

**Korean Domestic Laws and Bilateral Treaties on  
Space Activities**



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# The Evolution of Space Activities in Korea

# The Evolution of Space Activities in Korea

## 1. Mid and Long Term Basic Plan of Space developments

- Mid-Term(1996-2015) - development of 20 satellites and launching rockets, construction of space center(launching site), establishing cooperative relationship with foreign countries
- Long Term(2016- 2030) - the first launch by Korea developed launch vehicle in 2018, Sending a unmanned probe to orbit of the Moon in 2020; landing another one on its surface in 2025; start building a space shuttle launching system in 2020.

# The Evolution of Space Activities in Korea

## 2. Satellite Development

- KITSAT 1, 2, 3- KITSAT 1 developed by KAIST with Surrey University(UK)'s help in 1992; KITSAT 3 was the first one designed, manufactured, tested and operated, the whole process by the Korean technology
- Koreasat 1,2,3,5 in GSO for telecommunications and broadcasting purposes
- STSAT(Science and Technology Satellite) 1, 2, 3 in LEO
- Komsat 1,2,3,5 for multi-purpose use in LEO; Komsat 2 1m resolution
- MBSAT in GSO launched as a Korea-Japan joint venture project in 2004(for Digital Multimedia Broadcasting:DMB, Japanese MBCo and Korean SK Telecom)
- COMS(Communication, Ocean and Meterological Satellite, 2010)

# The Evolution of Space Activities in Korea

## 3. Astronauts Training

- Korean Astronaut Program managed by KARI
- Ms. Yi So-yeon visited the International Space Station(ISS) on board a Russian Soyuz TMA-11 spacecraft in 2008 after intensive training in Russia
- Korean public waked up to the outer space things/ TV broadcast the Yi's visiting the ISS

# The Evolution of Space Activities in Korea

## 4. Space Center Construction (Launching Site)

- Naro Space Center- launching tower, control tower, test facilities, space simulators in 2009; the 13th in the World.

## 5. Launching vehicle Development

- KARI played major role in the development of launching vehicle
- KSR-I (single stage sounding rocket, 1993)
- KSR- II (Two-stage sounding rocket, 1998)
- KSR- III (liquid propellant engine system, 2002)
- KSLV-1 ( a small satellite launch vehicle) with the scientific and technical assistance from Russia/ failed two times(2009/2010)

# Domestic Laws on Space Activities



# Domestic Laws on Space Activities

## 1. Major related Agencies

- MEST (Ministry of Education, Science and Technology)
- MKE (Ministry of Knowledge Economy)
- KARI (Korean Aerospace Research Institute)

\* KASI (Korea Astronomy and Space Science Institute)—  
Tracing Space Debris

# Domestic Laws on Space Activities

## 2. Aerospace Industry Development Act (1987)

- Implemented and supervised by MKE
- the first law on space activities in Korea
- aims to promote national interests through reasonable support and efficient research and development activities
- covers air industries as well as outer space industries
- establishes the Aerospace Industry Development Policy Council
- devise basic plan of the promotion of the aerospace industry
- coordinate important aerospace policy matters among different ministries

# Domestic Laws on Space Activities

## 3. Outer Space Development Promotion Act (2005)

- becomes the most important act in the area of outer space
- aims to promote national security and economic interests through orderly promote and efficient use and management of space objects and thereby facilitate peaceful use and scientific exploration
- definitions- space damage
- establishes National Space Committee
- authorites the Space Development Promotion Basic Plan
- establishes the process for the registry of space objects
- issuing and cancelling of launching license
- establishes Space Accident Investigation Committee
- obliges the launcher to take insurance for third party liability

# Domestic Laws on Space Activities

## 4. Outer Space Damage Compensation Act (2008)

- rights of indemnification of the Korean government to those responsible launchers
- fault liability for damage incurred in space and non- applicability of Product Liability Act to space damage
- limit of damages to 200billion Won(equivalent to 176million dollars)
- Obligatory insurance taking for launching
- supplementary compensation by the government for damage exceeding the limit

## 5. Outers

- Radio Wave Act, Metrology Act, Broadcasting Act, Internet Multimedia Broadcasting Act, etc. (13 Acts)

# Bilateral Agreements

# Bilateral Agreements

## 1. The Agreement with Ukraine(2006)

- aims to promote mutually beneficial scientific, technological, industrial, economic and other cooperation related to peaceful uses of outer space.
- implementing agency- MEST (Korea); National Space Agency(Ukraine)
- establishes a Joint Committee
- intellectual property- arranged by implementing agreement
- liability- establishment of specific system of assuming responsibility for the respective damages as a part of each implementation agreement/ Liability Convention(1972) will be applied in the situation in which the convention can be applied.

# The Agreement with Ukraine(2006)

## ■ Area of Cooperation

- basic space science, meteorology, remote sensing, astronomy, space biotechnology, ionosphere and space plasma;
- scientific and technological instrumentation related to space science; satellite systems development;
- research and development of onboard remote sensing systems;
- space telecommunications; space transportation systems;
- joint research and development activities, construction, production, launch operation and utilization of launching vehicles, satellites and other space systems;
- ground infrastructure of space systems, including launch centers

# Bilateral Agreements

## 2. The Agreement with Russia(2004) and its Protocol (2006)

- aims to promote mutually beneficial scientific, technological, industrial, economic and other cooperation related to the exploration and use of outer space for peaceful purposes.
- competent agency- MEST(Korea); Federal Space Agency(Russia)
- liability- cross waiver
- intellectual property- separate agreements or the Annex on IP



# The Agreement with Russia(2004)

## ■ Area of Cooperation( 1/2)

- exploration of outer space, including astrophysical research and planetary studies;
- remote sensing of the Earth from outer space;
- space materials studies;
- space medicine and biology;
- space communications, satellite broadcasting and related information technologies and services;
- satellite navigation and related technologies and services;

# The Agreement with Russia(2004)

## ■ Area of Cooperation( 2/2)

- research and development, production, operation and other activities related to spacecraft, devices and systems, as well as corresponding ground-based means;
- development of launch vehicles and other space transport systems, including the ground infrastructure necessary for their testing, maintenance and launching;
- provision and use of launch services; use of spin-offs of joint activities in producing new space equipment and technology in other sectors of economy and space environment protection, including the control, prevention and reduction of space debris.

# Bilateral Agreements

## 3. The Ministerial Joint Report for Cooperation (MEST) with NASA (2009)

- not official document
- Negotiation for the official Agreement is going on for now

# Concluding Remarks

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- **Coordinating Agency**
- **Laws on Remote Sensing**
- **Amending Compensation Act**
- **Conflicts among Laws**



Thank you

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