

## **Section 5 Initiatives Aimed at Maintaining and Strengthening Defense Production and Technological Bases**

### **1 Strategy on Defense Production and Technological Bases**

Amid 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 Ministry of Defense intends to maintain and strengthen the defense production and technological bases that are important and vital elements for the support of our defense capabilities. Hence, at the Comprehensive Acquisition Reform Committee on June 19, 2014, the Ministry of Defense decided on “Strategy on Defense Production and Technological Bases – For strengthening the bases to support defense forces and ‘Proactive Contribution to Peace’ –.”

#### 1 Context of Formulation of Strategy on Defense Production and Technological Bases

(1) Context of formulation of strategy on defense production and technological bases and its place

As the war ended, the majority of Japan’s defense production and technological bases were lost. After the founding of the Self-Defense Forces and the subsequent period of reliance on America for supply and lending however, the Government and private sector collaborated, the basic guideline for production and development of defense equipment (so-called kokusanka-hoshin (guideline for indigenous development/production<sup>0</sup>)) of 1970<sup>1</sup>, in efforts to achieve the domestication of production and licensed domestic production of the main defense equipment, and strived to strengthen Japan’s defense production and technological bases.

However, for the roughly 25-year period from the 1990s when the Cold War ended, factors such as the rise in unit costs, maintenance and upgrading expenses that came with the severe financial circumstances enveloping the country, and the increasing performance and complexity of equipment, as well as intensifying competition from foreign companies, contributed to a dramatic change in the defense equipment environment.

With all this in mind, it was determined in the National Security Strategy adopted in December 2013, “to strive for the effective and efficient acquisition of defense equipment, in order that Japan’s defense capability can be developed, maintained and used stably over the

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<sup>1</sup> The basic guideline for production and development of defense equipment, the development guideline for defense industry, and the stimulation guideline for R&D (Directive July 16, 1970)

medium-to-long term by its limited resources, and to maintain and strengthen the defense production and technological bases of Japan, including raising its international competitive advantage.” Meanwhile, the new National Defense Program Guidelines stated that “to ensure the urgent maintenance and strengthening of Japan’s defense production and technological bases, a strategy will be established that indicates the future vision of Japan’s defense production and technological bases across the board.” As a result of this, the Ministry of Defense expressed a new direction for the future of maintaining and strengthening defense production and technological bases, in place of the “Guideline for Indigenous Development/Production” used previously, and adopted the new strategy in order to give new guidance to ensure the strengthening of the foundations that support Japan’s defense capability and proactive pacifism.

In order to concretize the strategy, it is necessary to take into account the fact that while the maintenance and strengthening of defense production and technological bases is a defense policy for ensuring the independence of Japan’s security status, it also combines an element of production policy, the effects of which will extend to the economic activity of private-sector companies, specifically defense production, and to work in collaboration with the relevant Government departments, rather than the Ministry of Defense alone. In addition, although in general the new strategy takes into account the next ten or so years, like the new National Defense Program Guidelines, it is based on the fact that change is expected to be very fast in areas such as the future security environment. It considers a change in the circumstances surrounding defense production and technological bases in the near future, and states that the necessary reports will be made at national security meetings, to be followed by reviews when needed.

## (2) Change of security environment surrounding defense production and technological bases

As the security environment surrounding Japan becomes ever more severe, it will be necessary to efficiently overhaul our defense capability, to make it more comprehensive and effective, and to strengthen the systems involved so that various contingencies can be prevented or dealt with. Hence, it is essential to the protection of Japan’s national interests and fulfilment of Japan’s appropriate responsibilities in the international community, to respond assertively from a position of proactive pacifism based on the principle of international cooperation.

Japan’s defense production and technological bases, which make up one of the domestic foundations required to achieve these goals, face a challenge in that they are becoming fragile, which thus exposes them to changes in the international environment in the form of reorganization of European and American enterprises, and progress in international joint

development. Meanwhile, based on the Three Principles on Transfer of Defense Equipment and Technology adopted in April 2014, new changes are coming about in the regulatory environment, namely the overseas transfer of defense equipment.

*See ▶ Part.IV ,Section1-1 (Defense Production and Technological Bases, and the Current Status of Defense Equipment Acquisition)*

## 2 Goals and Significance of Maintaining and Strengthening Defense Production and Technological Bases

By maintaining and strengthening the defense production and technological bases on the basis of the strategy, we intend to (1) guarantee the independence of Japan's security, (2) potentially contribute to increased deterrence and maintain and improve bargaining power, and (3) contribute to the sophistication of domestic industry in Japan through cutting-edge technology. Taking into account these three objectives and their significance, efforts will be made to balance the defense production and technological bases Japan has cultivated to date with efforts to optimize and make more efficient, the acquisition of defense equipment, as well as its maintenance.

## 3 Basic Stance for Promoting Measures

In order to achieve the maintenance and strengthening of defense production and technological bases, it is necessary to promote the required policies based on the fundamental viewpoints of (1) developing a long-term partnership between the private and public sector, (2) strengthening international competitive strength, and (3) combining these with the streamlining and optimizing of defense equipment acquisition.

## 4 Methods of Defense Procurement

The acquisition of defense equipment is carried out at present by employing and introducing multiple acquisition methods, such as domestic development, international joint development and production, licensed domestic production and commercially produced articles. The format of these methods however, directly influences our defense production and technological bases. Going forward, in order to effectively and efficiently maintain and strengthen defense production and technological bases, it will be necessary to select the appropriate method on a case-by-case basis, to suit the characteristics of the defense equipment, including international joint development and production which will be possible to address in a more flexible and maneuverable manner with the newly adopted Three Principles on Transfer of Defense Equipment and Technology.

## 5 Measures for Maintaining and Strengthening Defense Production and Technological Bases

In order to maintain and strengthen defense production and technological bases, acquisition methods that accord with the characteristics of each type of equipment will be combined efficiently, while policies are pursued to maintain and strengthen the foundations. In so doing however, firstly, across the entire technology sector in relation to defense equipment, the distinction between sectors in Japan which are comparatively superior and subordinate will be clarified specifically, and secondly, the functions and performance which should be provided by future defense equipment will be envisioned, taking trends in defense technology into consideration. This will allow us to ascertain the direction in which the required technology is evolving, based on which, it will be necessary to develop policies that emphasize variety and efficiency, considering the severe financial situation, in terms of for example, supporting research institutions such as companies and universities which have foundations suited to the task.

Based on such ideas, the following six efforts will be pursued. (1) Improvement of contract systems, etc., (2) policies relating to research and development, (3) defense equipment and technological cooperation, etc., (4) efforts relating to defense industry organizations, (5) strengthening of systems in the Ministry of Defense, and (6) promotion of policies in collaboration with other relevant ministries.

*See ▶ Fig.IV-1-5-1 (Policies for the Maintaining and Strengthening of Defense Equipment Production and Technological Bases)*

## 6 Course of Action for Each Area of Defense Equipment

Based on the ideas and policies previously stated regarding the maintenance and strengthening of defense production and technological bases in the main defense equipment sectors (ground equipment, supplies, etc., ships, aircraft, explosives, guided weapons, communications electronics and command control systems, unmanned equipment, cyber and space systems), as well as the matters emphasized for system improvement in the Self-Defense Forces as indicated in the new National Defense Program Guidelines, the future direction for the maintenance and strengthening of defense production and technological bases in each respective field, and the acquisition of defense equipment in each, will be presented and translated into a corresponding plan for the Ministry of Defense, and efforts made to increase predictability on the company side.

*See ▶ Fig.IV-1-5-2 (Direction in the Various Defense Equipment Sectors)*

## **2 Adapting Defense Equipment for Civilian Use**

The Ministry of Defense is working in partnership with other ministries in considering not only maintaining and strengthening its defense production and technological foundations, but also civilian use of aircraft developed by the Ministry of Defense, which is expected to bring about a reduction in the procurement prices of SDF aircraft and other equipment.

In August 2010 a set of guidelines was compiled, stipulating the method in which companies will pay usage fees for aircraft to the Japanese government, and the disclosure and use of technical data possessed by the Ministry of Defense, for the implementation of a concrete system for converting aircraft to civilian use.

Later, in 2011, the Ministry of Defense developed the application procedure for private companies interested in civilian use. At present, technical data related to the civilian use of the US-2 amphibian rescue aircraft and the C-2 transport aircraft are being disclosed in response to requests from the implementing companies. Also, given that India has been considering the procurement of amphibian search and rescue aircraft, the establishment of the Joint Working Group (JWG) to facilitate bilateral cooperation for the US-2 aircraft was decided during the Japan-India Summit Meeting held in May 2013. In December 2013, the first JWG meeting was held in Delhi, and in April 2014, the second JWG meeting was held in Tokyo, where the Japanese representatives provided information on the US-2, and both Japan and India sides agreed on continuous discussions regarding the mutual concerns on cooperation relating to the US-2 aircraft. In addition, on the day before the second JWG meeting, the JWG Indian delegation experienced a US-2 Flight and made a visit to the factory.

The possibility of civilian use of equipment other than aircraft will be considered based on the needs of foreign countries and the intentions of the defense industry.

### **3 Participation of Japanese Industry in the Production of the F-35A**

In December 2011, Japan selected the F-35A as the next-generation fighter aircraft to succeed the F-4 fighter aircraft. At the same time, the government decided to procure 42 F-35A aircraft from FY2012 onwards and to have Japanese companies participate in its production, aside from several finished aircraft which shall be imported. In light of this decision, the Japanese government has been working to enable the involvement of Japanese companies in the manufacturing process in preparation for the F-35A acquisition from FY2013 onwards. Following discussions with related parties such as the U.S. government, the participation of Japanese companies in the Final Assembly and Check Out (FACO) for airframe and the

manufacture of certain engine and radar parts was decided in FY2013. In FY2014, the companies plan to start to further participate in the manufacturing process, in the engine FACO and the production of parts within the infrared detection device, the Electro-Optical Distributed Aperture System (EODAS)<sup>2</sup>.

It is important for Japanese companies to participate in the manufacturing process and to come into contact with cutting edge fighter aircraft technology and knowledge in order to ensure safety and high operational availability, resulting in the safe and efficient management of ASDF F-35As.

Japan's industrial participation in manufacturing from FY2015 onwards shall be examined, considering various factors such as the significance of Japan's industrial participation, coordination with other parties such as the U.S. government, and also Japan's financial situation.

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<sup>2</sup> Electro-Optical Distributed Aperture System (EODAS), comprising six cutting edge electro-optical sensors per aircraft for 360 degree spherical situational awareness, missile detection and tracking.