

Defense Production and Technological Bases, and the Current Status of Defense Equipment Acquisition

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Japan's Defense Production and Technological Bases

- ◆ As Japan has no national arsenal (state-owned munitions factory), the whole of the production base and most of the technological base is in the hands of companies that manufacture defense equipment and associated items (the defense industry).
- ◆ The market for defense equipment is limited to the small amount of demand from the MOD, so manufacturing economies of scale cannot be expected. Furthermore, specialized, advanced technologies and skills are required in the development and manufacture of defense equipment, and it takes a great deal of effort to cultivate and maintain those technologies and skills.



An employee of a defense equipment-related company conducting winding work for a resolver (angle sensor) that turns into parts of commander's periscopes and gunner's periscopes

Current Status of the Acquisition of Defense Equipment

- ◆ In terms of the technical strength of the defense industry, trends in the research and development budget have a considerable influence over the maintenance and improvement of skills among engineers in public and private sectors, because such skills are maintained and cultivated by working on research and development projects. Moreover, although factors such as the increasing performance of equipment have resulted in an increasing trend in research and development costs, in recent years, the ratio of defense-related expenditure accounted for by research and development has leveled off.

Initiatives for Increasing the Efficiency of Procurement and Improving its Fairness and Transparency

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- ◆ A PM/IPT system is under development in which a cross-organizational Integrated Project Team (IPT) headed by a Project Manager (PM) is established for major projects, so that the project can be managed, in terms of cost, performance and schedule, in a unified way throughout the lifecycle of the equipment product.

Three Principles on Transfer of Defense Equipment and Technology

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- ◆ In the "National Security Strategy" set out on December 17, 2013, from the perspective of Proactive Contribution to Peace based on the principle of international cooperation, a more proactive involvement in peace contribution and international cooperation is required through the use of defense equipment and other means, as well as participation in joint development and production of defense and other equipment.
- ◆ The Cabinet gave approval on April 1, 2014 for the Three Principles on Transfer of Defense Equipment and Technology. An appropriate degree of consideration was given to the basic philosophy of Japan as a peace-loving nation that conforms to the Charter of the United Nations and the course it has taken as a peace-loving nation, as well as the role already played by the Three Principles of Arms Export. Then, in learning from the mounting number of exceptional cases, it provides a comprehensive organization of these matters, clarifies the concrete standards, procedures and brakes relating to the transfer of defense equipment, to a greater extent than ever before, and is stated clearly and with transparency both internally and externally.

Research and Development

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- ◆ From the perspective of optimizing performance, scheduling, and cost throughout the lifecycle of equipment, multiple proposals will be compared and analyzed in terms of performance and cost from the concept and R&D stages. In addition, to avoid a rise in the unit price for mass production of equipment, the Technical Research and Development Institute and Equipment Procurement and Construction Office will coordinate on cost estimates from the development stage as a part of the lifecycle management.
- ◆ International joint development of defense equipment is the primary means within the international community for responding to soaring costs, yet achieving higher performance. Similarly, the MOD is engaged in joint research and development with the U.S. Department of Defense, as well as collaborating with other nations, such as the United Kingdom, in the fields of equipment and technology. Moreover, as the move towards dual use between defense and lifestyle technology, as well as borderless systems, gains momentum, technological information exchange and research collaboration between the Technical Research and Development Institute and research institutions such as independent administrative agencies and universities, is being proactively implemented within Japan, in order to ensure that superior lifestyle technology is incorporated and efficient research and development is conducted.



Mobile combat vehicle currently in development

Initiatives Aimed at Maintaining and Strengthening Defense Production and Technological Bases

Strategy for Defense Production and Technological Bases

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- ◆ In view of the present situation of rising competition from overseas companies caused primarily by the recent severe financial circumstances and reorganization of the global defense industry, the MOD decided on the "Strategy for Defense Production and Technological Bases" on June 19, 2014 to replace the former domestic production policy, in order to maintain and strengthen defense production and technological bases, which are important and vital elements that support our defense capabilities.
- ◆ The Strategy not only identifies the targets for and significance of maintaining and strengthening defense production and technological bases, but also presents basic concepts regarding methods of defense equipment acquisition, such as domestic development, international joint development and production, and import; measures for maintaining and strengthening defense production and technological bases, such as improvement of contract systems, measures relating to research and development, and defense equipment and technological cooperation; and the current situation and future direction of defense equipment sectors.

Adapting Defense Equipment for Civilian Use

- ◆ Japan is holding talks with India, which has been considering the acquisition of amphibian search and rescue aircraft, at the Joint Working Group (JWG) aimed at bilateral cooperation pertaining to US-2.



US-2 amphibian rescue aircraft



Human Foundation and Organization that Supports the Defense Force

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- ◆ In order to exert their defense capabilities with the maximum effectiveness, it is vitally important that the MOD and SDF enhance and strengthen the human foundation that underlies these capabilities. The various activities of the MOD and SDF are not possible without the understanding and cooperation of all people, as well as local governments and other parties. For this reason, mutual trust between local communities, the people, and the SDF need to be deepened even further.

Recruitment and Employment of Personnel in the MOD and the SDF

- ◆ In Japan, due to the declining birthrate and increasing university enrollments, the recruitable population for SDF personnel has been decreasing in size. Under such circumstances, personnel with superior abilities and a strong desire to enlist are recruited nationwide according to various categories.
- ◆ Furthermore, systems such as the SDF Reserve Personnel System are established. In such systems, people remain engaged in their own jobs as civilians in peacetime, and become SDF personnel and carry out their missions when muster orders for defense are issued.



Personnel who joined the MSDF in April 2014

Daily Education and Training

- ◆ The SDF makes efforts to educate its personnel and train its units to develop them into powerful personnel and forces, while paying careful attention to safety, in areas such as accident prevention.



Education and training of the GSDF, MSDF, and ASDF



Measures Aimed at Ensuring Effective Use of Human Resources

- ◆ The MOD and SDF promote a variety of measures, including measures for personnel system reform and the further employment of female SDF personnel, in order to appropriately assure the strength of the SDF units while taking into account their respective characteristics, and make effective use of human resources which form the foundations that enable Japan to demonstrate its defense capabilities, and thereby, adequately adapt to the diversification of missions and other changes.



Female GSDF, MSDF, and ASDF personnel

Interaction between the MOD/SDF, and Local Communities and Japanese Citizens

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Collaboration with Local Communities

- ◆ The MOD/SDF has been conducting various cooperation activities to support the lives of nationals. Such activities are further deepening the mutual trust between the local community and the people, and the SDF. Those activities are greatly contributing to maintaining and revitalizing local communities.



GSDF personnel disposing unexploded ordnance



MSDF disposing mines and other explosives

Initiatives to Mitigate the Local Impact of the Stationing of USFJ

- ◆ The MOD is working to promote the effective and appropriate use of returned lands in Okinawa Prefecture previously provided to the U.S. Forces in Japan for their use, based on the “Act on Special Measures Concerning Promotion of Effective and Appropriate Use of the Lands in Okinawa Prefecture Previously Provided for Use by the Stationed Forces.”
- ◆ With regard to the implementation of the Futenma Replacement Facility construction project, it was determined that maximum environmental conservation measures would be taken in order to avoid or reduce impacts on the environment as much as possible. Such measures include consideration and implementation of measures to improve environmental conditions to make them suitable for sea turtles to come onto land and lay eggs, the transplanting of corals and seaweeds, periodic aircraft-based checking for the habitat of dugongs, and use of rubble for land-fill material, which is produced regardless of the project. It was also determined that follow-up surveys and other measures would be enhanced.

Public Relations Activities, Information Disclosure, and Related Activities

- ◆ The MOD/SDF conducts activities to inform nationals of the current circumstances of the SDF. For example, in commemoration of the anniversary of the SDF, the SDF Marching Festival is held at Nippon Budokan arena every year. In addition, an SDF fleet review was conducted at the GSDF Asaka training site in FY2013.



FY2013 SDF fleet review



FY2013 SDF Marching Festival

Reform of the Ministry of Defense

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Direction of the MOD Reform

- ◆ The “Direction of the MOD Reform,” which was reported to the Defense Council and made public in August 2013, determined that full-fledged reform would be undertaken, taking due account of the matters specified in previous considerations, on the basis of the changes in the security environment surrounding Japan as well as in the policy environment.