Japanese Space Policy
-The Basic Plan for Space Policy-

Jun Yanagi

Director, International Science Cooperation Division, Ministry of Foreign Affairs

Secretariat of Strategic Headquarters for Space Policy

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Contents of this Presentation

  - Based on the Basic Space law
- Strategic Headquarters: Established in Aug. 2008

- Legislation on Space Activities
- Restructuring of Space related Organization
- Formulation of Basic Plan for Space Policy
  - The Vision: released in Dec. 2008

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The Outline of Basic Plan

I. Status of Basic Plan for Space Policy

II. Basic Policy to Promote the Utilization and R&D of Space
   - 6 Basic Pillars of the Utilization and R&D of Space

III. Measures
   The Government Should Take Comprehensively and Systematically measures of Space
   - 9 Satellite Systems and Programs
   - Promotion of Specific Measures for Each Area

IV. Promote Measures under the Basic Plan

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I. Status of Basic Plan for Space Policy

This Basic Plan is to solve problems we have on the utilization and R&D of space, such as:

- **Lack of comprehensive strategy as a whole nation**
- **Shortage of experience of the utilization of space**
- **Lack of competitiveness of industry**

This Plan is based on article 24 of the Basic Space Law, and **Five years Program, foreseeing the next ten years**, to promote measures that the Government should take comprehensively and systematically with regard to the utilization and R&D of Space.
II. Basic Policy to Promote the utilization and R&D of Space

◆ Enhance R&D capability, Shift the Policy Priority to "Enhancing the Utilization of Space"

◆ Promote the Governmental Space Programs effectively under the Strategic Headquarters’ leadership

◆ Goals are "Contribution to the international community" and "Better Quality of Life", applying our superior technology and talented people as much as possible

• Utilization and R&D of Space
  - for the rich, secure and safe life of our nations
  - for contributing to the international community with regard to global problems

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II. Basic Policy to Promote the utilization and R&D of Space

**<Six Basic Pillars of the Utilization and R&D of Space>**

1: **For a Rich, Secure and Safe Life**
- Promote utilization and R&D of Space to deal with various needs of our society, such as:
  - Public Safety, Preservation and Care of the territorial land,
  - Smooth Supply of Food, National Resources and Energy
  - Resolution of global problems (realizing a low carbon society)
  - better quality of life (high spec. positioning system, etc.)
  - continuous growth of industry and creation of employment

2: **Security through the Utilization of Space**
- Security through the utilization of Space, while maintaining our exclusively defense-oriented policy

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II. Basic Policy to Promote the utilization and R&D of Space

<Six Basic Pillars of the Utilization and R&D of Space>

3: Promote the Utilization of Space for Diplomatic Policy

- "Utilization of Space for Diplomatic Policy"
  - Apply our space technology for protecting human beings from the threat of disaster, climate change, and others
  - Contribute to Global Environmental Issues through GEO, etc

- "Diplomatic Policy to promote the Utilization of Space"
  - Make diplomatic efforts for establishing the appropriate rules in space activities, in accordance with space related Treaties
  - Strengthen human development playing an active part in space related international fora.

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II. Basic Policy to Promote the utilization and R&D of Space

<Six Basic Pillars of the Utilization and R&D of Space>

4: Promotion of *leading-edge R&D*

- Breakthrough for new technology and creation of an energetic future by leading-edge R&D such as
  - space science and manned space activity that expand the area where human beings can exist
  - space photovoltaic which contributes to resolving the global environmental and energy problems

Utilizing proactively international cooperation
II. Basic Policy to Promote the utilization and R&D of Space

<Six Basic Pillars of the Utilization and R&D of Space>

5: Foster Strategic Industries for the 21st Century
- The space industry is:
  • an important base that supports Space Activity of our country
  • so wide that it includes the utilization industry, and has a ripple effect to other industries
- Foster the Space Industry as a strategic one for the 21st century, and strengthen international competitiveness

6: Consider the Environment
- Promote the utilization and R&D of space, considering the effect on the environment
- Take the lead on environmental safeguards of space cooperating with the international society

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The Government should promote comprehensively and systematically the following 9 Satellite Systems and Programs (5 Satellite Systems and 4 Programs) under the 6 pillars

<table>
<thead>
<tr>
<th>A: Land and Ocean Observing Satellite System to contribute to Asia and other regions</th>
</tr>
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<tbody>
<tr>
<td>--- Achieving Public Safety, Preservation and Care of territorial land, etc</td>
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</table>

<table>
<thead>
<tr>
<th>B: Global Environmental Change and Climate Observing Satellite System</th>
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<tbody>
<tr>
<td>--- More precise climate forecast, Smooth Supply of Food, etc</td>
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</table>

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<tr>
<th>C: Advanced telecommunication Satellite System</th>
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<tr>
<td>--- Secure the means of communication in the event of disaster</td>
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| D: Positioning Satellite System |

| E: Satellite System for National Security |

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### III. Measures

**< 5 Satellite Systems and 4 Programs>**

<table>
<thead>
<tr>
<th>Section</th>
<th>Program</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F:</td>
<td>Space Science Program</td>
<td>--- Create the world-leading scientific results which lead the world effort</td>
</tr>
<tr>
<td>G:</td>
<td>Manned Space Activity Program</td>
<td>--- Achieve a healthy long life society, Create the world-leading scientific results, Expand the area where human beings can exist</td>
</tr>
<tr>
<td>H:</td>
<td>R&amp;D of Space Photovoltaics Program</td>
<td>--- Achieve new energy that supports a low carbon society</td>
</tr>
<tr>
<td>I:</td>
<td>Small Size Certification Satellites Program</td>
<td>--- New industry, expansion of the space industry and creation of employment</td>
</tr>
</tbody>
</table>

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### III. Measures

#### < Promotion of Specific Measures for Each Area >

#### 1: For a Rich, Secure and Safe Life

- Establish a **Satellite Data Utilization System**
  - Increasing user-friendliness of the data for both specialists and for ordinary citizens
  - Establish Data Archive and Contribution System, so that the user can access several satellite data at once, which is called "One Stop Service"
  - Establish the data policy, including the policy of charge, etc

#### 2: Security through the Utilization of Space

- Promoting the discussion on how to apply the space technology in the field of the security arrangement compatible with Japan's exclusively defense-oriented policy

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*System A, B, C, D*

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*System E*
III. Measures

< Promotion of Specific Measures for Each Area >

3: "Utilization of Space for Diplomatic Policy" and "Diplomatic Policy to promote the Utilization of Space"

- Contribution for the Asia Pacific and other regions
  • Enhance cooperation under the “Asia-Pacific Regional Space Agency Forum (APRSAF)”
    (in adequate cases, by using official development assistance)
  • Contribute additionally to the Middle East, Africa, Central and South America

- Contribution for global problems
  • Contributing to the exploration of policy options for the prevention of global warming by “IBUKI”, etc

- Enhancing bilateral relations
III. Measures

< Promotion of Specific Measures for Each Area >

4: Promotion of leading-edge R&D

- Promote space science, challenging scientific discovery
- Promote manned space activity
  - Decide comprehensively whether to prolong the operation of the International Space Station to after 2016
  - Improve the capability to realize manned space activity
  - Set it an important target to probe the moon
  - Consider about the probe of the moon within a year, aiming to probe the moon by a two-legged robot by around 2020
- Promoting R&D of the forefront area to contribute to environmental and energy measures (Space Photovoltaics, etc)
III. Measures

< Promotion of Specific Measures for Each Area >

5: Foster the Space Industry as a Strategic one
- Strengthen international competitiveness
- Promote constructing a space transportation system and the maintenance of launch shooting ranges, etc
- Promote industrial activity by utilizing the capability of medium and small-sized enterprise, venture companies, and universities

6: Environmental Safeguards
- Consider the influence to the ground environment and promote Spin-off of technology related to space to environmental areas
- Safeguards of Space Environment
  • Promote observation of orbital objects to identify the debris population better, mitigation of debris, and coordination to remove them, and participate proactively in making an international frame
III. Measures

< Promotion of Specific Measures for Each Area >

7: Invest in the next generation; facilitate the participation of people

- Foster engineers and researchers contributing to the next generation
  • Strengthen space education and research at the universities, etc.
  • Foster practical engineers and researchers through cooperation between the space agency and universities

- Promote the education of children, public relations
  • Expand the chance of real or virtual experiences

- Promote measures in which the people participate
  • Contests in which the people participate
  • Make efforts to request people's wisdom about the space policy, etc.
IV. Promote Measures under the Basic Plan for Space Policy

(1) **Structure** to promote measures based on the Basic Plan

(2) Ensuring the necessary **budget and personnel** for the execution of the measures

(3) **Follow-up and announcement** of how far the measures are executed

(4) Strengthening the **investigation and analysis** function of international trends

(5) Establishment of **legislation concerning Space Activity**

(6) Ensuring the **cooperation and correspondence with policies** other than space
Thank you for your attention!