

# Space Law and Policy in the Republic of Korea

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## **Abstract**

Korea now has a rapidly expanding space programme with exploration aspirations. The government is giving priority to the aerospace industry and, to put it on a better footing, enacted an Aerospace Industry Development Promotion Act in 1987, a Space Development Promotion Act in 2005 and a new Space Damage Compensation Act in 2007. I would like to

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describe briefly the legislative history, main contents and comment for these three space acts including especially launch licensing, registration of space objects, use of satellite information, astronaut rescue, liability for compensation, third party liability insurance, financial support for the aerospace industry and establishment of committee and plans to assist the Korean space effort. It is indeed a great necessary for us to establish an Asian Space Agency (ASA) for strengthening cooperation within the Asian space community towards joint undertakings. ASA could then act as a catalyst for common efforts in space exploitation and allow resources, technology, manpower and finances to be centrally managed in an independent fashion for the benefit of Asian countries and could also fulfill a similar function as the European Space Agency among its member States.

## **I. Introduction**

Space has become an important sector in Asia, which will develop with greater rapidity in the 21st century. Thanks to the expansion of the private mobile communication industry, an increase in space exploration activities including moon, mars, Venus and other celestial bodies, the implementation of the International Space Station (ISS) program, the industry will grow continuously and the market size of the global space industry is likely to see annual average growth of more than 10%. For this reason the Korean government decided to actively foster the aerospace industry in 2010. Korea now has a rapidly expanding space programme with exploration aspirations. In order to develop it more efficiently the Korean government revised the Mid-and Long-Term National Space Development Basic Plan with a resolution of the National Science and Technology Council on 17 May 2005. Furthermore the Korean government established "a new 1st Space Development Promotion Plan (2007-2016)" on June 2007 and formulated annually "the Space Development and Implementation Plan (January 2010 ~ February 2011)". The Korean National Science and Technology Council issued a plan for a National Space Program which could be an important milestone in the field of science and technology of Korean history.

Korean space policy is based on the national space program and the following three space Acts. The Space Relationship Law of Korea is divided into three branches: (1) the Aerospace Industry Development Promotion Act of 1987, (2) the Space Development Promotion Act of 2005 and the (3) Space Damage Compensation Act of 2007.

These Acts deals with the establishment of institutions and plans to assist the Korean space effort such as a the National Space Committee and Basic Plan for Promoting Space, launch licensing, registration of space objects, use of satellite information, astronaut rescue, compensation for damage caused by the space accidents and third party liability insurance, rescue of astronauts and pursues the objective of controlling space accidents mitigation and the regulation of compensation in case of damage, the financial support of aerospace industry.

This article will give an outline of the legislative history and the main features of Korean space

law as the following.

## **II. Space Law in the Republic of Korea**

### **1. The Aerospace Industry Development Promotion Act of 1987**

The Aerospace Industry Development Promotion Act was passed by the majority of the Korean National Assembly and was proclaimed with Law no. 8852 by the Government on December 4, 1987. It has been amended 15 times during the last 23 years until now and comprises 22 articles until now. It is the purpose of this Act to contribute to the sound development of the national economy and the improvement of national life by rationally supporting and promoting the aerospace industry as well as research and effective development with regard to aerospace science and technology. In this framework the Korean Ministry of Knowledge Economy has always been an important player and handled kindly the budgetary matters and financial support for manufacturing of aircraft, satellites and spacecraft.<sup>2</sup>

The main features of the Aerospace Industry Development Promotion Act are as follows:

#### ***1.1. Establishment of the Basic Plan for Aerospace Industry Development***

In order to develop the aerospace industry the Government has the obligation to establish the Basic Plan for Aerospace Industry Development including the following items: (1) purpose and direction, (2) pushing systematization and strategy, (3) pushing plan for the aerospace industry development, (4) comprehensive research system as well as research and development budget for aerospace science and technology, (5) supply of financial resources and investment plan, (6) training and education for specialized manpower and (7) international cooperation as well as other important matters concerning the development of the aerospace industry.

The Government shall establish and execute each year the operational program in accordance with its Basic Plan (Art. 3).

#### ***1.2. Fostering of Aerospace Industry Development***

The Government shall push the execution of the operational program in order to foster the aerospace industry in such as the development of aircraft, remote pilotless vehicles, space launch vehicles, satellites, spacecraft. and related equipment and materials (Art. 4).

#### ***1.3. Designation and Support of Specified Businessman***

The Minister of Knowledge Economy may designate items etc. as necessary to foster specified businessmen especially according to the Basic Plan under Art. 3 (Art. 5).

#### ***1.4. Performance and Quality Inspection***

When an aerospace industry businessman or specified businessman produces aircraft, space object,

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<sup>2</sup>) Doo Hwan Kim, *Essay for the Study of the International Air and Space Law*, December 2008, Korean Studies Information Co. Ltd, pp. 372-375.

apparatus or material he shall be subject to a performance and quality inspection by the Minister of Knowledge Economy. The Minister of Knowledge Economy must deliver a certificate of inspection to aircraft, spacecraft, apparatus or material passed through the performance and quality inspection (Art. 10).

#### ***1.5. Restriction etc. on Use***

Any aircraft, space object, apparatus or material not inspected under Art. 10 shall not be used except for test flights (Art. 11).

#### ***1.6. Financial Support***

The Government may support the long-term, low-interest fund as well as the research and development expenses for the purpose of fostering the aerospace industry and management of the exhibition relating to aerospace science and technology (Art. 12).

#### ***1.7. Lending etc. of State-Owned Facilities, Apparatus etc.***

Notwithstanding the provisions of the State Properties Act, if it is necessary for research, development or production of aircraft, satellites, space launch vehicles, spacecraft, apparatus or materials, the Government may gratuitously or onerously lend or concede State-owned facilities, apparatus, etc. to an aerospace industry businessman or allow him its use or the benefits derived from it (Art. 13).

#### ***1.8. Establishment of Aerospace Industry Development Policy Council***

For deliberation of matters concerning the establishment of the Basic Plan and coordination of related important policies of the Government and main affairs among ministries and agencies, the Aerospace Industry Development Policy Council is established and placed under the control of the Prime Minister (Art. 14).

#### ***1.9. Composition of Aerospace Industry Development Policy Council***

The Council shall be composed of no more than fifteen members including the Chair.

The Chair is taken by the Minister of the Ministry of Knowledge Economy. Members of the Council shall be determined by Presidential Decree. In order to take proper measures in case where the coordination of affairs, cooperation etc. between the civil and military sectors are deemed necessary the Chair may establish and operate an advisory committee under the conditions as prescribed by the Presidential Decree (Art. 16).

#### ***1.10. Hearing***

When the Minister of Knowledge Economy cancels the designation of a specified businessman as referred to in Art. 8, he shall hold a hearing (Art. 17, Para. 2).

## **2. The Space Development Promotion Act of 2005**

The Korean Government proclaimed a New Space Development Promotion Act in May 2005 in order to control the systematic promotion of space development, to manage the launch of space objects and to produce guidelines for handling potential compensation claims for damage caused by space accidents<sup>3</sup>. As space development involves great expenses and a high risk as a national strategic and public industry, the Korean Government had recognized the need to establish the legal basis for this undertaking as well as the establishment of the promotion plan every five years. In 2004 it proposed the draft of the Korean Space Development Promotion Act which was then passed by the State Council of the Korean Government on December 21, 2004 and was submitted to the National Assembly where it was passed by majority resolution on May 3, 2005.

The Space Development Promotion Act (hereinafter referred to as Korean Space Act) was then transferred to the Government on May 17, 2005 where it was proclaimed with Law no. 7538 on May 31, 2005. It came into force six months later, on December 1, 2005. But this Act was amended by the revision of the Government Organization Act on February 29, 2008 as well as revision of Article 17 (Utilization of Satellite Information) and Article 28 (Dual Penalization) on March 17, 2010. The Act is in accordance with Korea's international obligations under the various UN space treaties and conventions such as the Outer Space Treaty of 1967,<sup>4</sup> the Rescue Agreement of 1968,<sup>5</sup> the Liability Convention of 1972<sup>6</sup> and the Registration Convention of 1975<sup>7</sup>. The Korean drafters of this Act has studied and analyzed the contents of the foreign space law<sup>8</sup> such as the United States,<sup>9</sup> the United Kingdom,<sup>10</sup> Canada,<sup>11</sup> Russia,<sup>12</sup> Germany,<sup>13</sup> France,<sup>14</sup> Japan,<sup>15</sup>

<sup>3</sup>) Doo Hwan Kim, "Necessity for Enacting the Space Law in Korea. Japanese Academic Journal Kiyoo; 4(1), Proceedings of the Research Institute of Social Systems of Chuogakuin University, Chiba-ken, Japan, at 39-52.

<sup>4</sup>) Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the moon and other Celestial Bodies.

<sup>5</sup>) Agreement on the Rescue of Astronauts, the Return Astronauts and the Return of Objects Launched into Outer Space.

<sup>6</sup>) Convention on International Liability for Damage Caused by Space Objects.

<sup>7</sup>) Convention on Registration of Objects Launched into Outer Space.

<sup>8</sup>) [http://www.oosa.unvienna.org/oosadb/browse\\_all\\_js.jsp?dims=COUNTRYRY\\_CODE|DATE](http://www.oosa.unvienna.org/oosadb/browse_all_js.jsp?dims=COUNTRYRY_CODE|DATE)

<sup>9</sup>) ① The National Aeronautics and Space Act of 1958, ② Space Commercialization Promotion Act of 1996, ③ Commercial Space Competitiveness Act of 1999, ④ Space Transportation Service Purchase Act of 1998, ⑤ Remote Sensing Application Act of 2002, ⑥ Space Exploration Act of 2002, ⑦ Title 11, NASA Authorization Act of 1991, ⑧ Communications Satellite Competition Act of 1998, ⑨ Commercial Space Transportation Cost Reduction Act of 1999, ⑩ Public Law 105 303: Commercial Space Act of 1998, ⑪ 49 USC Chapter 701 Commercial Space Launch Activities Act of 1984 and of 1994, ⑫ Land Remote Sensing Commercialization Act of 1984, ⑬ Land Remote Sensing Policy Act of 1992;

<sup>10</sup>) Outer Space Act of 1986.

<sup>11</sup>) ① Aeronautics Act of 1985, ② Canadian Space Agency Act of 2000

<sup>12</sup>) ① Presidential Edict No. 185, About structure of management of space activity in Russian Federation (25 February 1992), ② Law on Space Activity of 1993; Frans G. von der Dunk, *Private Enterprise and Public Interest in the European 'Spacescape'*, Published with the International Institute of Air and Space Law, Leiden University, The Netherlands, (1998), at 141.

<sup>13</sup>) ① Gesetz zur bertragung von Verwaltungsaufgaben auf dem Gebiet der Raumfahrt, 22 August 1998 (Law governing the Transfer of Responsibilities for Space Activities), ② Telecommunications Act

Sweden,<sup>16</sup> Australia,<sup>17</sup> Spain,<sup>18</sup> Argentina<sup>19</sup> and South Africa<sup>20</sup> etc. and then reflected partly the merits and main points of the aforementioned foreign space acts and four space treaties. In the legislative field Korea has enacted its Space Development Promotion Act and Space Compensation for Damage Act so as to become an excellent model in the Asian Countries.

The main features of the Korean Space Act which comprises 29 articles are as follows:

### ***2.1. Purpose***

The purpose of this Act is to promote the peaceful use and scientific exploration of outer space, ensure national security, further develop the national economy and raise the national standard of living through the systematic promotion of space exploration and the effective use and management of space objects (Art. 1).

### ***2.2. Government Responsibilities***

The Korean Government shall carry out space exploration in conformity with international space treaties and conventions, treaties concluded with other countries and international organizations and shall use outer space for peaceful purposes (Art. 3).

### ***2.3. Establishment of a Basic Plan for Promoting Space Development***

The Korean Government must design a Basic Plan for promoting space development and for using and managing space objects. The Government develops the Basic Plan every five years and confirms it through deliberations of the National Space Committee (Art. 5).

### ***2.4. Establishment of National Space Committee***

The National Space Committee is placed under the control of the President and has the task to consider provisions regarding space exploration including the establishment of the Basic Plan, etc. The Committee is composed of no more than fifteen members including the Chair. Chairman is the Minister of Ministry of Education, Science and Technology (hereinafter referred to

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of 25 July 1996.

<sup>14</sup>) LOI n 61 1382 du 19 decembre 1961, Instituant un Centre National d'Etudes Spatiales (Statute of the Centre d'Etudes Spatiales)

<sup>15</sup>) □ Law Concerning Japan Aerospace Exploration Agency of 2003, □ The National Space Development Agency Law of 1969, ③ Basic Space Law.

<sup>16</sup>) Act on Space Activities of 1982.

<sup>17</sup>) Space Activities Act 1998 (No. 123, 1998) and Statutory Rules No. 186 Space Activities Regulations 2001.

<sup>18</sup>) Royal Decree No.278, 1995 on the Establishment in Spain of the Registry of Objects Launched into Outer Space as Provided for in the Convention adopted by the United Nations General Assembly on 12 November 1974.

<sup>19</sup>) ① Creation of the National Commission on Space Activities of 1991: National Decree No.995/91, ② Establishment of the National Registry of Objects Launched into Outer Space of 1995: National Decree No.125/95.

<sup>20</sup>) ① Space Affairs Act No.84 of 1993 This Act composed of 27 Articles, ② Space Affairs Amendment Act No.1530 of 1995

as MEST). The National Space Committee is assisted by a Practical Affairs Subcommittee for Space Development Promotion under the chairmanship of the Vice Minister of MEST (Art. 6).

#### ***2.5. Designation of a Special Institute for Space Exploration***

The Minister of MEST can designate a professional organ for space exploration for systematically and effectively supporting the space exploration project. The criterion of designation and financial support for this professional organ are regulated by Presidential Decree (Art. 7).

#### ***2.6. Domestic Registration of Space Objects***

If Korean nationals (including legal entities) intend to launch a space objects in or outside Korea a preliminary registration must be made for the MEST in accordance with the Presidential Decree 180 days before the scheduled launching. If the Minister of MEST investigates the launch plan and concludes that it does not demonstrate adequate liability for compensation in case of damages, he can demand that the plan be further revised. After the preliminary registration of a space object which is to be performed by everyone a space object must then be formally registered with the Minister of MEST within 90 days after the space object has reached its planned orbit (Art. 8).

#### ***2.7. International Registration of Space Objects***

If a national registration of space objects is registered in Korea, the Minister of MEST must register the space object with the United Nations through the Minister of Foreign Affairs and Trade in accordance with the Convention on Registration of Objects Launched into Outer Space (Art. 9).

#### ***2.8. Management of Registered Ledger for Space Objects***

The Minister of MEST must keep and manage the preliminary registry and the formal registry ledger of space objects (Art. 10).

#### ***2.9. Licensing of Space Launch Vehicles***

If an individual or legal entity intends to use a space launch vehicle in Korea or in a foreign country, a license must be obtained from the Minister of MEST. Any individual or legal entity intending to obtain a launch license must submit the launch plan including a safety analysis report, the operational plan of payloads and the plan relating to liability and compensation in case of damages to Minister of MEST.

If the Minister of MEST grants a launch license, following issues must be considered:

(1) purpose of space launch, (2) safety management of a space launch vehicle, (3) liability insurance for potential damages, (4) other matters including necessary issues for launch preparation and the transportation of the space launch vehicle (Art. 11).

#### ***2.10. Cancellation of License for Launching and Hearing***

The Minister of MEST may revoke a launch license in any of the following cases:

(1) delay of launch for more than one year from the permitted launching date without good reason, (2) receipt of license by false means, (3) demand for cancellation by a chief of a related

state administrative organ in anticipation of serious threats to national security, (4) abnormalities in safety matters including fuel leakage before launch or defects in the communication system, (5) failure to obtain a license for changes due to violations of Art. 11, Sec.1, and (6) non compliance of the licensee to any part of Art. 12 (Art. 13).

#### ***2.11. Liability and Compensation in Case of Damage caused by Space Accidents***

An individual (or legal entity) launching a space object is liable to pay compensation in case of damage caused by a space accident. The sphere of liability for compensation in case of damages and the limit for the payment of compensation are regulated in other laws (Art. 14).

#### ***2.12. Organisation of the Space Accident Inquiry Committee***

The Minister of MEST may establish a Space Accident Inquiry Committee for accident investigation. It will consist of 5 to 11 members chosen by the Minister of MEST from specialists in relevant fields. The Minister will appoint one of them as Chairman. However, with respect to national security questions a separate Inquiry Committee can be composed on the basis of a Presidential Decree. The Committee can request cooperation by the chief of related administrative organs in connection with the entrance and exit control to the area of the space accident and other relevant investigations. Necessary provisions relating to the convocation and the composition of the Committee as well as the qualification of its members, necessary operations, etc. are to be determined by Presidential Decree (Art. 16).

#### ***2.13. Utilization of Satellite Information***

The Minister of MEST can take action, such as to designate or establish an organization for the promotion, dissemination and practical use of information gained by artificial satellites developed in accordance with the Basic Plan. In such a case, geographical information in accordance with the Act on the National Geographic Information is to be consulted upon with the Minister of Land, Transport and Maritime Affairs. The Minister of MEST may provide the funding for the promotion, dissemination and practical use of satellite information within the limits of budgetary appropriation. The Government should not use satellite information to infringe on the private life of individuals (Art. 17).

#### ***2.14. Support of the Civilian Space Exploration Project***

The Minister of MEST should design policies such as the provision of human resources, tax benefits and financial support and preferential purchase etc. for attracting civilian space exploration projects and for enlarging civilian research and development investment (Art. 18).

#### ***2.15. Rescue of Astronauts***

The Korean Government shall provide assistance in the case that an astronaut from a foreign space object makes an emergency landing, meets with a disaster or is involved in an accident on Korean territory or on the neighboring High Seas. The Korean Government will assist the astronaut in returning him to the country of launch, country of registration or international



organization responsible for the launch (Art. 22).

### ***2.16. Restitution of Space Objects***

In case that a foreign space objects has fallen on Korean territory or an emergency landing has taken place, the Korean Government must return the foreign space object to the launching state or country of register or international organization responsible for the launch (Art. 23).

### ***2.17. Penalty Clauses***

Any individual (or legal entity) who undertakes a space launch or uses a space launch vehicle without a license (including license on changes) is sentenced to imprisonment up to five years, or faces fines not exceeding 50,000,000 won in accordance with Art. 11 and (Art. 27).

## **3. The Space Damage Compensation Act of 2007**

Though the Draft of the Space Damage Compensation Act (Korean Space Liability Act) was based on Article 14 of the Space Development Promotion Act, this Draft aims at the protection of the victims in case of space damage and at the quick solution of disputes as well as the scope of damage to be restituted and the limitation of liability. The Draft for the Space Damage Compensation Act was drawn up in the context of Korea's due considerations with respect to the Liability Convention of 1972 as well as in connection with the study of legislative examples of domestic acts relating to the compensation for space damage in developed countries.

As twelve congressmen proposed the Draft for the Space Damage Compensation Act to the National Assembly on February 5, 2007, it was discussed and deliberated by the Science, Technology, Information and Telecommunication Committee under the National Assembly on April 12, 2007. The Act was then was passed by majority resolution of the Korean National Assembly and proclaimed with Law no. 8714 by the Government on December 21 2007. But this Act was amended by the revision of the Government Organization Act on February 29, 2008.

It came into force six months later from the said date of promulgation namely on June 22, 2008 according to its additional clause 1. Finally this Act was enacted by the method of congressman's legislature. It is composed of 8 articles. The main features of the Act can be described as follows:

### ***3.1. Purpose***

The purpose of this act is to protect the aggrieved party and to contribute to the sound development of space activities by deciding the extent of damages and the limit of liability in case the damage occurs by the space activities (Art. 1).

### ***3.2. Relation to International Instruments***

If the Government is to pay compensation for damage to a foreign Government according to the "Convention on International Liability for Damage Caused by Space Objects", it can take recourse from the individual (or legal entity) who had launched the space object which had

caused the damage.

### ***3.3. Strict Liability and Channeling of Liability etc.***

In case space damage occurs, the relevant person launching a space object shall have liability to pay compensation for damage. However, in case of space damage caused by armed conflict, hostile activity, civil war or rebellion or caused in outer space, the launching party shall be liable only if the damage is due to his intention or negligence. A person launching a space object who has paid compensation for space damage caused by a third party's intention or negligence may request the recourse to the person to indemnify such compensation.

In case of space damage the provisions of the Product Liability Act (Produkthaftungsgesetz) are not applicable (Art. 4).

### ***3.4. Maximum Amount of Compensation for Damage***

The maximum amount of compensation to be paid by a person launching a space object is limited to 200billion won (Art. 5).

### ***3.5. Covering of Liability Insurance for Compensation***

Each person seeking to obtain a launch permit for space launch vehicles according to Article 11 of "Space Development Promotion Act" shall cover a liability insurance so as to receive the compensation for damage. The amount of coverage of an insurance which shall be joined in accordance with Article 6.1 of this Act shall be determined and announced by the MEST in consideration of the characteristics of a space object, the degree of complexity of technology, conditions of the surroundings of a launch pad, domestic and overseas insurance markets within the scope not exceeding the amount of coverage of a damage compensation liability insurance under Article 5. (Art. 6.)

### ***3.6. Enforcement***

The government shall take necessary actions to rescue the victims and to prevent further damage when space damage occurs. The government may provide the launching party with the financial support, when it thinks appropriate in order to achieve the purpose of this Act in case the amount of the compensation under Article 4.1 would exceed the insured amount under Article 6.2. The scope of such assistance is permitted according to the decision of National Assembly (Art. 7).

### ***3.7. Period for Exercise of Rights***

The right to claim compensation according to this Act shall extinguish by prescription if not exercised within one year from the time when the injured party or his representative becomes aware of the damage occurrence. The right to claim compensation for damage according to this Act shall not exercised if three years have elapsed from the time when space damage occurred (Art. 8).

## **4. Comments on the Space Damage Compensation Act**

### ***4.1. Proposal to Define the Term “Space-worthiness”***

Space-worthiness is a term used to describe when the satellite and spacecraft certified as suitable for safe launching and flight such as airworthiness in aviation law and seaworthiness in maritime law. The application of space-worthiness defines the condition of an satellite or spacecraft and supplies the basis for judgment of the suitability for launching and flight of that satellite and spacecraft, in that it has been designed with engineering rigor, constructed, maintained and is expected to be operated to approved standards and limitations, by competent and approved institute. It is necessary and desirable for us to adopt a new definition of Space-worthiness in order to provide the safety standard for space activities aimed as well as for the prevention of space accidents. Therefore an individual or legal entity of launching a space objects shall be responsible before and at the beginning of the launch to exercise and check with due diligence with respect to: (1) Make the satellite and spacecraft space-worthy, (2) Ensuring the space worthiness of the satellite, the space launch vehicle or the spacecraft and for (3) Providing the proper crew, equipment and supply of the spacecraft. Furthermore they shall be liable for damage sustained by third parties upon provided that damage was caused by the un-fulfillment of space worthiness of launcher <sup>21</sup>.

### ***4.2 Exclusion of the Limited Liability for Damage Caused by Wilful -Misconduct***

Although it is desirable for Korea to accept strict liability for damage according to Art. 4 and 5 of the Space Damage Compensation Act caused on the surface of the Earth and spacecraft in flight it is necessary to exclude such limited liability if the damage was caused by wilful misconduct or gross negligence of an individual (or legal entity) having launched the space object, their servants or agents and caused intentionally or recklessly, knowing that damage would probably occur<sup>22</sup>.

### ***4.3. Proposal to Regulate Joint and Several Liability***

If two or more individuals or legal entities undertake a launching it will be necessary to insert a provision relating to their joint and several liability for compensation in case of an accident.

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<sup>21</sup>) Legislative Examples could be provided by the International Convention for the Unification of Certain Rules of Law relating to Bills of Lading (1924) Art. 3, the Korean Commercial Code, Art. 794 (Seaworthiness) and the Japanese Commercial Code, Art. 738 (Seaworthiness), The Korean Aviation Act, Article 15 (Certificate of Airworthiness), The Japanese Aviation Act, Article 10 (Certificate of Airworthiness).

<sup>22</sup>) In this connection international and national legislative examples could be: Art. 25 of the Warsaw Convention of 1929, Art. 13 of the Hague Protocol of 1955, Art. 22 of the Convention for the Unification of Certain Rules for International Carriage by Air (Montreal Convention) of 1999, Art. 4 of the Convention on Limitation of Liability for Maritime Claims of 1976, Art. 8 of the United Nations Convention on the Carriage of Goods by Sea (Hamburg Rule) of 1978, Art. 21 of the United Nations Convention on International Multimodal Transport of Goods of 1980, Art. 769, 797 of the Korean Commercial Code of 2007, Art. 13 Para. 2 of the Japanese International Commodity Transport Act of 1992.

#### ***4.4. Change from the Korean Won to Unit of Account in sum of Compensation for Damage***

Most of the international maritime and aviation treaties as well as the Korean Commercial Code, German Commercial Code (Handelsgesetzbuch: HGB), the Japanese International Commodity Transport Act and the Civil Aviation Law of the People's Republic of China determines the sum to be paid in compensation for damage in Unit of Account (Special Drawing Rights: SDR)<sup>23</sup>.

Therefore is greatly desirable to adopt this recognized calculation unit also in case of a space accident in Korea and Art. 5 of the Space Damage Compensation Act should be changed as Unit of Account. The sums mentioned in terms of Unit of Account shall be deemed to refer to the SDR as defined by the International Monetary Fund under the United Nations. Conversion from Unit of Account to the national currencies shall, in case of judicial proceedings, be made according to the value of such currencies in terms of the SDR at the date of the judgment<sup>24</sup>.

#### ***4.5. Need to Recognize the Right to Receive Preferential Payment***

For the purpose of protection and the alleviation for suffering of victims new regulation is needed with respect to the recognition the victim's right to receive preferential payment for compensation before the settlement of other claims in case of an space accident.

### **III. Study for the Draft of National Space Legislation by UNCOPUOS and International Law Association (ILA)**

#### **1. The Legal Sub-Committee of UNCOPUOS**

Pursuant to General Assembly resolution 64/86, agenda item 12, entitled "General exchange of information on national legislation relevant to the peaceful exploration and use of outer space", was considered in accordance with the multiyear work-plan for the period 2008-2011 adopted by the Committee on the Peaceful Uses of Outer Space at its fiftieth session.<sup>25</sup>

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<sup>23</sup>) The SDR is an international reserve asset, created by the IMF in 1969 to supplement the existing official reserves of member countries. SDRs are allocated to member countries in proportion to their IMF quotas. The SDR also serves as the unit of account of the IMF and some other international organizations. Its value is based on a basket of key international currencies. The Exchange rates in terms of SDRs are also available online : 1 SDR= 1,773<sup>34</sup> □ (Korean Won) and 1.<sup>63</sup> \$ (US Dollar) on November 1, 2010.; [http://www.imf.org/external/np/fin/data/rms\\_five.aspx](http://www.imf.org/external/np/fin/data/rms_five.aspx)

<sup>24</sup>) In this connection international and national legislative examples could be: Art. 2 of the Montreal Additional Protocol No.1, No.2, No.3 and Art. 22 of the Montreal Protocol of 1975, Art. 22-23 of the Montreal Convention 1999, Art. 6 of the Convention on Limitation of Liability for Maritime Claims of 1976, Art. 6 of the Hamburg Rule of 1978, Art. 18 of the United Nations Convention on International Multimodal Transport of Goods of 1980, Art. 770, 797 of the Korean Commercial Code of 2007, Art. 13 of the Japanese International Commodity Transport Act of 1992, Art. 45-46 of the German Air Transport Act (Luftverkehrsgesetz) of 2007, Art. 129 of the Civil Aviation Law of the People's Republic of China.

<sup>25</sup>) [http://www.oosa.unvienna.org/pdf/reports/ac105/AC105\\_942E.pdf](http://www.oosa.unvienna.org/pdf/reports/ac105/AC105_942E.pdf)

The Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space held its forty-ninth session at the United Nations Office at Vienna from 22 March to 1 April 2010. The Subcommittee held a total of 17 meetings. At its 803rd meeting, on 22 March, the Subcommittee adopted the following agenda:

- General exchange of information on national legislation relevant to the peaceful exploration and use of outer space.

At its 805th meeting, on 23 March 2010, the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space reconvened its Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space. The Working Group held six meetings, from 26 March to 1 April 2010. The Working Group recalled that national regulatory frameworks represented different legal systems with either unified acts or a combination of national legal instruments and that States had adapted their national legal frameworks according to their specific needs and practical considerations.

The Working Group continued its review of the following main issues for discussion<sup>26</sup> :

- (a) Reasons for States to enact national space legislation or the reasons for the absence of such legislation;
- (b) Scope of space activities targeted by national regulatory frameworks;
- (c) Scope of national jurisdiction over space activities;
- (d) Competence of national authorities in the authorization, registration and supervision of space activities;
- (e) Conditions to be fulfilled for registration and authorization;
- (f) Regulations concerning liability;
- (g) Compliance and monitoring.

After a discussion of the proposal by the Chair on a tentative structure for the final report of the Working Group<sup>27</sup>, the Working Group agreed that, upon completion of its multi-year work-plan, it should issue a comprehensive report on its work with the following structure:

- I. Summary of the work conducted by the Working Group under its multiyear work-plan
- II. Overview of national space legislation
- III. Findings of the Working Group
- IV. Conclusions<sup>28</sup>

## **2. Space Law Committee of ILA**

According to the Article VI of the 1967 Outer Space Treaty requests States to authorise and continuously supervise the activities of the space objects in their register, thus under their jurisdiction.<sup>29</sup> In view of the growing private space activities, national space legislation should cover a variety of problems. The Liability Convention of 1972 covers only State liability and

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<sup>26</sup>) see A/AC.105/935, annex III, paras. 7 and 18

<sup>27</sup>) A/AC.105/C.2/2010/CRP.16

<sup>28</sup>) [http://www.oosa.unvienna.org/pdf/reports/ac105/AC105\\_942E.pdf](http://www.oosa.unvienna.org/pdf/reports/ac105/AC105_942E.pdf)

<sup>29</sup>) For a detailed commentary of art. VI OST see Michael Gerhard, Art. VI, in: S. Hobe/B. Schmidt-Tedd/K.-U. Schrogl (eds.), *Cologne Commentary on Space Law*, vol. 1, Cologne et al. 2009, pp. 103 et seq.

not the liability of a private actor. Thus, only through national space legislation can it be assured that the responsible launching State may claim damage incurred by third-parties to the private space actor. Therefore, questions of indemnification and insurance should be regulated through national space legislation. The obligation of authorisation and continuous supervision of space activities by private actors should also be regulated for the sole reason that it is the only way for governments to control these activities.

Since the 2004 Conference in Berlin, the ILA Space Law Committee has been dealing with the national space legislation. Furthermore, at the 2008 Conference in Rio de Janeiro the Rapporteur had submitted a report on national space legislation, which is currently very active in the exchange of opinions on national space legislation.

As the Space Law Committee of ILA at Toronto and Rio de Janeiro, its work is directed towards the formulation and final adoption of a model for national space legislation, depending on the progress of its work in 2010 at its Hague Conference and/or in 2012 in Sofia, Bulgaria.

During the ILA 74th Conference, last August 2010 at The Hague, the Space Law Committee discussed, inter alia, a “Draft Model Law on the National Space Legislation (NSL)” presented by the Committee Rapporteur Professor Stephan Hobe (Germany).

This Draft Model Law on NSL is composed of nine Articles as the following;

① Requirements for Private Space Activities, ② Contents of the License, ③ Transfer of the License, ④ Insurance, ⑤ Registration, ⑥ Supervision, ⑦ Environmental Assessment, ⑧ Compensation, ⑨ Dispute Settlement.

I received a copy of the “Proposed Model Law on National Space Legislation” from Chair of the Space Law Committee of ILA Prof. Maureen Williams by E-mail on November 1, 2010.

This Proposed Model Law on NSL also is composed of thirteen Articles as the following;

① Scope of the law, ② Definitions - Use of Terms, ③ Authorization and supervision, ④ Conditions for authorization, ⑤ Transfer of License, ⑥ Insurance, ⑦ Registration, ⑧ Supervision, ⑨ Environmental Assessment, ⑩ Mitigation of Space Debris, ⑪ Liability and Compensation, ⑫ Dispute Settlement, ⑬ Sanctions.

It is indeed a great necessary and desirable for us to regulate a standard and enact a space national legislation in order to unify the different legal systems among the 192 countries in the global community. Although the Korean two space acts were regulated already the main items □ Domestic and International registration of Space Objects, ② Management of Space Objects Registry, ③ Launch Permits for Space Objects, ④ Cancellation of Launch Permit and the Hearing, ⑤ Liability for Damages due to Space Accidents, ⑥ Maximum Amount of Compensation for Damage, ⑦ Third-Party Liability Insurance, ⑧ Formation of a Space Accident Inquiry Committee, ⑨ Utilization of Satellite Information, ⑩ Support of Civil Space Development Activities, ⑪ Rescue of Astronauts and Return of Space Objects, ⑫ Penalty Clause in the Korean Space Act and Space Liability Act, but we will be considered deeply again the legal problems on the supervision for the space management, transfer of launch license, environmental assessment for space, mitigation of space debris and space

dispute settlement in the near future.

## **IV. Space Policy and Program in the Republic of Korea**

### **1. Space Policy and National Space Development Basic Plan**

The Korean space policy is based on the Short, Middle and Long-Term National Space Development Basic Plan. The Korean space program has been helped on its way by a number of space plans formulated in the late 1990s and 2000 by the former Ministry of Science and Technology (MOST), the National Scientific and Technical Council and the former Ministry of Commerce, Industry and Energy. The Korean Government decided to actively foster the aerospace industry and revised the Middle and Long-Term National Space Development Basic Plan (hereafter referred to as the Space Basic Plan).

The Space Basic Plan aims to strengthen international cooperation and R&D in fundamental technologies. This revision of the objectives of the Space Basic Plan was a reflection of changes in the national and international environment as well as of the possibility of implementing space technology development. The recent revision of the National Space Development Basic Plan was passed on 17 May 2005.

This revision of the objectives of the Space Basic Plan was a reflection of changes in the national and international environment as well as of the possibility of implementing space technology development. The Space Basic Plan is divided over 20 years (1996–2015) a long-term plan, and a medium-term plan (2005–2010). The long-term plan defines the long-term directive and objectives for space development. The middle-term plan defines the specific objectives and plans for space development in 5-year increments.

### **2. Satellite launches**

The Republic of Korea began dabbling in space exploration in 1987 with the enactment of an Aerospace Industry Development Promotion Act tailored toward promoting aerospace industrial development. On the back of that Act, the Satellite Technology Research Center (SaTReC) under the Korea Advanced Institute of Science and Technology (KAIST) started to develop Korea's first satellite, Kitsat 1 (*Uri Byul: Our Star*)<sup>30</sup> in the late 1980s and finally launched this experimental satellite in 1992. SaTReC launched a second science satellite, Kitsat (*Uri Byul 2*)<sup>31</sup> in 1993, and launched two scientific sounding rockets in 1993 and 1997. It then launched a third science satellite, Kitsat (*Uri Byul, 3*),<sup>32</sup> in 1999 and a Science and Technology Satellite-1,<sup>33</sup> in 2003. Since then, space activities have focused upon research and

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<sup>30</sup>) <http://satrec.kaist.ac.kr/english/SaTReC.htm>

<sup>31</sup>) <http://satrec.kaist.ac.kr/english/SaTReC.htm>

<sup>32</sup>) <http://satrec.kaist.ac.kr>

<sup>33</sup>) <http://satrec.kaist.ac.kr>

development in this area. By launching three communications and broadcasting satellites, KoreaSat 1<sup>34</sup>, 2,<sup>35</sup>3<sup>36</sup> (*Mugoonghwa* 1, 2, 3: Korean national flower) for the Korea Telecommunication Co. (KT) in 1995, 1996 and 1999, respectively, Korea expanded into commercial satellite use. KT, a former state monopoly, was fully privatized in 2002. However, the KT satellites were provided by foreign manufacturers and were carried to orbit by rockets built by overseas companies. Korea has established an infrastructure for the development of space technology by building micro-science satellites Kitsat *Uri Byul* 3 (100 kg, indigenous development)<sup>37</sup> and the Korea multi-purpose satellite-1 (KOMPSAT-1)<sup>38</sup> in 1999. This was the first multipurpose satellite in Korea. The state-run space Research Institute (KARI), which is affiliated to the MEST, successfully launched KOMPSAT-1 (Arirang-1)<sup>39</sup> in 1999. Arirang-1 has been performing its mission beyond its designed lifespan. In the launch vehicle area, KARI developed single-stage and two-stage scientific sounding rockets in 1993 and 1998 respectively. The KSR-III with liquid propellant engine system was launched successfully in 2002. The STSAT-1 (Science and Technology Satellite-1) was launched in 2003. STSAT-1 was developed from technologies based on the KITSAT-1, 2 and 3 which were previous Korean micro-satellites successfully operated in orbit. The STSAT-1 launched on September 2003, was the first satellite for a space science mission in Korea. The KARI has been in charge of the rocket launch project since August 2002.

It was placed in orbit from a US launch site and was the first practical satellite to be made by Korean scientists, with some help from US scientists at TRW. SK Telecom Co. launched a geostationary digital multimedia broadcasting satellite (*Hanbyol*: One Star, or MBSAT) in cooperation with MB Co. in Japan from the Kennedy Space Center in May 2004. KARI launched the multipurpose KOMPSAT-2 (Arirang-2) satellite from a Russian launch site in 2006. This satellite was built by the Israeli company Elop on a budget of 200 million *won*. Arirang-II will be equipped with a high-resolution camera to provide the nation with its own

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<sup>34</sup>) <http://www.kt.co.kr/kt/eng/frame.htm>

<sup>35</sup>) KoreaSat Unit 1 and 2 are loaded with 12 FSS (fixed satellite services: for communication purpose) transponders and 3 DBS (direct broadcasting services: for broadcasting purpose) transponders, respectively, and operate at geostationary orbit (GEO) 36,000 Km over the equator, and 116° of east longitude. Centering on Muju, North Jeolla Province, Korea (127° 5' of east longitude, 36° of north latitude), KoreaSat Unit 1 and 2 cover the entire Korean Peninsula, the Japanese Archipelago, and part of China and Russia.

<sup>36</sup>) Launched on September 5, 1999, KoreaSat Unit 3 has a 15 year life cycle, and is loaded with 24 units of FSS transponders (Kuband) and 6 units of DBS transponders, accommodating the combined capacity of KoreaSat Unit 1 and 2 transponders. Furthermore, it is loaded with 3 Ka band transponders, making available high speed satellite communication services. KoreaSat 3, as a cutting edge dual purpose satellite for communications and broadcasting, has set the stage for transforming Korea into an information power house in the future, by providing up to 168 satellite broadcasting channels and high speed multimedia services.

<sup>37</sup>) <http://satrec.kaist.ac.kr/english/SaTReC.htm>

<sup>38</sup>) [http://www.kari.re.kr/new\\_html/English\\_version/E\\_index4.htm](http://www.kari.re.kr/new_html/English_version/E_index4.htm)

<sup>39</sup>) Arirang-1 means the Korean popular and famous folk song.



communication, broadcasting and partly military use satellite KoreaSat-5 with a designed lifetime of 15 years in 2006.

### **3. Present situation and Future Launch Plan**

The Korean government officially approved the launch of the Korea Space Launch Vehicle (KSLV-1) in June 2009, which was expected to send the STSAT-2A satellite into orbit. The launch, tentatively scheduled for 11 August, received approval from the National Space Committee after experts reviewed all aspects of the flight plan established by the KARI. The launch of KSLV-1 on 25 August 2009 succeeded in taking off from the Naro Space Center. But first flight of the KSLV-I was not succeeded due to the fairing separation problem. The launch of Korea's space rocket was "partially successful" as the satellite aboard the rocket failed to reach the intended orbit on August 2010. Although the propellants of KSLV-1, operated properly and the 100-kilogram satellite successfully separated, the domestically-built satellite failed to be put into the desired orbit.

The two-stage rocket blasted off at the Naro Space Center, the country's first space port in Goheung county, South Jeolla Province. The second launch for STSAT-2 is scheduled in 2011. Another rocket will be launched in May 2011. Korea plans to launch a 1.5-ton multi-purpose commercial satellite on a fully indigenous rocket, named KSLV-2, possibly in 2018. Korea's first communication, ocean and meteorological satellite, dubbed Cheollian, was launched successfully atop the French Ariane 5-ECA rocket on June 27, 2010 from the Guiana Space Center at Kourou, French Guinea. Cheollian's first contact with the Korean operations center in the Korea Aerospace Research Institute (KARI) in Daejeon is scheduled to take place about ten days after liftoff. As the world's first multipurpose geostationary satellite capable of performing communication, ocean and meteorological functions, Cheollian will be in operations 36,000 km above the Korean Peninsula for the next seven years.

The KOMPSAT-2 project. It aims to wholly meet the nation's satellite demand and form a technology infrastructure that will make inroad as into the world space industry at a stage when the industry is improving the capability to develop and design highly advanced remote sensing satellites. The KOMPSAT-3 program was started in 2004 and planned to be launched in late 2011. It will operate at an altitude of 685 km in a sun-synchronous orbit with 4 years of mission life time using a payload capable of sub-meter class resolution. The mission objectives of the KOMPSAT-3 are to provide continuous satellite earth observation after KOMPSAT-1 and KOMPSAT-2 and to meet the nation's needs for high-resolution EO (Electro-Optical) images required for GIS (Geographical Information Systems) and other environmental, agricultural and oceanographic monitoring applications.

The goal of the KOMPSAT-5 project is to lead the development of the first Korean SAR Satellite using manpower and facilities from the KOMPSAT-3 program. It aims to support the national SAR (Synthetic Aperture Radar) satellite demand and form a technology infrastructure to

make inroads into the world space industry. The KOMPSAT-5, which started in the middle of 2005, will be launched in 2011 and its payload will be an X-band SAR and it will operate at Dawn-Dusk orbit between an altitude of 500km to 600km. It will execute all weather and all day observations of the Korean peninsula during its five year mission using the SAR payload, unlike KOMPSAT-1, -2 and -3. Alongside satellite research, KARI is also studying placing satellites in orbit via the Korea Space Launch Vehicle (KSLV) project. The KSLV-1 rocket will launch 100 kg class, locally assembled satellites to hundreds of kilometers above the ground in 2007 and KSLV-3 will take a 1.5 ton satellite to the heights in 2015. Our long-term basic plan is to garner the ability to develop in space on our own and by 2015 to grow to be a global contender in this promising field. Korea aims to join the ranks of the world's top 10 aerospace powers by 2015 through intensive research efforts and timely investment. According to the roadmap of South Korea's space exploration projects the MEST will also develop a large-size rocket that can carry 300 tons of freight into space by 2017 and will start building a space shuttle launching system in 2020. On November 2007 the Ministry of Education, Science and Technology announced the plan to send an unmanned probe to orbit the Moon in 2020 and to land another one on its surface in 2025. However, the MEST did not give any information about the costs of these projects or about details of their funding which is supposed to be dealt with at a later point of time<sup>40</sup>.

#### **4. Completion of Naro Space Center in Korea**

The Naro Space Centre is also the country's first space port to be completed at the end of 2008 at Woinarodo, Goheung county, Junlanam Province on the South coast of the Korean peninsula.

The first satellite launch site of Korea is covering an area of almost 5Mm<sup>2</sup> with about 370,000m<sup>2</sup> of building space. The Center completed construction and performed its first launch mission in 2009 with essential facilities and equipment, including the launch complex, the mission control center, the satellite and launch vehicle assembly complex, the tracking radar, the electro optical tracking system and the telemetry system etc. It will include a launch tower, a control tower as well as rocket assembly- and test- facilities and space simulators. Also there is a space science museum near the Naro space center gate to give visitors the opportunities to understand Korea's past, present and future challenges towards space.

By providing all these facilities and infrastructure, Naro Space Center will play a central role in Korea space development plan. It is expected that a Science Satellite-2 (100 kg) will be launched from there in using a Korean Science Launch Vehicle 1 early in April, 2011. Thereby Korea will be the 13th country in the World to launch a rocket into space autonomously. The space port will be State operated and run by the Korean Aerospace Research Institute<sup>41</sup>. Thereby Korea will be able to build rockets and satellites with indigenous technology and launch them into space from its national launching center.

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<sup>40</sup>) <http://www.tjkoehler.com/2007/11/21/korea-to-launch-moon-probe-by-2020>

<sup>41</sup>) <http://www.kari.re.kr>

## ***5. The Korean Astronaut***

Miss Yi So-Yeon, Korea's first astronaut, had returned to Earth aboard the (Russian) Soyuz TMA-11 Spaceship on April 19, 2008 after having accomplished her space mission of 10 days on board of the International Space Station (ISS)<sup>42</sup>. The successful completion of this task makes Korea the 36th country to send an astronaut into orbit. In addition, Miss Yi So-Yeon, a 29-year-old bio systems engineer, is the 49th woman in space and the second Asian astronaut after a Japanese specialist who completed two space missions in the 1990s. This event drew much public interest and support since Yi So-Yeon has made an outstanding contribution to the Korean knowhow in manned space technology and has promoted Korean culture worldwide by hosting a Korean style dinner in space using the national flag Taegeukgi performance on this occasion.

## ***6. International Cooperation for Space Program***

Since its foundation in 1989, KARI has expanded its international cooperation in the aerospace field to 28 organizations in countries including the USA, Russia, the UK, France, China, Israel, etc. Through collaboration, KARI has improved its R&D capabilities. Korea is also trying to participate in the ISS program. KARI has been in negotiations with NASA over the joint ACCESS mission. At the same time, talks with Boeing/NASA on participation in Zarya module in space shuttle are continuing.<sup>43</sup> The Inter-Governmental Agreement (IGA) between Korea and Russia for cooperation in space signed on September 2004. The Technology Safeguard Agreement (TSA) between Russia for space technology signed also on October 2006.

A Statement of Intent to Cooperate for Aerospace was signed by the Ministry of Education, Science and Technology (MEST) in Korea and the National Aeronautics and Space Administration (NASA) in the United States on October, 2008. The Joint Report for the plan in the field of the cooperative possibility for the space science, earth science, space communications, space exploration and aviation signed on October 13, 2010. The Inter-Governmental Agreement (IGA) between Korea and Russia for cooperation in space signed on September 2004. The Technology Safeguard Agreement (TSA) between Russia for space technology also signed on October 2006. Korea Aerospace Research Institute (KARI) signed a Statement of Intent to participate in the International Lunar Network at NASA Ames Research Center on July 24, 2008.

The International Lunar Network (ILN) is a network for the exploration of the lunar environment and resources by landing 6-8 stations on the lunar surface led by NASA. The Statement of Intent was drawn up based on a series of discussions held since March 2008, and signed by space agencies from nine countries (U.S., Canada, Britain, Germany, France, Italy,

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<sup>42</sup>) <http://english.chosun.com/w21data/html/news/200804/200804190001.html>

<sup>43</sup>) Doo Hwan Kim, Korea's Space Development Programme: Policy and Law, Space Policy (Vol. 22), 2006, at 110-117.

Japan, India and Korea).<sup>44</sup> The 60<sup>th</sup> International Astronautical Congress (IAC) co-hosted by the Korea Aerospace Research Institute (KARI) and Daejeon Metropolitan City in Korea was held at Daejeon Convention Center from October 12~16, 2009. The 60<sup>th</sup> Daejeon IAC was attended approximately 3,000 representatives from national and international space agencies, businesses, and space professionals from about 60 nations was participated to the said 2009 Daejeon IAC. The 2009 Daejeon IAC<sup>45</sup> attendees gained the information about current space projects, program and related technologies and law.

## V. Conclusion

Korea has been carrying out its space program step by step in accordance with its national space plans. Several accomplishments from 2010 onward marked milestones in Korean space technology development. From now on Korea anticipates the accomplishment of its space programs proactively and will continuously strengthen exchanges and cooperation with all countries in the World under the principle of equality, friendly relations and mutual benefits. Together with all other peoples around the globe Korea will make due contributions towards the peaceful utilization of space resources and the promotion of human progress and prosperity.<sup>46</sup> In this connection it would also be very important and necessary to create an Asian Space Agency (ASA) for strengthening cooperation within the Asian space community towards joint undertakings. ASA could then act as a catalyst for common efforts in space exploitation and allow resources, technology, manpower and finances to be centrally managed in an independent fashion for the benefit of Asian countries and could also fulfill a similar function as the European Space Agency among its member States.

This could be regarded as a new road for Asia's space policy and could also coordinate the broad thinking needed to meet new challenges in Asian countries.<sup>47</sup> It could even be possible to establish an ASA as well as Asian Center for Space Law in order to strengthen the international research cooperation and friendship relations among the Asian countries so as to exploit efficiently the natural resources (Helium-3 etc.) in the moon and other celestial bodies. Since the Asian space industry will become a very promising market in the 21st century, we can expect severe competition between the Asian countries and the developed countries, such as the USA,

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<sup>44</sup>) <http://rescommunis.wordpress.com/2008/08/12/kari-signs-a-statement-of-intent-for-participation-in-the-ila>

<sup>45</sup>) IAC is one of the most prestigious gatherings of the international space community with a long history started in Paris in 1950. Every year, generally in early October, the International Astronautical Federation (IAF) together with its associates the International Academy of Astronautics (IAA) and the International Institute of Space Law (IISL), holds the International Astronautical Congress (IAC) which is hosted by one of the national societies, a member of IAF. The IAF has members in 48 countries and the membership is rapidly evolving, including nearly 200 organisations.

<sup>46</sup>) [http://www.cnsa.gov.cn/main\\_e.asp](http://www.cnsa.gov.cn/main_e.asp)

<sup>47</sup>) Doo Hwan Kim, Some Considerations on the Possibility of Establishing an Asian Space Agency, *Zeitschrift für Luft-und Weltraumrecht /German Journal of Air and Space Law*, (Vol. 50), 2001 at 397-408.

Russia, Canada, and the EU, who will be keen to occupy the Asian market.

To win this severe competition, it will be necessary for Asian peoples to work together, to strengthen cooperation in research and to establish friendly relations for the benefit of the air and space industry in Asia which should be supported from the highest political level and should be based on oriental ideology, ethics and creative ideas. This could be effected e.g. by a solemn statement by Heads of State setting out objectives and prospects for the long term. It should be noted that this political drive will be necessary not only to set up the organization, but also during a subsequent period.