

Space Security Initiative

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National Space Policy Secretariat,
Cabinet Office, Government of Japan

The Security Environment in Space

Competition in Space

Space has become a major arena for geopolitical competition for national power over diplomacy, defense, economic, and intelligence, as well as the science and technology and innovation that support these national powers.

Growing Threats and Risks in Space

- Threats in space are growing rapidly. Some countries are developing and deploying a variety of ground-based and space-based counter-space capabilities, including Direct-Ascent Anti-Satellite (DA-ASAT), which targets satellites in low earth orbit(LEO) by kinetic means, as well as non-kinetic means such as cyber and electronic attacks.
- Various risks are also expanding in space. Notably, the rapid increase in the number of space objects, including space debris and satellites, is resulting in a growing congestion in space.

Advancing Innovation in the Private Sector

- Innovations in space technology are rapidly advancing in the private sector.
- Innovation expands the opportunities of new space business.
- A clear identification of the government's demands in space security to the private sector will facilitate private investment and vitalize the space industrial.

Objective and Approaches for Space Security

OBJECTIVE

- To promote the peace and prosperity of Japan and the safety and security of our citizens through outer space.
- Together with our ally, like-minded countries, and others to maintain the stable use of and free access to outer space.

Approach 1:

Radically Expand the Use of Space Systems for National Security

- (1) Establishment of a Wide-Area, High Revisit Rate, High Precision Information-Gathering Posture from Space
- (2) Responding to Missile Threats by Space Systems
- (3) Establishment of a Multi-Layered, Anti-Interception and Anti-Jamming Satellite Communications Posture
- (4) Enhancement of Satellite Positioning Functions
- (5) Building a Large-scale and Flexible Space Transportation Posture

Approach 2:

Ensuring Safe and Stable Use of Outer Space

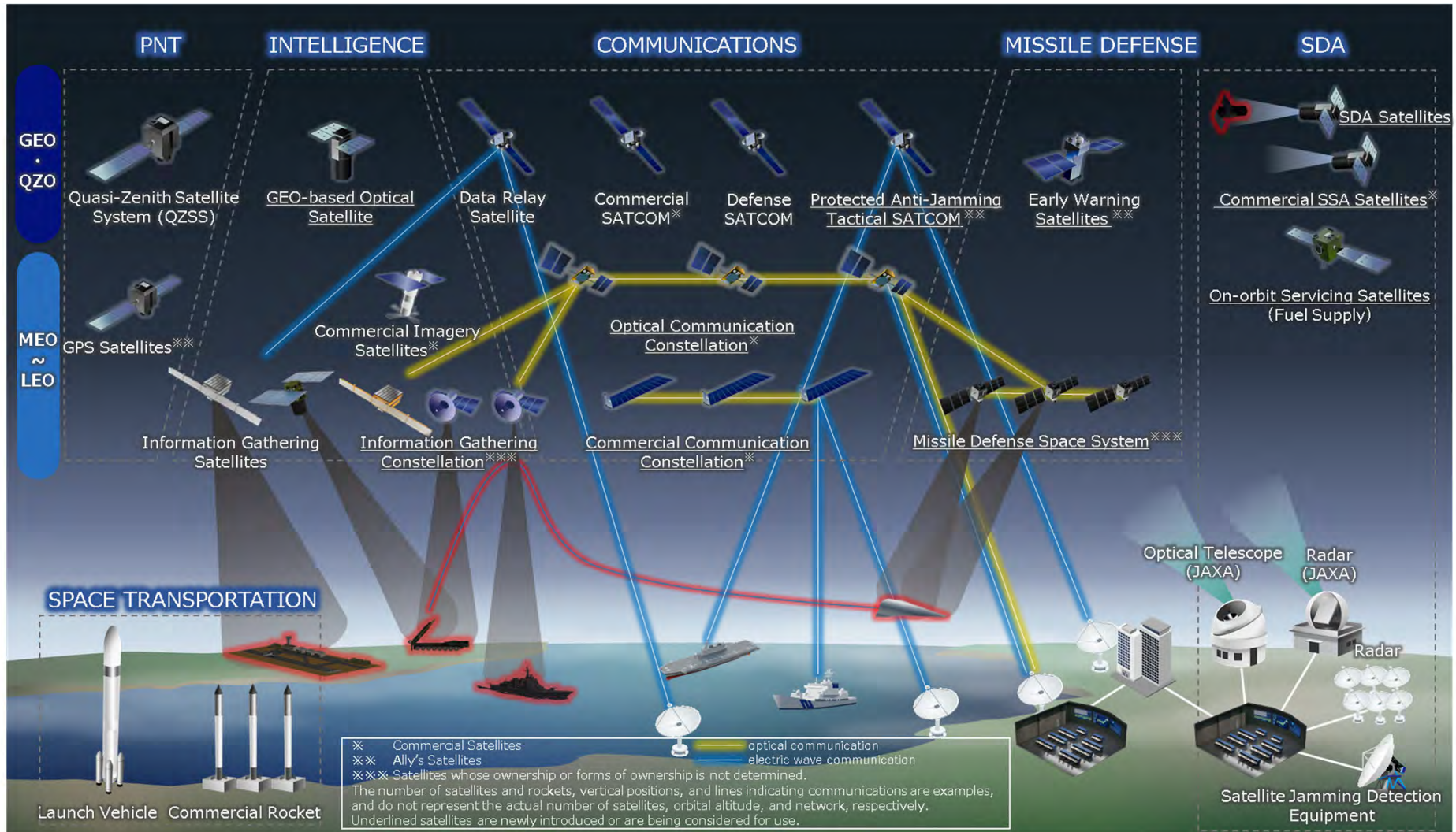
- (1) Enhancing and strengthening of space Domain Awareness
- (2) Satellite Life Cycle Management Using On-Orbit Services
- (3) Government Decision-Making and Response in Unforeseeable Contingencies
- (4) Proactive Contribution to International Norms and Rules in Outer Space

Approach 3:

Realization of a Virtuous Cycle of Security and Fostering Space Industrial Base

- (1) Strengthen the Public-Private Joint Efforts to Develop Advanced and Fundamental Technologies
- (2) Ensuring Autonomy of Critical Technologies
- (3) Enhancing Implementation Capabilities through the Comprehensive Efforts of the Public and Private Sectors
- (4) Strengthening JAXA's Role as a Center of Excellence for Space Development
- (5) Promoting Privately Led Development and Expanding Government Support
- (6) Selective and Comprehensive Support for Competitive Companies
- (7) Diversifying Public-Private Investment and Contracting Schemes Corresponding to the Level of Technological Maturity

Space Architecture for National Security



Critical Requirements

Compatibility and interoperability of satellite data

Cyber security and information security

Resilience against threats and risks in space

Economic efficiency through the use of commercial services