Policy System of the Basic Plan on Space Policy

(1) ensuring space security, (2) promoting use of space in civil sector,

(3) maintaining and strengthening the foundations of industry and science and technology

Plan for implementing space projects aimed at achieving the goals of space policy

Satellite positioning

- Establish a 7-satellite constellation of Quasi-Zenith Satellites
- ⇒Launching 2nd, 3rd, 4th Quasi-Zenith satellites in JFY2017 to establish 7-satellite constellation by around JFY2023. launching successor to Michibiki initial model in JFY2020, and system maintenance for R&D improving performance
- ⇒Safety confirmation system for strengthening regional disaster prevention function including tsunami protection measures realized in JFY2018.

Space transportation systems

- New-Type Core Rocket (H3 rocket)
- ⇒Completion of the detailed design in JFY2017, aiming for the first launch in 2020.
- Epsilon rocket
 - ⇒Start development in synergy with H3 rocket from JFY2017.
- Launch sites
- ⇒Establish the launch site certification criteria of Space Activities Act in JFY2017.

Satellite communications and satellite broadcasting

- Next-generation Engineering Test Satellite
- ⇒Start detailed design in JFY2017, aiming for launch in 2021.
- Optical Data Relay Test Satellite
- ⇒Aiming the launch in 2019.
- X-Band Satellite-Based Defense Communication Network
- ⇒Launching 3rd X-Band Satellite in round JFY2020.

Space Situational Awareness

- Develop SSA-related facilities and establish a single operational framework for the whole government
- ⇒System Design and framework development
- ⇒ Discussions concerning the strengthening of partnerships with the U.S. Strategic Command

Satellite remote sensing

- Increase the functions and number of Information Gathering Satellites
 - ⇒ Begin developing Optical Surveillance Capability
 Augmentation Satellites #1, developing 1st data-relay
 communication satellite, and launching 6th optical satellite in
 JFY2017. Consideration with the plan of creating a 10-satellite
 constellation.
- Operationally responsive small satellite
 ⇒Conduct research into operational concepts, etc.
- Advanced optical/radar satellite
 ⇒Launching in JFY2020
- Geostationary Meteorological Satellites
 ⇒Begin the production of successor by JFY2023.
- Greenhouse Gas Observing satellites (GOSAT)
 ⇒ Consider putting the Successor Sensor of Global Change Observation Mission - Water (GCOM-W) on GOSAT Unit 3 sensor in JFY2017.
- Other remote sensing satellites
 ⇒Consideration for realizing the infrastructure to contribute to utilization of satellite data.

Maritime Domain Awareness (MDA)

⇒Start maintenance "maritime situation display system" in JFY2017. Consider the information provision to the system and investigate . Investigate and examine the possibility of further utilization of satellite information

Early-warning functions, etc.

⇒Promote research into satellite-mounted dualwavelength infrared sensors. Aiming piggy-back on advanced optical satellite launching In JFY2020.

Improving the overall resiliency of space systems

⇒Formulate a concept. Conduct concrete measures from JFY2017.

Space science and exploration and manned space activity

- Start development of X-ray astronomy satellite substitute, aiming for launch in JFY2020.
- ISS (International Space Station): 2024年まで延長、Start detailed design for function aggregated transfer vehicle "HTV-X"
- International human exploration: Host eh 2nd International Space Exploration Forum (ISEF2) in Tokyo later in JFY2017.

Measures to strengthen the industrial case and science and technology infrastructure that will support individual projects

Comprehensive initiatives to encourage new entrants to the space industry and expand the space utilization

- Framing "Vision for the Space Industry" by Spring, 2017 (Promotion of Space Equipment / Utilization Industry)
- Based on the establishment of the "bill concerning remote sensing", state "Remote Sensing Satellite Policy" to ensure the balance between regulation and promotion in the first half of 2017..
- Support for the creation of <u>new business and services that utilize G-spatial information</u> (social infrastructure development and maintenance, disaster prevention and mitigation transport and logistics, agriculture, forestry and fisheries, and personal services and tourism)

Upgrade the environment to facilitate the stable supply of core components for space systems

- Follow up the technology strategy for parts and components in JFY2015.
- Provide in-orbit demonstration opportunities (release of microsatellites from ISS, materials exposure testing, etc.)

Initiatives aimed at expanding space utilization in future

- Consider pioneering social demonstration experiments in conjunction with the <u>Tokyo Olympics and</u>
 Paralympics.
- Demonstration tests of LNG propulsion systems, reusable space transportation systems R&D, space solar power generation etc.
- Research on future efforts while gathering international trends on exploration and development of space resources.
- Countermeasures space debris with public and private sectors (international rules and guidelines, R&D etc)

Measures to strengthen systems and frameworks supporting the development and use of space as a whole

Comprehensive Strengthening of policy promotion framework

Strengthening of survey, analysis, and strategic planning functions

Comprehensively strengthen domestic human infrastructure and increase public understanding

Enhancement of the legal system, etc.

- <u>Law on space activities</u> and <u>Law related to satellite remote sensing</u>
 ⇒Established in the Diet in November, 2016, promulgated on 16th November, 2016.
- ⇒Law on space activities is enforced within 2 years after promulgation, Law related to satellite remote sensing is enforced within 1 year after promulgation

Promoting space diplomacy and enhancing space-related overseas expansion strategies

Establish and strengthen rile of law in outer space

Contribution to the creation of rules as part of the international community

Strengthening international space cooperation

U.S., France, EU, Australia, APRSAF etc.

Promoting international cooperation through industry-academia-government participation

- Consideration of establishment of framework to promote monolithically by public and private sectors
- Promoting the efforts based on "basic policy of capacity building for developing countries in the space field"
- Promoting of ASEAN cooperation pilot projects including Thailand and Indonesia.