Promotion of Defense Industry Activity

3rd of May
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Japan
Today’s Topic

1. METI’s Role

2. Overview of the Japanese Defense Industry

3. JP and U.S. companies’ roles of International Cooperation

4. Promotion of Japanese Defense Industry Activity
1. METI’s Role

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METI’s Mission

METI

Industries

Products
- Materials
- Robotics
- Aerospace
- Automobiles
- Defense
- Electronics
- Medical/Health care

Service
- AI/BD/IoT
- Cybersecurity
- Distribution

Energy
- Nuclear
- Fossil Fuel
- Renewable Energy

Regulatory policy
- Explosives
- Chemical /Bio
- Environment /Energy

R&D&Innovation, IPR, Standard

Trade

Small and Medium Enterprise Policy
Trade Control
(Export, import, inbound direct investment)

Maintain and Strengthen Defense Industrial and Technological Bases

*In close cooperation with industry and other ministries.
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5
Japanese Defense Business in Global Landscape

<table>
<thead>
<tr>
<th></th>
<th>LM</th>
<th>Boeing</th>
<th>BAE</th>
<th>Raytheon</th>
<th>GD</th>
<th>MHI</th>
<th>KHI</th>
<th>IHI</th>
<th>MELCO</th>
<th>NEC</th>
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<tbody>
<tr>
<td><strong>Total sales</strong></td>
<td>47.2</td>
<td>81.7</td>
<td>28.3</td>
<td>24.4</td>
<td>31.5</td>
<td>35.3</td>
<td>16.2</td>
<td>15.7</td>
<td>44.7</td>
<td>38.5</td>
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<tr>
<td><strong>Arms sales</strong></td>
<td>36.0</td>
<td>30.6</td>
<td>26.9</td>
<td>22.5</td>
<td>20.9</td>
<td>3.0</td>
<td>2.4</td>
<td>1.9</td>
<td>1.6</td>
<td>2.1</td>
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<tr>
<td><strong>Arms sales as a % of total sales</strong></td>
<td>76.3%</td>
<td>37.5%</td>
<td>95.0%</td>
<td>92.2%</td>
<td>66.0%</td>
<td>8.5%</td>
<td>11.5%</td>
<td>5.4%</td>
<td>3.5%</td>
<td>5.3%</td>
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</tbody>
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**THE SIPRI TOP 100 ARMS-PRODUCING AND MILITARY SERVICES COMPANIES, 2014**
History of Japanese Defense Industry

1950s  The Korean War
1954   Established JSDF
1967   The Three Principles on Arms Exports

1970   Guideline for indigenous development/production

1976   **Collateral policy guidelines of the Principles**
       “Arms” Exports to the other areas not included in the Three principles will be also restrained.

⇒ For Domestic Only

1980’s  **“Exemption”**
       1983  Transfer of Military Technology to the U.S.
       1999  Cooperative research on Ballistic Missiles

2014   **The Three Principles on Transfer of Defense Equipment and Technology**
       ※Not stating a measure for “exemption”, but clearly defining limitation where transfer of defense equipment may be permitted
The New Three Principles on Transfer of Defense Equipment and Technology

“3” of The new 3Ps are;

1 Clarification of cases where transfers are prohibited
2 Limitation to cases where transfers may be permitted, conducting strict examination while ensuring transparency
3 Limitation to cases where appropriate control

The new 3Ps set clear conditions and limitations to possible transfers which contribute to;

• Active promotion of contribution to peace and international cooperation
• Japan’s security through cooperation with its ally and partners
Cases Deliberated at the NSC and Published

Seeker gyro with the U.S.

Seeker technology with the U.K.

Seeker gyro with the U.K.

Seeker technology with the U.K.

Technical information, Co-Development & Production regarding submarines with Australia

“Aegis” class submarine

【reference : web site of Maritime Self-Defense Force】

Aegis display system with the U.S.

Display system for Aegis-equipped destroyer

Aegis display system
Technologies Becoming Borderless

1960s Internet (Defense Use Only) → Spin-off

Spread of the Internet for commercial

Present Technologies: Borderless
e.g. Robots:
Nursing Care and Welfare Use
Defense Use
Japanese defense industry will expand its business scope.

Future Vision of Japanese Defence Industry

Domestic (JSDF)  International

Military  international cooperation

Dual-use  technological breakthrough and innovation
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Envisaged Cooperation and Roles of the Japanese Defense Industry

◆ Partner for joint development and production

◆ Integrator of major platforms to partner countries

◆ Supplier to the international system for sharing parts / licensed production

◆ Provider of maintenance services
Opportunities for U.S. Companies

Co-development, Production Partner

1. Japan Gov → U.S.Gov
2. G-G arrangement
3. Japan Company → U.S.Company

Complementing for Japanese Platform Integrator

1. Japan Gov → 3rd Country Gov
2. Japan Gov → 3rd Country Company → Local partner
3. Japan Company → U.S.Company
4. Japan Company → U.S.Company
Opportunities for U.S. Companies

Co-Supplier to U.S. Gov
(Through U.S. Gov to 3rd Countries)

Foreign Gov

Japan Gov

dialogue

FMS

U.S. Gov

2

Japan Company

approve

3

4

U.S. Company

Maintenance service partner

Japan Gov

U.S. Gov

1

Japan Company

U.S. Company

2

SDF - U.S. common Equipment Co-operation at Asia-Pacific region
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METI’s Reinforced Efforts to Expand International Cooperation

◆ G-G Cooperation
  Foreign Comparative Testing (FCT) Dec. 2014

  Dual-Use Technology Workshop Feb. 2016

◆ B-B Cooperation
  U.S.-JP Technology Forum May (Every year)

  Industry Day (U.S. Company-Japanese Companies)
  *And more individual meetings

◆ Other countries (Australia, U.K., Germany, India・・)
METI’s reinforced efforts to strengthen our technological advantages

◆ Support for Activities of Japanese Private Companies
  Ceramic Matrix Composites (CMC)
    - Coating Technology
  Carbon Fiber Reinforced Plastics (CFRP)
    - Thermoplastic CFRP, Structure Health Monitoring, Automatic Laminating

◆ Establish an office for critical technology management
  Realization of a cross-sectional policy in relation to critical technologies to be applied for innovation in manufacturing industry (including controlling the technologies)
Challenges - Enabling Environment for International Cooperation -

• Our defense industry system has been optimized for domestic businesses.

→ Our defense industry structure should be built up by focusing on international business opportunities as well.

Ministry of Defense: Approaches based upon Major Equipment Products

Ministry of Economy, Trade and Industry: Approaches based upon Critical Technologies
Government and Industry Interests

**GOJ**
- Contributing to national security

**Defense Industry**
- New opportunities for global business
Thank you for your attention

Eiji Wakai