



PRC Space Law

Current Status and Overview - March 2015

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INTRODUCTION

The United Nations Office for Outer Space Affairs (UNOOSA) held a workshop in Beijing, China, from 17-21 November of last year. The workshop aimed at supporting countries in understanding and abiding by international space law requirements, optimizing the utilization of outer space, and making space safety a priority. The workshop covered many different topics related to space law: developments in space law and policy, space law and commercial space activities, promoting national space legislation, and space capacity and information.¹ Space activities have increased in the PRC in recent years, and the UNOOSA workshop reflected the evolution of China's position toward space activity.

While China is a participant in the international space law regime, it remains the world's only country with a space flight program without a corresponding space law. China recently declared its determination to remedy this situation, and a national space law has been listed in the national legislation plan. This article aims at providing an introduction to the present stage of PRC space activities and the surrounding national and international legal environment.

1 China's Space Activities

1.1 Actors Involved in PRC Space Activities

Particular to China is the close interplay of governmental bodies, academia, and business entities.

¹ See 2014 Information Note.



(image: Adam Rice, <http://goo.gl/paQyAN>)

This *modus operandi* applies explicitly to the space sector.² From the governmental side, the body most directly concerned with space activities is the China National Space Administration (CNSA)³ established in 1993.⁴ The CNSA's responsibilities include the management and coordination of non-military space activities and international cooperation.⁵ Another governmental body often concerned with space activities is the PRC State Administration for Science, Technology and Industry for National Defence.⁶ The

² See 2011 White Paper.

³ 国家航天局 Guójiā Hángtiān Jú.

⁴ See <http://baike.baidu.com/view/6524.htm>, accessed on 3 March 2015.

⁵ <http://www.cnsa.gov.cn/n1081/n7469/n308501/index.html>, accessed on 3 March 2015.

⁶ 中华人民共和国国家国防科技工业局 Zhōnghuá Rénmín Gònghéguó Guójiā Guófáng Kējì Gōngyè Jú, until 20078

PRC Industry and Information Technology Ministry⁷ exercises supervision over these two bodies. As far as international cooperation is concerned, the [PRC Ministry of Foreign Affairs](#)⁸ may be involved in space activities as well.

In the academic and research sector, the Chinese National Space Science Center ([NSSC](#))⁹, a branch of the Chinese Academy of Sciences, assumes the leading role in space-related scientific research. The center was established in 1958, and was soon involved in developing Dongfanghong-1,¹⁰ the first satellite launched into orbit by the PRC in 1970.¹¹

The PRC has developed and opened its space market over the last few years and as a consequence, space activities are not conducted exclusively by the government and its agents anymore. Key public sector players include the China Aerospace Science and Technology Corporation ([CASC](#))¹² and the China Aerospace and Industry Corporation ([CASIC](#))¹³. Both are large, state-owned enterprise (SOE) groups. Together they employ more than 300,000 personnel and have assets worth over CNY 440 billion. CASC focuses on the research, design, manufacture and launch of space systems such as launch vehicles, satellites, manned spaceships and missiles.¹⁴ CASIC's core businesses are, among others, developing, creating and manufacturing all kinds of missiles, rockets, as well as space products. It is also involved in

named PRC Committee for Science, Technology and Industry for National Defense 中华人民共和国国防科学技术工业委员会 *Zhōnghuá Rénmín Gònghéguó Guófáng Kēxué Jìshù Gōngyè Wěiyuánhùi*.

⁷ 中华人民共和国工业和信息化部 *Zhōnghuá Rénmín Gònghéguó Gōngyè hé Xìnxìhuà Bù*.

⁸ 中华人民共和国外交部 *Zhōnghuá Rénmín Gònghéguó Wàijiāobù*.

⁹ 国家空间科学中心 *Guójiā Kōngjiān Kēxué Zhōngxīn*.

¹⁰ 东方红 *Dōngfāng Hóng*, literally "The East is Red", after the title of a popular song of that era. The satellite actually transmitted this song to the earth.

¹¹ See <http://english.nssc.cas.cn/au/ac/>, accessed on 3 March 2014.

¹² 中国航天科技集团公司 *Zhōngguó Hángtiān Kējì Jítuán Gōngsī*.

¹³ 中国航天科工集团公司 *Zhōngguó Hángtiān Kē-Gōng Jítuán Gōngsī*.

¹⁴ See <http://baike.baidu.com/view/583488.htm>, accessed on 3 March 2015.

projects related to manned spaceflight and lunar exploration.¹⁵

In December 2014, CASC co-hosted a forum among 1,300 private enterprises. The initiative aimed at increasing cooperation between SOEs and actors from the private sector. This should boost private companies involved in space technology development. Enhanced synergy is expected in areas such as satellite applications and high-end equipment technologies. The Chinese government promotes the development of national strategic emerging industries and the export of space technology to other countries, especially third-world countries.¹⁶

1.2 Space Transportation Systems

Launching objects from the surface of the earth into orbit and beyond requires high-tech infrastructures and carrying systems which only a few nations possess. No less than three cosmodromes were in service in the PRC by 2011, placed in Jiuquan, Xichang, and Taiyuan, respectively.¹⁷ With the Wenchang Satellite Launch Center (WSLC)¹⁸, a fourth cosmodrome placed in Hainan province became basically operational from October 2014.¹⁹ The WSLC profits from a nearer distance to the equator and hence greater launching speed induced by the earth's revolution, significantly enhancing the effectiveness of China's carrying systems.

Carrying systems are comprised of the Long March (LM) carrying rocket series.²⁰ Rockets of this type completed a total of 67 launches in the period from 2006 to 2011, sending 79 spacecraft vehicles successfully into their planned orbit.²¹ Operational are

¹⁵ See <http://baike.baidu.com/view/607722.htm>, accessed on 3 March 2015.

¹⁶ Named in the 2011 White Paper are Nigeria, Venezuela, Pakistan, Bolivia, Laos, and Belarus.

¹⁷ 2011 White Paper: 酒泉 *Jiǔquán*, 西昌 *Xīchāng*, 太原 *Tàiyuán*.

¹⁸ 文昌卫星发射中心 *Wénchāng Wèixīng Fāshè Zhōngxīn*.

¹⁹ See <http://baike.baidu.com/view/977096.htm>, accessed on 3 March 2015.

²⁰ 长征 *chángzhēng*.

²¹ 2011 White Paper. See also <http://baike.baidu.com/view/10940629.htm>, accessed on 3 March 2015. Alone in 2011, China conducted 17 rocket launches, delivering 19 space vehicles, see U.N. Doc A/AC.105/1008/Add.1, p. 2.

rockets of the LM Series Nos. 2-4. The LM Series Nos. 5-7 series were scheduled for realization by 2016, but are not operational at the time of this publication.²² Further, LM No. 11, a large solid-fuel rocket, is scheduled for launch in 2015, and LM No. 9, a super-heavy carrier rocket, is currently under study.²³

1.3 Satellites

China disposes of an increasingly dense framework of earth satellites, providing data for meteorology, oceanology, disaster prevention and mitigation, and environment monitoring applications.²⁴ Also, the Beidou²⁵ Navigation Satellite System (BDS) establishes a geo positioning system in competition with the U.S.-controlled Global Positioning System (GPS). BDS is currently operational at a regional level. Global coverage is scheduled for 2020, when the BDS system will be completed with five geostationary satellites and 30 satellites placed in other orbits.²⁶ China plans to enhance the commercialization and self-sufficiency of space data and to develop related industries.²⁷ China, however, does not disregard scientific research either. Satellites for technical experiments, including a hard X-ray telescope satellite and a satellite for quantum science experiments to detect dark matter, are prospected in a 2011 government white paper.²⁸

1.4 Space Station and Manned Space Flight

The Shenzhou²⁹ spaceship program aims at delivering astronauts into the earth's orbit to conduct scientific experiments and gain experience in manned space flights. After four unmanned test flights since 1999, Shenzhou No. 5 sent a Chinese astronaut into orbit for

the first time on 15 October 2003.³⁰ Shenzhou No. 6, in October 2005, realized another manned flight of nearly five days, and Shenzhou No. 7 professed the program's first spacewalk in September 2008.³¹ A next step was taken in late 2011, when the unmanned Shenzhou No. 8 docketed with Tiangong³² No. 1, a "target vehicle" hosting a small space laboratory launched into permanent orbit one month before.³³ The following Shenzhou Nos. 9 and 10 missions reiterated this success, this time with astronauts on board, in June of 2012, and 2013, respectively.³⁴

The interplay of the Shenzhou missions and Tiangong space laboratories is to pave the foundation for a future space laboratory and space station.³⁵ Tiangong No. 2, a larger space laboratory, is scheduled for launch in 2016.³⁶ Ultimately, the in-orbit construction of Tiangong No. 3 is expected to begin in 2018, and, after completion in 2022, it will form the basis of a full-sized, multi-module space station.³⁷

Chinese success in outer space activities, and American disinterest in such adventures, have roused the interest of European nations in closer cooperation.³⁸ In 2010, the European Space Agency (ESA) declared its intention to invite China, India and South Korea to join the International Space Station (ISS) partnership. However, United States legislation prevents NASA cooperation with China on space

²² 2011 white Paper. For the realisation stage see <http://baike.baidu.com/view/10940629.htm> (LM No. 5) <http://baike.baidu.com/view/1896773.htm> (LM No. 6) and <http://baike.baidu.com/view/3806472.htm> (LM No. 7), accessed on 3 March 2015.

²³ <http://baike.baidu.com/view/10212332.htm> (LM No. 11), <http://baike.baidu.com/view/8883391.htm> (LM No. 9), accessed on 3 March 2015.

²⁴ U.N. Doc A/AC.105/1008/Add.1, pp. 2–3.

²⁵ 北斗 *Běidǒu*, the Chinese designation of the asterism "Big Dipper" often used in non-instrumental navigation.

²⁶ <http://baike.baidu.com/view/590829.htm#4>, accessed on 3 March 2015.

²⁷ 2011 White Paper.

²⁸ 2011 White Paper.

²⁹ 神舟 *Shénzhōu*, literally "Divine Vessel".

³⁰ <http://baike.baidu.com/view/2008774.htm>, accessed on 4 March 2015.

³¹ <http://baike.baidu.com/view/182566.htm> (Shenzhou No. 6), <http://baike.baidu.com/view/1404906.htm> (Shenzhou No. 7), accessed on 4 March 2015. See also Spaceflight Now of 25 June 2010.

³² 天宫 *Tiāngōng*, literally "Heavenly Palace".

³³ See <http://baike.baidu.com/view/4412776.htm> (Shenzhou No. 8) and <http://baike.baidu.com/view/1891510.htm> (Tiangong 1), accessed on 4 March 2015.

³⁴ <http://baike.baidu.com/view/1903649.htm> (Shenzhou No. 9), <http://baike.baidu.com/view/1888574.htm> (Shenzhou No. 10), accessed on 4 March 2015.

³⁵ 2011 White Paper.

³⁶ <http://baike.baidu.com/view/2252476.htm>, accessed on 4 March 2015.

³⁷ E&T of 11 September 2014. The information on Baike-Baidu has not yet been updated, see <http://baike.baidu.com/view/2677204.htm>, accessed on 4 March 2015.

³⁸ Spiegel Online of 8 February 2013.

projects “due to Chinese espionage”³⁹, thwarting any Chinese participation in the ISS programme. This could prove an unwise policy, because ISS will reach the end of its normal lifetime in 2020, and prolonged operation is not yet secured.⁴⁰

1.5 Lunar Program

After ten years of preparation, the CNSA officially launched the Chinese Lunar Exploration Program (CLEP) in 2004.⁴¹ The CLEP is divided into three phases.⁴²

The first phase aims at launching two lunar orbiters. A first lunar orbiter was launched on 24 October 2007, and a second one on 1 October 2010. Both launches were conducted successfully.

The second phase scheduled for 2007-2016 partially overlaps with the first phase. The goal in this second phase is to launch spacecrafts that are able to soft-land on the moon and deploy lunar rovers. In its course, a third spacecraft successfully soft-landed on the moon on 14 December 2013. This spacecraft also conducted some analysis of the lunar surface, including the distribution of useful elements and estimates of their abundance.⁴³

The third and last phase of the CLEP scheduled for 2016-2020 consists in sending an unmanned sample return mission to the moon. A first such mission is planned for 2017.⁴⁴ The ultimate objective of the CLEP is to send a manned mission to the moon in the period 2025-2030.

³⁹ See Spaceflight Now of 25 June 2010, Spiegel Online of 8 February 2013 and Universe Today of 15 January 2014.

⁴⁰ Nature.com of 14 May 2014.

⁴¹ Official site:

<http://www.cnsa.gov.cn/n1081/n7499/n314807/>. CLEP is also called the "Lady in the Moon-Project" 嫦娥工程 *Cháng'é Gōngchéng* in Chinese.

⁴² It follows a summary of

<http://baike.baidu.com/view/2653854.htm>, accessed on 4 March 2014.

⁴³ See <http://english.cssar.cas.cn/op/ChangeOne/>, accessed on 4 March 2015.

⁴⁴ See also Universe Today of 15 January 2014.

2 Principles of China's International Cooperation

China's fundamental policies towards international cooperation in space activities are outlined in a 2011 White Paper. The paper's language is ambiguous. While highlighting national sovereignty in space exploration projects, the importance of international cooperation among all conceivable stakeholders is stressed too. Also, while a special focus should be put on the Asia-Pacific region, other regions of the world should not be neglected either. And while China vows to strengthen space cooperation with developing countries, it “takes seriously” cooperation with developed countries too.

China supports activities in the U.N. system to develop peaceful use of outer space, and it stresses the importance of U.N. Resolution 51/122 in that regard.

⁴⁵ Given the malleable language pertinent to U.N. documents, together with the above, the overall impression is that China simply does not want, or is not ready yet, to offer a more focused approach towards international cooperation.

3 China's Multilateral Engagement

3.1 U.N. Mechanisms

3.1.1 COPUOS

In 1959, the U.N. created the Committee on the Peaceful Uses of Outer Space (COPUOS). It is the U.N.'s only entity concerned with developing international space law. With 77 member states, it is also one of the largest committees of the U.N. system.

⁴⁶ China became a member of COPUOS in 1980, when membership was enlarged from 47 to 53.⁴⁷ China is also active in the COPUOS scientific and Technical Sub-committee and Legal Sub-committee.⁴⁸ Beside COPUOS, the United Nations Inter-Agency Meeting on Outer Space Activities convenes annually to discuss current and future activities, emergent technologies

⁴⁵ For that resolution see *infra* at 3.3.

⁴⁶

<http://www.unoosa.org/oosa/en/COPUOS/members.html>, accessed on 4 March 2015.

⁴⁷ U.N. Doc. A/RES/35/16, available online at http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/35/16, accessed on 4 March 2015.

⁴⁸ 2011 White Paper.

of interest, and other related matters. The meeting issues a report for consideration by COPUOS.⁴⁹

3.1.2 U.N.-SPIDER (Disaster Management)

The United Nations Platform for Space-based Information for Disaster Management and Emergency Response ([U.N.-SPIDER](#)) was created by a resolution of the U.N. General assembly in late 2006.⁵⁰ Its purpose is to provide universal access to space-based information and services relevant to disaster management.⁵¹

A SPIDER office opened in Beijing in 2010. Through this office, China has provided drought monitoring products to the “Horn of Africa”, and contributes to the regional disaster mitigation effort by offering training, capacity building, data services, disaster emergency responses, QDGS (Quick Draw Graphics Systems), and other services.⁵²

3.1.3 ISWI

The International Space Weather Initiative ([ISWI](#)) is a program of international cooperation to advance space weather sciences.⁵³ The International Space Weather Meridian Circle Programme initiated by China has been included in ISWI.⁵⁴ The program aims to observe space weather along a longitude of 120 degrees in the east, and 60 degrees in the west. Accordingly, a cooperation agreement for the project has been signed with Brazil, Canada, the Russian Federation and the U.S. In May 2011, the Meridian Project’s first rocket for space exploration was successfully launched from Hainan province. China

⁴⁹ <http://www.uncosa.unvienna.org/uncosa/en/index.html>, accessed on 4 March 2015.

⁵⁰ U.N. Doc. A/RES/61/110, available online at http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/61/110, accessed on 4 March 2014.

⁵¹ <http://www.unoosa.org/oosa/en/uns spider/index.html>, accessed on 4 March 2015.

⁵² 2011 White Paper.

⁵³ <http://www.iswi-secretariat.org/>, accessed on 4 March 2014.

⁵⁴ 国际空间天气子午圈计划 *Guóji Kōngjiān Tiānqì Zǐwǔquān Jìhuà*, see <http://baike.baidu.com/view/6446163.htm>, accessed on 4 March 2015.

also organized some conferences related to the ISWI agenda.⁵⁵

3.2 U.N. Treaties

Over the years, COPUOS has issued two conventions, one treaty, and two agreements. The 1967 [Outer Space Treaty](#)⁵⁶ set the basic framework for international space law. All subsequent instruments are based on the 1967 Outer Space Treaty. China acceded to this treaty on 30 December 1983.⁵⁷ On its basis, China identifies 10 fundamental principles of international space law:

1. Common profit: the exploration and usage of outer space should benefit all nations, with no regard to their stage of economic or scientific development;
2. Independent exploration and usage: each country should on the basis of equality and international law explore and use outer space;
3. Non-appropriation: it is not admissible to appropriate outer space through claims to sovereignty, usage, occupation or any other means;
4. Limiting militarization: not to place or install in the earth orbit or on celestial bodies nuclear weapons or other weapons of mass destruction;
5. Rescue astronauts: When astronauts have an accident, are endangered or compelled to make emergency landings, all possible support must be rendered to them, and they must be returned to their senders’ states as swiftly as possible;
6. State responsibility: each country shall assume international responsibility for its space activities, with no regard to these activities being entertained by government bodies or non-governmental bodies;
7. Jurisdiction and right of control over space objects: the registration state of objects

⁵⁵ U.N. Doc A/AC.105/1008/Add.1, pp. 3-4.

⁵⁶ For the full names of U.N. treaties see annex.

⁵⁷ See <http://baike.baidu.com/view/1087566.htm#3>, accessed on 4 March 2015. The information provided by the U.N. Treaty Office, on the other hand, identifies the 12 January 1984 as the date of effect for China. China submitted accession notes to all three depositary states, hence the confusion.

launched into outer space retains jurisdiction and right of control over objects in outer space;

8. Registration of outer space objects: all states entertaining outer space activities consent to inform the U.N. Secretary-General of the status, location and results of their space activities to the largest possible and actually feasible extent;
9. Protecting the outer space environment: space activities should avoid harmful pollution and prevent extra-terrestrial objects leading to unfavourable changes in the earth's environment;
10. International cooperation: states should enter into cooperation and mutual assistance when entertaining space activities.⁵⁸

In 1988, China accepted three further COPUOS instruments as binding qua accession: the 1968 Rescue Agreement, the 1972 Liability Convention, and the 1974 Registration Convention. On the other hand, China has not yet ratified the fifth instrument drafted by COPUOS, the 1979 Moon Agreement. A reason for China's reluctance could be that some provisions of the Moon Agreement overstretch the principles outlined in the 1967 Outer Space Treaty: States should comprehensively reveal gained information to other parties, natural resources of the moon are exempt from national appropriation, and all space vehicles, equipment, facilities, stations and installations on the moon shall be open to other parties. China is not alone in its skepticism against the 1979 Moon Agreement. Only 17 states have ratified it at the time of writing.

3.3 U.N. Declarations and Principles

The five space treaties, conceived as instruments binding their state parties, are supplemented by five resolutions of the U.N. General Assembly adopted between 1963 and 1993.⁵⁹ They concern legal principles in the exploration and uses of outer space, the use of artificial earth satellites for international broadcasting, the remote sensing of the earth, and the use of nuclear power sources in outer space. The last such resolution, 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", was quoted by China as a source of the basic principles governing international space cooperation. However, all these five documents are issued in the form of resolutions of the U.N. General Assembly, which have no binding legal force under international law according to the 1945 U.N. Charter.

3.4 Non-U.N. Multilateral Mechanisms

3.4.1 International Organizations

China is member to a number of international organizations established outside the U.N. framework that are concerned, partially or in total, with space activities. These organizations include the International Telecommunications Satellite Organization ([ITSO](#)), the International Mobile Satellite Organization ([IMSO](#)), and the International Telecommunication Union ([ITU](#)). Worth a special note is China's engagement in the Asia-Pacific Space Cooperation Organization ([APSCO](#)).⁶⁰ The underlying Convention was signed in 2005, and deposited with the government of China. APSCO was operational from 2008 when its head office opened in Beijing.⁶¹ Although APSCO comprises only Bangladesh, China, Iran, Mongolia, Pakistan Peru and Thailand as member states at the time of writing, this limited membership offers China an opportunity to formulate a new approach towards multilateral space cooperation outside the established channels.

China further participates in activities organized by the International Committee on Global Navigation Satellite Systems, International Space Exploration Coordination Group, Group on Earth Observations, World Meteorological Organization and other inter-governmental international organizations.⁶²

3.4.2 Other Mechanisms

China partakes in many international cooperation mechanisms that, although institutionalized to a certain extent, have no international legal personality

⁵⁸ <http://baike.baidu.com/view/1087566.htm#2>, accessed on 4 March 2015.

⁵⁹ See annex.

⁶⁰ 亚太空间合作组织 *Yàtài Kōngjiān Hézuò Zǔzhī*.

⁶¹ scitech.people.com.cn of 18 December 2008.

⁶² 2011 White Paper.

of their own and hence do not qualify as international organizations. The Inter-Agency Space Debris Coordination Committee (IADC) was initiated in 1993. It is an international forum to coordinate the efforts to reduce man-made and natural debris in space among 13 national space agencies, including the U.S.' NASA, Russia's ROSCOSMOS, and China's CNSA.⁶³ IADC is primarily a scientific forum to coordinate research and provide knowledge for deciding related policies.⁶⁴ China attaches importance to the space debris issue related to its own outer space activities and tries to minimize the adverse impact of its missions;⁶⁵ it also actively contributes to the work of IADC.⁶⁶ China's independently developed space debris protective design system has also been incorporated into the IADC protection manual.⁶⁷

The International Charter on Space and Major Disasters came into operation on 1 November 2000. It aims at providing data to states or communities whose populations are exposed to an imminent risk, or are already victims, of natural or technological disasters. Data provided by space facilities shall enable the participation of the signatories in the organization of emergency assistance or reconstruction and subsequent operations.⁶⁸ Chinese CNSA and 14 other national space agencies have signed this charter to date.⁶⁹ China sends representatives on week-long duty every two months to provide emergency relief and has contributed to achieving the charter's aims.⁷⁰

China further takes part in activities organized by the International Astronautical Federation, International Committee on Space Research, International Academy of Astronautics, and other non-governmental international space organizations and academic institutes.⁷¹

⁶³ <http://www.iadc-online.org/>, accessed on 5 March 2015.

⁶⁴ <http://www.iadc-online.org/impressum.html>, accessed on 5 March 2015.

⁶⁵ 2011 White Paper.

⁶⁶ U.N. Doc A/AC.105/1008/Add.1, p. 4.

⁶⁷ 2011 White Paper.

⁶⁸ Charter Art. VII, Text of the Charter available at <https://www.disasterscharter.org/web/guest/text-of-the-charter>, accessed on 5 March 2015.

⁶⁹ <https://www.disasterscharter.org/web/guest/charter-members>, accessed on 5 March 2015.

⁷⁰ U.N. Doc A/AC.105/1008/Add.1, p. 4.

⁷¹ 2011 White Paper.

4 China's Bilateral International Engagement

China has a long tradition of entering into bilateral cooperation agreements with other states related to space activities. Three sources of bilateral treaties have been assessed for this publication, the content of which are largely not overlapping: (1) the treaties officially registered with the Treaty Office of the U.N.,⁷² (2) the bilateral treaties with Chinese participation mentioned in the document 1999 U.N. List of Space Treaties, and (3) the documents referred to in the 2011 White Paper.⁷³

These agreements may concern the liability for damages resulting from specific activities, the organization of international workshops and conferences, inter-agency exchange and cooperation, technical standards, international trade in commercial launch services, or cooperation in space technology in general.

Bilateral partners include the U.S./NASA, France, Germany, the UK, the Netherlands, Venezuela, and Argentina. Particularly advanced according to the 2011 White Paper is space cooperation with Russia (namely manned space flight), with the European Space Agency (ESA) (notably the Chinese Lunar Exploration Program [CLEP]), and Brazil (especially on earth resource satellites). China has also given free receiving stations for space data to a number of countries.

5 Domestic Regulations

5.1 Existing Regulations

In the absence of a comprehensive law, outer space activities are to date regulated by impromptu administrative regulations issued by the State Administration of Science, Technology and Industry for National Defense.⁷⁴ The first such regulation dates back to 2001, and concerns the procedure for the registration of objects launched into outer space. It aims to implement the obligations of China arising from its participation in the 1974 Registration

⁷² See <https://treaties.un.org>, search for "treaty" + subject term "Outer Space" + participant "China".

⁷³ These treaties can be found in the annex.

⁷⁴ The former Committee for Science, Technology and Industry for National Defense, see *supra* at 1.1

Convention. A second regulation followed in 2002 on the licensing of civil space activities. It regulates the responsibility of private actors in conducting outer space activities and hence implements some provisions of the 1967 Outer Space Treaty. A third, unpublished regulation of 2009 concerns the mitigation of and protection from space debris. Although there are only loose regulations on space debris reduction in the 1967 Outer Space Treaty, this 2009 regulation reflects China's engagement in the Inter-Agency Space Debris Coordination Committee (IADC). All three regulations hence appear as the implementation of commitments China has already made in the international plane.

Besides these explicit legal documents, a range of policy documents exists to address outer space activities. An example are the "Opinions on Promoting the Development of the Satellite Applications Industry" issued by the China National Space Administration on 18 November 2007.⁷⁵ Such policy documents on outer space activities may also be issued by the State Administration of Science, Technology and Industry for National Defence.⁷⁶

5.2 Prospected Space Law and Future Regulations

China is the only space power and U.N. veto power that has not yet enacted a national space law.⁷⁷ However, China began research on space legislation already in 1998, always with a view to implement its international obligations on the national plane. This is also true for the prospected Space Law, that has entered the national legislation plan and should be enacted before 2020. China sees itself as a responsible space country that implements and respects its obligations assumed under international treaties and regulations.⁷⁸

However, China's future space law will undoubtedly also have to satisfy national needs. The development of China's space industry abides by and serves the

⁷⁵ See <http://www.cnsa.gov.cn/n1081/n308674/n308957/index.html> for more policy documents.

⁷⁶ See <http://www.sastind.gov.cn/n4235/index.html>.

⁷⁷ See <http://www.unoosa.org/oosa/en/FAQ/splawfaq.html>, accessed on 5 March 2015.

⁷⁸ People's Daily of 18 November 2014.

overall national development strategy. It is based on the principles of scientific development, independent development, peaceful development, innovative development, and open development. The principle of independent development means that China relies primarily on its own capabilities to develop its space industry to meet the needs of modernization.

⁷⁹Therefore, the prospected space law is set to regulate the planning of space activities, to control the use of resources and technology transfers, to guarantee the sustainable development of China's space exploration and to promote international cooperation in space-related fields.⁸⁰

However, the future development prospected in the 2011 White Paper indicates that China will not centralize its space legislation for the time being. "Policies"⁸¹ are mentioned on the same footing with "legal regulations",⁸² and the laws and regulations regulating space activities should be gradually defined and consummated to guide and specify all aspects of space activity and to engender a beneficial policy and law environment for the development of outer space activities. Areas where future rules and regulations may be particularly relevant are intellectual property rights and the standardization of space activities.

6 Conclusions

There is a huge gap between China's bustling space industry and impressive space exploits on the one hand and the only sparse national regulation in place on the other. Although legislation activities may increase in the nearer future, the overall mode of enacting rules only to tackle specific demands will persist for the time being. The realization of a comprehensive space law is delayed into the mid-term future and obviously not regarded as a priority in China.

Interestingly, the regulation of space activities on the international plane seems to develop into a similar mode of operation. After many U.N. conventions and resolutions were issued between the 60s and the mid-90s, international rule-making seems to have come to

⁷⁹ 2011 White Paper.

⁸⁰ Asiaone of 18 November 2014.

⁸¹ 政策 *zhèngcè*.

⁸² 法规 *fǎguī*.

a halt and been taken over by a bustling array of international organizations and fora that address specific issues related to outer space activities. Practical cooperation succeeds abstract rule-making. China has secured its influence in many of these institutions and, with the Asia-Pacific Space Cooperation Organization (APSCO), has even created its “own” space organization.

The importance attached in China towards the development of space industries, and hence the financial means channeled towards it, are interesting for foreign suppliers and investors. However, the declared focus on self-innovation and self-reliance in this area may preclude extensive foreign involvement. Also, the co-existence of sparse legal rules with policies issued by the involved governmental and academic players, and the market largely controlled by SOE’s, may place an additional barrier for foreigners to enter the Chinese space market.

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Annex: Sources

1 Multilateral Space Treaties

1.1 China Participates

1.1.1 U.N. Treaties

1967 Outer Space Treaty: 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 at Moscow, London and Washington on 27 January 1967, entered into force on 10 October 1967, signed by China (ROC) on 27 January 1967, binding for China (PRC) qua accession from 30 December 1983, UN Treaty Office Registration No. 8843, available online at <https://treaties.un.org/pages/showDetails.aspx?objid=0800000280128cbd>, accessed on 23 February 2015

1968 Rescue Agreement: Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, opened for signature at Washington, London and Moscow on 22 April 1968, entered into force on 3 December 1968, binding for China qua accession from 20 December 1988, UN Treaty Office Registration No. 9574, available online at <https://treaties.un.org/pages/showDetails.aspx?objid=080000028012504f>, accessed on 23 February 2015

1972 Liability Convention: Convention on the International Liability for Damage Caused by Space Objects, opened for signature at London, Moscow and Washington on 29 March 1972, entered into force on 1 September 1972, binding for China (PRC) qua accession from 20 December 1988, UN Treaty Office Registration No. 13810, available online at <https://treaties.un.org/pages/showDetails.aspx?objid=08000002801098c7>, accessed on 23 February 2015

1974 Registration Convention: Convention on Registration of Objects Launched into Outer Space, adopted by the UN-General Assembly at New York on 12 November 1974, entered

into force on 15 September 1976, binding for China qua accession from 12 December 1988, UN Treaty Office Registration No. 15020, available online at

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1.1.2 Other Treaties

1971 ITSO: Agreement Relating to the International Telecommunications Satellite Organization (ITSO), with annexes, concluded at Washington on 20 August 1971, entered into force on 12 February 1973, binding for China qua accession from 16 August 1977, UN Treaty Office Registration No. 19677, available online at <https://treaties.un.org/pages/showDetails.aspx?objid=08000002800e8e08>, accessed on 24 February 2015

1976 IMSO: Convention on the International Maritime Satellite Organization (INMARSAT), concluded at London on 3 September 1976, entered into force on 16 July 1976, signed by China on 13 July 1979, with effect from 16 July 1979, UN Treaty Office Registration No. 17948, available online at <https://treaties.un.org/pages/showDetails.aspx?objid=08000002800f95d2>, accessed on 24 February 2015.

1992 ITU: International Telecommunication Constitution and Convention, concluded at Geneva on 22 December 1992, entered into force on 1 July 1994, deposited with the Secretary-General of the International Telecommunication Union and Convention, available online at http://www.itu.int/dms_pub/itu-s/oth/02/09/S020900000C5201PDFE.PDF, accessed on 24 February 2015. This is only one of many legal documents concluded in the framework of the International Telecommunication Union, established in 1865 through the International Telegraph Convention. China joined ITU on 1 September 1920 but the PRC was denied membership after its foundation. PRC took over ITU membership from ROC in May 1972.

2005 APSCO Convention: Convention of the Asia-Pacific Space Cooperation Organization

(APSCO). concluded at Beijing on 28 October 2005, entered into force on 12 October 2006, UN Treaty Office Registration No. 43736, available online at <https://treaties.un.org/Pages/showDetails.aspx?objid=0800000280060899>, accessed on 26 February 2015 (only four participants to date: Bangladesh, China, Mongolia, Pakistan, and Peru)

2008 IMSO Amendment: IMSO Convention Amended as Adopted by the Twentieth Session of the IMSO Assembly Provisionally applied from 6 October 2008, deposited with the Secretary-General of the International Maritime Organization, available online at <http://www.imso.org/public/Portals/0/Docs/BasicDocuments/Convention/E.IMSO%20CONVENTION.pdf>, accessed on 24 February 2015

1.2 China does not Participate

1.2.1 U.N. Treaties

1979 Moon Agreement: Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, adopted by the UN-General Assembly on 5 December 1979, entered into force on 11 July 1984, UN Treaty Office Registration No. 23002, available online at <https://treaties.un.org/pages/showDetails.aspx?objid=080000028003b946>, accessed on 23 February 2015 (only 16 ratifications as of February 2015)

1.2.2 Other Treaties (Selection)

1963 NTB: Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and under Water, concluded in Moscow on 5 August 1963, entered into force on 10 October 1963, UN Treaty Office Registration No. 6964, available online at <https://treaties.un.org/pages/showDetails.aspx?objid=08000002801313d9>, accessed on 23 February 2015. China never ratified this treaty because (1) it was excluded from the UN system at that time and (2) because it claimed that this treaty would in fact generate a nuclear weapons monopoly for the established nuclear powers, UK, US and USSR. However, the PRC signed the Comprehensive

Nuclear Test Ban Treaty on 24 September 1996.⁸³

1974 BRS: Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite, concluded at Brussels on 21 May 1974, entered into force on 25 August 1979, available online at <https://treaties.un.org/pages/showDetails.aspx?objid=0800000280038ee9>, accessed on 25 February 2015

1971 INTR: Agreement on the Establishment of the INTERSPUTNIK International System and Organization of Space Communications, concluded at Moscow on 15 November 1971, entered into force on 12 July 1972, UN Treaty Office Registration No. 12343, available online at <https://treaties.un.org/Pages/showDetails.aspx?objid=0800000280112656>, accessed on 25 February 2015

1975 ESA: Convention for the Establishment of a European Space Agency (ESA), with annexes and final act, concluded at Paris on 30 May 1975, entered into force on 30 October 1980, UN Treaty Office Registration No. 21524, available online at <https://treaties.un.org/Pages/showDetails.aspx?objid=08000002800df46b>, accessed on 25 February 2015

1976 ARB: Agreement of the Arab Corporation for Space Communications (ARABSAT) (amended in May 1990), concluded at Cairo on 14 April 1976, entered into force on 16 July 1976, no UN Treaty Office Registration No. available, website of the organization available at <http://www.arabsat.com/pages/ArabLeague.aspx>, accessed on 5 March 2015

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⁸³ See <http://baike.baidu.com/view/780976.htm#4>, accessed on 5 March 2015.

1982 EUTL: Convention Establishing the European Telecommunications Satellite Organization (EUTELSAT) (amended in accordance with decisions taken by the EUTELSAT parties in May 1999 to provide for the restructuring of EUTELSAT), concluded at Paris on 15 July 1982, entered into force on 1 September 1985, UN Treaty Office Registration No. 26342, available online at <https://treaties.un.org/Pages/showDetails.aspx?objid=08000002800c637e>, accessed on 25 February 2015

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3.2 According to U.N. Treaty Office⁸⁴

Memorandum of Understanding between the United States National Aeronautics and Space Administration and the Chinese Academy of Sciences Relating to the Establishment of a Landsat System, Beijing, 24 January 1980, entered into force on 12 January 1981, UN Treaty Office Registration No. 35131, available online at <https://treaties.un.org/Pages/showDetails.aspx?objid=080000028009cc84>, accessed on 17 February 2015

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Protocol on Approval of Research and Production of the Earth Resources Satellite between the Government of the Federative Republic of Brazil and the Government of the People's Republic of China, signed at Beijing on 6 July 1988, entered into force on 6 July 1988, UN Treaty Office Registration No. 26116, available online at <https://treaties.un.org/Pages/showDetails.aspx?objid=08000002800c7190>, accessed on 17 February 2015

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Protocol between the Ministry of Science and Technology of the Federative Republic of Brazil and the China National Space Administration of the People's Republic of China (CNSA) on Cooperation in the Peaceful Applications of Outer Space Sciences and Technology, Brasilia, 23 November 1993,

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4 PRC National Regulations

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