for the education, training and research of space law in Asia. He believed that the establishment of the Center was a starting point of the future ASA.[94] The author considers that it seems to be more practical and feasible to establish an Asia-Pacific Center for Space Law (APCSL) in the framework of

---

[91] Setsuko Aoki, *supra* note 19.

[92] *Id.* We can not consider that APSCO and APRSAF are of a competing nature, because the two forms of cooperation are of a different nature, and as one of the leading countries of the APSCO, the China National Space Administration has been participating in the conferences and activities of the APRSAF.

[93] *The European Space Agency—Present and Future*, *supra* note 45, at 198.

[94] *The National Space Program, Policy and Legislation in Korea*, *supra* note 85, at 91.

APSCO in the near future.[95] With regard to its mission, Asia-Pacific Center for Space Law could learn from both ECSL and International Institute of Space Law,[96] it can not only hold Space Law Summer Training Courses and other space law training courses, promoting the research and understanding of space law in Asia-Pacific region, but also become legal consultant to APSCO. This will promote the further development of APSCO Law. However, the establishment of the APCSL depends on a common political agreement from all APSCO Member States, which will take time.

V. THE RELATIONSHIP BETWEEN THE LAW OF APSCO AND THE GENERAL SPACE LAW AND PACIFIC RIM SPACE LAW AND ACTIVITIES

Pacific Rim includes the countries and regions in the Pacific Ocean and alongside the Pacific coast, which is similar to the Asia-Pacific region according to the geographical concept. However, the geographical scope of the Asia-Pacific region is even larger, that is, it includes not only the Pacific Rim countries and regions, but also the Asian land-locked countries and regions. For example, among the 7 States Parties of APSCO, it is hard to say that Bangladesh, Iran, Mongolia, and Pakistan are Pacific Rim countries. Pacific Rim is a region with some of the world's fastest-growing economies and biggest booming space industries.

A. The Law of APSCO has Its Own Characteristics

The law of APSCO, which acts as the rules of the space cooperation of the Asia-Pacific developing countries, is not only different from the legal framework of international space station led by U.S., but also different from the legal regulations of

---

[95] *See* Haifeng Zhao, ed., *The Current Situation and Future of the Teaching and Research of Outer Space Law in China*, 1 CHINESE SPACE LAW REVIEW 55 (Harbin Institute of Technology Press, 2006).

[96] European Center for Space Law was established in 1989 by ESA, and the International Institute of Space Law was established in 1960 within the framework of International Astronautical Federation. ESA, http://www.esa.int/SPECIALS/ECSL/SEMPZMGHZTD_0.html; http://www.iislweb.org/ (last visited Nov. 23, 2009).

co-operation between developed countries of the European Space Agency (ESA). It is a law for implementing the principles of international cooperation of the Outer Space Treaty and the Declaration on International Cooperation of the UNGA, and for promoting the building of space capacity and the right of accessing to the space equally for developing countries. It is inspired by the useful provisions of the ESA Convention. At the same time, it has its own distinct characteristics, for example, respecting the equal sovereignty of States and seeking consensus in decision-making mechanisms, and so on.

B. The Law of APSCO Complies with and Enriches General Space Law

The relationship between the law of APSCO and the general space law is the same as between special law and general law. First of all, the law of APSCO should comply with the basic principles of the general space law, especially the five Treaties of international space law and the relevant principles of the U.N. General Assembly, in particular, the principles which have become the international customary rules. At the same time, the practice of APSCO will also enrich the contents of general space law. If APSCO declares its acceptance of the rights and obligations provided for in some space treaties, it should also comply with the relevant provisions of the treaties.[97] In particular, under specific circumstances, through its Member States, some articles of the space treaties can also apply to APSCO. For example, according to Article 13 of the Outer Space Treaty, the provisions of this treaty shall apply to the activities of States Parties to the treaty in the exploration and use of outer space, whether such activities are carried on by a single State Party to the treaty or jointly with other States, including cases where they are carried on within the framework of international inter-

[97] ESA had declared its acceptance of the rights and obligations provided for in some international space treaties. *See e.g.,* Outer Space Treaty, *supra* note 6; and Convention on Registration of Objects Launched into Outer Space, *opened for signature* Nov. 12, 1974, 28 U.S.T. 695, 1023 U.N.T.S. 15. It is likely that APSCO might become a party to some international space treaties when its activities have developed to a certain extent.

governmental organizations (IIGO).[98] Any practical question arisen in connection with activities carried on by IIGO in the exploration and use of outer space shall be solved by the State Parties to the treaty either with the appropriate international organization or with one or more Member States of that international organization, which are parties to this treaty. Thus, the Outer Space Treaty will apply to APSCO through its State Parties.[99] Article 12 of the Convention on International Liability for Damage Caused by Space Objects also stipulates the problem of damages and compensations in cases where damages are caused by the IIGOs or the IIGOs are damaged.[100] If any IIGO pursuing space activities accepts the rights and duties of the Liability Convention and half of its Member States are the States Parties of the Liability Convention and the Outer Space Treaty, the Liability Convention will apply to the IIGO except for some exceptional articles. If the IIGO is damaged, the States Parties of the IIGO, who are also Member States of the Liability Convention, can claim the compensation in accordance with the provisions of the Liability Convention. If an IIGO is responsible for the damage under the provisions of the Liability Convention, The IIGO and its Member States to the Liability Convention shall be jointly and severally liable, but (1) any compensation for such damage shall be firstly claimed to the IIGO; (2) only when IIGO does not pay for the damages stipulated by the agreement or the decision, can the damaged States claim for the compensation from the Member States of the Liability Convention.

C. APSCO Will Promote the Development of Space Law and Activities in the Pacific Rim

The establishment of APSCO and the space cooperation among the APSCO Member States will promote the development of space activities and space capacities of Member States. Some Member States are located in the Pacific Rim, and will

---

[98] Outer Space Treaty, *supra* note 6, at art. 13.

[99] Just as it can apply to ESA. *See* NANDASIRI JASENTULIYANA, ET AL., 1 MANUAL ON SPACE LAW 433, (Oceana Publication Inc., 1979).

[100] Convention on International Liability for Damage Caused by Space Objects, art. 12, *opened for signature* Mar. 29 1972, 24 U.S.T. 2389, 961 U.N.T.S. 187.

also contribute directly to the space activities of Pacific Rim. As the international law between the Member States, the law of APSCO will play an active role in promoting the cooperation in space and the development of space law among its Member States. During the process of the establishment of APSCO and the elaboration of the APSCO Convention, we have seen that a lot of countries of the Pacific Rim like Russia and Korea and so on, paid much attention to APSCO and took part in the activities of it establishment. Moreover, APSCO also attaches much importance to the establishment of external relations of cooperation, thus, further space cooperation among APSCO, countries in Pacific Rim and other space cooperation forum in Asia-Pacific region can be expected, and will be a stimulus to the development of space activities in Pacific Rim.

VI. CONCLUSION

Until recently, China has seldom been designated as a host state of international organization. Apart from a few international organizations not widely known, The Shanghai Cooperation Organization is the first China-based international organization with wide influence on international relations. APSCO is an important inter-governmental international organization, which was initiated and promoted by China and other nations. We look forward to the rapid development of APSCO and to the prospects of China in becoming the host state of more international organizations, which will allow China to assume even more responsibilities as the world's largest developing country.[101]

As the second multi-regional inter-governmental space cooperation organization in the world, APSCO is a unique new framework, its development depends on the smooth implementation of the space cooperation project among Member States, and on the continuous enlargement of its Member States. To some extent it also depends on the relationship among China, the United States, Russia, Japan, India, and other space-faring countries. Finally, it also depends on its own legal practice. The

[101] *The Status Quo and the Future of Chinese Space Legislation*, *supra* note 24, at 13.