Space Policy Overview
Japan

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National Space Policy Secretariat
Cabinet Office, Government of Japan
Government structure in relation to space policy

Strategic Headquarters for Space Policy
(Chairman; the Prime Minister)

Request for advice

Space Policy Committee
(9 committees from industry, academia etc.)

Cabinet Office
National Space Policy Secretariat
(NSPS)

Management of QZSS

[Cooperation among ministries]

Cabinet Satellite Intelligence Center (CSICE)

MLIT: Ministry of Land, Infrastructure and Transport
MOE: Ministry of the Environment
MOD: Ministry of Defense

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MOD: Ministry of Defense

MIC: Ministry of Internal Affairs and Communications
MEXT: Ministry of Education, Culture, Sports, Science and Technology
METI: Ministry of Economy, Trade and Industry

MOFA: Ministry of Foreign Affairs of Japan
NPA: National Police Agency
MAFF: Ministry of Agriculture, Forestry and Fisheries of Japan

Japan Aerospace Exploration Agency

Intelligence
Meteorological Satellite
Greenhouse Gases Observing
National Defense
Communications and Broadcast
Science and Technology Development
Space Industry Promotion

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The Basic Space Law

The Basic Space Law (2008)

KEY CONCEPT
Promote space utilization as means for security/civil/commercial purposes

Three Pillars of National Space Strategy

(1) Ensuring space security
1. Ensuring stable use of outer space
2. Strengthening security capabilities utilizing space
3. Strengthening US-Japan alliance through space cooperation

(2) Promoting use of space in civil area
1. Utilization of space for tackling global challenges and realization of safe and affluent society
2. Creation of new industries related to space

(3) Maintaining and strengthening industrial and Science &Tech basis
1. Maintaining and strengthening space industrial basis
2. Maintaining and strengthening science and technology basis which contributes to realizing outcomes
1. Ensuring space security
Conduct satellite control

Analysis system

Radar

Radar

STRATCOM (CSpOC)

SDF (Self Defense Forces)-owned systems
- Automatic warning and control system (JADGE: Japan Aerospace Defense Ground Environment)
- Command system of respective services, etc.

Space debris, etc.

Satellite

Geostationary Orbit (GEO)

Low Earth Orbit (LEO)

Deep Space (Approx. 5,800km)

Near Earth

JMOD SSA System

Consolidate SSA information of Japan

Information sharing with USF, who owns global SSA network

JAXA

Radar

Optical telescope

Information sharing

Satellite operators

Alert

Link

USF (United-States Forces) sensor constellation

Radar

Optical telescope

SSA satellite

STRATCOM (CSpOC)

USF
Under the leadership of Minister of State for Space Policy, a “Task Force for Space Debris,” comprised of State Ministers related and the President of JAXA, was held twice this year. The purpose is to discuss the efficient measures tackling the issue of space debris, and the task force agreed on and concluded the future initiatives for Space debris.

Future initiatives for Space debris (overview)
- Improve debris observation and prediction capability
- Mitigate Space debris
- Prepare International and domestic rules
- Public awareness activity

PM ABE made a statement on space debris issue at the G20 Osaka Summit

Minister HIRAI had a public occasion at the international Media Center of the G20 Osaka Summit
2. Promoting use of space in civil area
The Government of Japan announced in March 2018 a new initiative to support the development of space startups.

Support menu includes:
- Investor matching service for space startups (S-Matching)
- Business Idea Contest (S-Booster)
- A networking initiative for individuals/entities interested in new space business (S-NET)
- R&D and demonstration project support
- Financial support from public and private investors (100 billion yen ($940 million) over 5 years)

(PM Shinzo Abe made a speech on March 18, 2018)
The NSPS with JAXA will launch a space business idea contest, “S-Booster” in Asia.
We will invite a lot of space business ideas from Asia and Oceania regions.
Creating new space startups in Asia by supporting the commercialization of each idea in collaboration with Japanese industries.

Japanese Space Asset
- Satellite images
- Rocket services
- QZSS etc

Creating new space startups in Asia
“QZSS Utilization Promotion Task Force” lead by Minister for Space, involving State Ministers related, JAXA, NEDO and private sector, was set up in July 2018.

The task force had meetings 5 times so far, to share good practices using QZSS, leading projects and challenges.

Promotion of QZSS utilization (1/2)

- Unmanned agricultural machines
- Snowplow operation
  - On the road covered with snow, where on-board sensors cannot distinguish the white lines
- Drone operation
  - Landing on a white corner centered at 1m square
3. Maintaining and strengthening industrial and Science & Tech basis
Space Science mission (HAYABUSA-2)

Mission Outline

- Launch: 2014
- Earth Swing-by: Dec. 2015
- Asteroid (Ryugu) Arrival: June-July 2018
- Asteroid remote sensing
- Small rovers and lander release
- Multiple samplings
- Touchdown point
- Departure: End of 2019
- Sampling from artificial crater
- Earth Return: End of 2020

Hayabusa2 touchdown sequence were completed twice without any problems Feb. and July 2019
Vice President Pence announced that US will aim for US astronauts to land on the moon with US rockets within next five years (March 26, 2019, the 5th US National Space Conference).

- NASA will land US astronauts on the lunar surface by 2024.
- Landing candidate site is the Moon’s South Pole.

Strategic Headquarters for National Space Policy decided to participate in the program, for the time being, focus on the following four items of cooperation. (Decision of Strategic Headquarters for National Space Policy  Oct 18, 2019)

① Provision of technologies and equipment
② Transportation using HTV-X and H3
③ Lunar surface data and technologies contributing to the selection of landing sites
④ Developing vehicles for lunar surface exploration
The robot arm of the Japanese ISS experiment module “Kibo” is capable of deploying small/micro-satellites to the orbit.

This allows emerging/developing countries to access space in a less expensive way than using launch vehicles.

- **Philippines’ small satellite DIWATA-1** (April 2016)
- **BIRDS-1 project cubesats** developed by Bangladesh, Ghana, Japan, Mongolia, and Nigeria (July 2017)
- **BIRDS-2 project cubesats** developed by Bhutan, Malaysia, and the Philippines (August 2018)
- **BIRDS-3 project cubesats** developed by Sri Lanka, Nepal, and Japan (June 2019)
Multi-GNSS Asia (MGA) is an international association which promotes multi GNSS in Asia and Oceania regions, and encourages GNSS service providers and user communities to develop new applications and business.

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<td>11th August 2019</td>
<td>GISTDA</td>
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The 11th MGA Conference in Bangkok in 2019

Co-hosted by GISTDA on the occasion of Thailand Space Week

**About 350 participants** from government agencies, industry, academia from **20 countries**.

The next (12th) MGA Conference

- **Date:** August 2020
- **Venue:** Bangkok, Thailand
Japan’s Basic Plan for space policy is being reviewed now and it will be revised by next spring. Main agenda is the following;

- Enhance Promotion for Space Industry, especially “New space”
- Establish QZSS 7 constellation in 2023, promoting utilization of QZSS
- Strengthen and Change “Space Security” with Partnerships
- Prepare to contribute to “International Space Exploration”
- Promote international cooperation with emerging countries
Thank You

Cabinet Office