

Section 3

Defense Equipment and Technology Cooperation

Based on the Three Principles on Transfer of Defense Equipment and Technology, Japan promotes cooperation in defense equipment and technology with other countries in order to contribute to promoting the maintenance and enhancement of defense production and technological bases, as well as contributing to the promotion of peace

and international cooperation. Japan will continue to realize effective defense equipment and technological cooperation through the strengthening of intelligence gathering such as the needs of its counterparts, cooperation including assistance for maintenance and repair of equipment, and strengthening of cooperative posture between the public and private sectors.

1 Three Principles on Transfer of Defense Equipment and Technology

1 Purpose of Establishment of the Three Principles on Transfer of Defense Equipment and Technology

Japan has dealt with arms exports in a careful manner, in accordance with the Three Principles of Arms Exports and their related policy guidelines. On the other hand, in individual cases, such as the participation of domestic companies in the joint development of Ballistic Missile Defense (BMD) by Japan and the U.S., it has taken separate measures in which arms exports are dealt with outside the Three Principles.

Amidst this situation, in December 2011, the Statement by the Chief Cabinet Secretary on Guidelines for Overseas Transfer of Defense Equipment, etc. put in place exemptions from the Three Principles of Arms Exports based on the premise of strict control,¹ with regard to (1) cases related to peace contribution and international cooperation, and (2) cases regarding international joint development and production of defense equipment, etc. that contributes to Japan's security.

In April 2014, based on the National Security Strategy, the Government formulated the Three Principles on Transfer of Defense Equipment and Technology as new principles replacing the Three Principles on Arms Exports etc.² and its implementation guidelines. These clarified the concrete standards, procedures and limitation.

See>> Reference 68 (Three Principles on Transfer of Defense Equipment and Technology)

2 Main Contents of the New Three Principles

(1) Clarification of Cases Where Transfers are prohibited (the First Principle)

The cases where transfers are prohibited are clarified as follows: (1) in the case of violating the obligations based on agreements signed by Japan and other international agreements; (2) in the case of violating the obligations based on the Resolution of the United Nations Security Council; or (3) in the case of transferring to the countries in conflicts.

See>> Fig. III-3-3-1 (The First Principle "The Cases Where Transfers Are Prohibited")

(2) Limitation to Cases Where Transfers May Be Permitted As Well As Strict Examination and Information Disclosure (the Second Principle)

The cases where transfers may be permitted are limited to (1) cases that contribute to the active promotion of peace contribution and international cooperation, or (2) cases that contribute to the security of Japan. The Government will conduct strict examination on the appropriateness of the destination and end user whilst ensuring transparency, and the extent the overseas transfer of such equipment and technology will raise concern for Japan's security. In addition, it has been decided that important cases would be deliberated at the National Security Council and along with this, information concerning the cases that were deliberated would be disclosed.

Fig. III-3-3-1 The First Principle "The Cases Where Transfers Are Prohibited"

Situation	Specific examples
(1) Violation of obligations under treaties concluded and other international arrangements	Chemical Weapons Convention, Convention on Cluster Munitions, Anti-Personnel Mine Ban Convention, Arms Trade Treaty, etc.
(2) Violation of obligations under United Nations Security Council Resolutions	Security Council Resolution 1718 (nuclear issue of North Korea), etc.
(3) Transfer to a nation which is party to a conflict	Countries which are the target of measures taken by the United Nations Security Council to maintain or restore international peace and security in the event of an armed attack

1 The strict control refers to the duty imposed on recipient countries to gain prior consent from Japan with respect to extra-purpose use and third party transfer, within international arrangements concluded between the Governments of Japan and recipient countries.

2 The term "defense equipment" is deemed appropriate for the title of "Three Principles for the Transfer of Defense Equipment and Technology," since possible articles of overseas transfers help peace contribution and international cooperation as was seen in the example of the provision of bulldozers and other items belonging to the SDF to disaster-stricken countries. Similarly, due to the fact that there is provision of technology in addition to goods, the term "transfer" was adopted rather than "export."

Fig. III-3-3-2 The Second Principle "Limitation to cases where transfers may be permitted"

Situation	Specific examples
(1) Contribution to the proactive advancement of peace contribution and international cooperation	Overseas transfers that contribute to active promotion of peace contribution and international cooperation, only if the transfers have positive meaning from the viewpoint of peace contribution and international cooperation and when: ○ the recipient is a foreign government, or ○ the recipient is the United Nations (UN) System or organizations conducting the activities based on a UN resolution
(2) Contribution to the security of Japan	Overseas transfers that contribute to Japan's security, only if the transfers have positive meaning from the viewpoint of Japan's security, and that: ○ are related to international joint development and production with countries cooperating with Japan in security area including the U.S., ○ contribute to enhancing security and defense cooperation with countries cooperating with Japan in security area including the U.S., and of the following: • Overseas transfer of defense equipment and technology included in the provision of supplies and services implemented by the SDF in accordance with laws • provision of military technology as a part of mutual exchange of technology with the U.S., • Provision of parts or services related to a licensed product of the U.S. or provision of repair services etc. to the U.S. armed forces, or • defense equipment and technology related to cooperation concerning rescue, transportation, vigilance, surveillance or minesweeping with countries cooperating with Japan in security area, or ○ are necessary for supporting activities of the governmental agencies including the Self-Defense Forces (hereinafter referred to as "the SDF etc."), which include the activities of foreign governments or private entities etc. related to the activities of the SDF etc., or for ensuring the safety of Japanese nationals, and that are: • temporary export of equipment, return of purchased equipment or provision of technical information related to the activities of the SDF etc. including replacements of items which need repairing with non-defective items, • export of equipment for the protection or self-protection of public officials, or • export of equipment for the self-protection of Japanese nationals operating in danger areas

See>> Fig. III-3-3-2 (The Second Principle "Limitation to cases where transfers may be permitted")

(3) Ensuring Appropriate Control regarding Extra-Purpose Use or Transfer to Third Parties (the Third Principle)

Overseas transfer of defense equipment and technology will be permitted only in cases where appropriate control is ensured, and the Government will in principle oblige the Government of the recipient country to gain its prior

consent regarding extra-purpose use and transfer to third parties. However, in cases where it is judged appropriate for the active promotion of peace contribution and international cooperation, cases involving participation in the international systems for sharing parts, and cases where parts are delivered to a licensor, appropriate control may be ensured with the confirmation of the control system at the destination.

2 Deepening Relationships with the United States regarding Defense Equipment and Technology Cooperation

1 Joint Research and Development, etc.

Since 1992, Japan has implemented 20 joint research projects and 1 joint development project with the United States. At present, 3 joint research projects (joint research on hybrid electric propulsion, joint research on high-speed multi-hull vessel optimization, and joint research on the comparison of exposure to jet fuel and noise in unit operation) and 1 development project (Japan-U.S. cooperative development of an Advanced Ballistic Missile Interceptor) are underway. In addition, with regard to the transfer of software and parts related to the Aegis System from Japan to the United States, Japan affirmed in July 2015 that this overseas transfer falls under the case, which may be permitted, based on deliberations at the National Security Council.

See>> Part III, Chapter 1, Section 2-3-2 (Missile Defense of the United States and Japan-U.S. BMD Technical Cooperation)

See>> Reference 33 (Japan-U.S. Joint Research and Development Projects)

2 Production, Sustainment and Maintenance of Common Equipment between Japan and the United States

(1) Participation of Japanese Industry in the Production of the F-35A and the Establishment of Regional Maintenance, Repair, Overhaul and Upgrade (MRO&U) Capability

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 aircraft from FY2012 onwards and to have Japanese industries participate in its production, aside from several complete aircraft, which shall be imported. In light of this decision, the Japanese government has been working to enable the involvement of Japanese industries in the manufacturing process in preparation for the F-35A acquisition from FY2013 onwards. The Japanese government decided on the range of production participation by Japanese industries including the Final Assembly and Check Out (FACO) for airframe, the manufacture of some engine parts (17 items) and



F-35A aircraft, the production of which involves the participation of Japanese industries (the aircraft shown in this photo was manufactured in the United States)

radar parts (7 items) in FY2013, FACO for engines and the manufacture of some Electro-Optical Distributed Aperture System (EODAS)³ parts (2 items) in FY2014, and the manufacture of some engine parts (2 items) and EODAS part (1 item) in FY2015.

In terms of the skills and facilities required for FACO, it will be important for Japanese companies to have the following abilities, in order to provide effective operational support for the F-35A:

- The ability to offer a swift response within Japan in the event that an airframe suffers damage and requires work that cannot be carried out by the SDF unit itself, including the repair or replacement of major structural components, such as main wings and fuselage, without transporting the airframe overseas; and
- The ability to carry out refurbishment work domestically, in the event that performance improvements to the F-35A are sought within Japan in future.

In addition, participation of Japanese companies in the implementation of FACO and parts production will have significance in that they will be able to come in contact with the system integration technology of stealth fighter as well as the cutting edge fighter technology and know-how.

Due to global operation of F-35, the U.S. government plans to establish maintenance depot mainly for airframe and engine in the North America, Europe, and the Asia-Pacific regions. In December 2014, with regard to regional Maintenance, Repair, Overhaul and Upgrade (MRO&U) Capability in the Asia-Pacific region for F-35, the U.S. government announced the following decisions: (1) regional MRO&U Capability for airframe will be provided to Japan and Australia with both capabilities required not later than early 2018;⁴ (2) With regard to the regional MRO&U Capability for engine, initial capability will be provided by Australia by early 2018, with Japan

providing additional capability at least 3-5 years later.⁵ Utilizing the FACO facility for airframe and engine, and contributing to maintenance in the Asia-Pacific region are significant from the perspectives of securing the operational support system for F-35A in Japan, maintaining the foundation of the Japanese defense industry, strengthening the Japan-U.S. Alliance, and deepening equipment cooperation in the Asia-Pacific region.

(2) Initiatives towards the Establishment of a Common Maintenance Base of the Japan-U.S. Osprey

As the Periodic Maintenance Inspection (PMI) of the U.S. Marine Corps Ospreys (24 aircraft) deployed at Futenma is scheduled to commence roughly in 2017, the U.S. Forces carried out public tender to select a maintenance company and made a decision to select Fuji Heavy Industries Ltd. as the maintenance company for this purpose in October 2015.

The MOD intends to establish common maintenance base for both Japan's and the United States' Osprey (V-22) aircraft by allowing the maintenance company to use the hangars at GSDF Camp Kisarazu for aircraft maintenance of the U.S. Marine Corps Ospreys and also to implement the future aircraft maintenance of the GSDF Ospreys at the same camp from the following perspectives: (1) Smooth introduction of the GSDF Osprey;⁶ (2) Smooth and effective operation of the Japan-U.S. security arrangement; and (3) Enhanced efficiency in maintenance. The establishment of common maintenance base at GSDF Camp Kisarazu would be extremely significant in that it will lead to the realization of the reduction of Okinawa's burden as well as the "Strengthening the basis to repair and maintain common equipment" stated in the new guideline.



Engineers from a Japanese maintenance company checking the structure of the U.S. Marine Corps Ospreys (Photo courtesy of Fuji Heavy Industries Ltd.)

³ Electro-Optical Distributed Aperture System (EODAS), comprising six cutting edge infrared sensors per aircraft for 360 degree spherical situational awareness, missile detection and tracking.

⁴ The regional MRO&U for airframe in Japan is scheduled to be located at Mitsubishi Heavy Industries Ltd. (Komaki-minami factory in Aichi Prefecture).

⁵ The regional MRO&U for engine in Japan is scheduled to be located at IHI Corporation (Mizuho factory in Tokyo).

⁶ GSDF will introduce 17 tilt-rotor aircraft (Osprey (V-22)) that can complement and strengthen the capabilities of transport helicopters (CH-47J) in terms of cruising speed and range. In June 2015, a contract regarding 5 aircraft out of the 17 was signed with the United States Department of the Navy, and these 5 aircraft will be delivered by the end of FY2018.

3 Building New Defense Equipment and Technology Cooperation

1 Defense Equipment and Technology Cooperation with Major European Countries, etc.

Defense equipment and technology cooperation with major European countries, which have competitive defense industries, will contribute to the strengthening of security and defense cooperation with these countries as well as the maintenance and strengthening of the defense production and technological base in Japan. Therefore, Japan seeks to establish and deepen relationships with these countries.

(1) United Kingdom

In July 2013, the governments of Japan and the United Kingdom concluded an intergovernmental framework agreement regarding joint development and other initiatives related to defense equipment, etc.⁷ In the same month, the two countries also started joint research on chemical and biological protection technology, marking the first time that Japan had engaged in such research with a country other than the United States. Also, in July 2014, information on seeker technology for joint research with the United Kingdom was determined by the National Security Council as a case where overseas transfer may be permitted. Responding to the said decision, in November of the same year, a letter of arrangement was formulated in relation to Japan-U.K. co-operative research project on the feasibility of a joint new air-to-air missile and the joint research was commenced. Furthermore, in January 2016, it was confirmed that the joint research on personnel vulnerability evaluation (PVE) in relation to the research and development of personal equipment would be launched.

See>> Part III, Chapter 2, Section 1-4-8 ((1) The United Kingdom)

(2) France

Japan and France established a committee on cooperation in the field of defense equipment and a committee on export control in January 2014, and signed the Agreement concerning the transfer of Defense Equipment and Technology⁸ in March 2015.

See>> Part III, Chapter 2, Section 1-4-8 ((2) France)

2 Defense Equipment and Technology Cooperation, etc., with Partner Countries in the Asia-Pacific Region

As partner countries in the Asia-Pacific region have expressed their interest and expectation regarding defense equipment and technology cooperation with Japan, the MOD proactively seeks to build relationships with these countries.

(1) Australia

With Australia, the Agreement between the Government of Japan and the Government of Australia concerning the Transfer of Defence Equipment and Technology⁹ was signed in July 2014. In addition, Japan commenced the joint research in the field of marine hydrodynamics in December 2015.

Meanwhile, at the Japan-Australia Defence Ministerial Meeting held in October 2014, it was agreed to seek multifaceted defense equipment and technology cooperation, including the following: (1) exploration of potential cooperation opportunities in the F-35 program; (2) acquisition reform dialogue with the Defence Material Organisation of Australia; (3) at the request of the Australian side, exploration of the possibility of Japanese cooperation in the Australian Future Submarine Program; (4) defense technology exchanges with the Defence Science and Technology Organisation of Australia (marine hydrodynamics field and exchanges among engineers and scientists); and (5) talks between defense industries in both countries.

Furthermore, during the Japan-Australia Defense Ministerial telephone conference in May 2015, the Government of Australia explained its intention to examine the possibility of jointly designing and building Australian future submarines with Japan, and therefore, requested that Japan participate in the process of selecting Australian future submarines. In May 2015, responding to this request, with the participation of private companies, consultations with the Government of Australia were commenced. At the same time, the transfer of technical information for feasibility research of the joint development and production of submarines was deliberated at the National Security Council, and it was affirmed that this falls under the case in which the overseas transfer could be permitted. In November of the same year, Japan submitted the proposal for the

7 Official name: Agreement Between the Government of Japan and the Government of the United Kingdom of Great Britain and Northern Ireland Concerning the Transfer of Arms and Military Technologies Necessary to Implement Joint Research, Development and Production of Defence Equipment and Other Related Items

8 Official name: Agreement between the Government of Japan and the Government of France concerning the Transfer of Defense Equipment and Technology

9 Official name: Agreement between the Government of Japan and the Government of Australia concerning the Transfer of Defense Equipment and Technology

Future Submarine Program. Note that, in tandem with the request to Japan, the Government of Australia was also making a request to German and French companies to participate in the selection procedure.

Afterwards, in April 2016, the Government of Australia announced that they selected a French company as their international partner for the Future Submarine Program. The Government of Australia explained this decision by stating that this company had demonstrated the most suitable capabilities to fulfill the overall requests on capabilities which were specific to Australia.

See>> Part III, Chapter 2, Section 1-4-1 (Japan-Australia Defense Cooperation and Exchanges)

(2) India

With India, which has been considering the acquisition of amphibious 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. So far, three JWG meetings have been held in total in which the Japanese representatives provided information on the performance, overview of operations, production and assembly, and maintenance, etc. of the US-2, including the offer of an opportunity to experience a US-2 flight and to visit the factory to the Indian delegation of the JWG. Furthermore, talks between the two countries are taking place to prepare the formulation of a roadmap for industry-to-industry cooperation, including technology transfer and production within India. Also, in response to the Japan-India Summit Meeting in September 2014, the first Japan-India Joint Working Group on Defence Equipment and Cooperation was held in March 2015 in order to promote cooperation in defense equipment and technology. At the Summit Meeting in December 2015, the Agreement between the Government of Japan and the Government of India concerning the Transfer of Defence Equipment and Technology¹⁰ was signed. It was expressed to explore potential future defense equipment and technology cooperation such as projects including US-2.

See>> Part III, Chapter 2, Section 1-4-3 (Japan-India Defense Cooperation and Exchanges)

(3) ASEAN Countries

Between Japan and ASEAN, opinion exchanges are taking place regarding defense equipment and technology cooperation in non-traditional security sectors, such as humanitarian assistance, disaster relief and maritime security through the Japan-ASEAN Defense Vice-Ministerial Meetings and other occasions. Participating countries have expressed their expectation for Japan's cooperation in effectively dealing with these issues. In September 2014, as part of the Seminar on Capacity Building in Maritime Security and Disaster Relief (hosted by the Ministry of Foreign Affairs), an event to introduce defense equipment, etc., by Japanese defense-related companies was held at the MOD. In February 2016, the Agreement concerning the Transfer of Defense Equipment and Technology was signed with the Philippines, while during the Japan-Philippines Defense Ministerial telephone conference in May of the same year it was confirmed that the two countries would promote defense equipment and technological cooperation, and would develop the cooperation regarding the transfer of MSDF's TC-90 training aircraft TC-90 to the Philippine Navy to be more concrete.

See>> Part III, Chapter 2, Section 1-4-6 (Defense Cooperation and Exchanges with ASEAN Countries); Part III, Chapter 2, Section 1-2-3 ((3) Japan-ASEAN Defense Vice-Ministerial Forum)



TC-90 under consultation regarding its transfer to the Philippines

¹⁰ Official name: Agreement between the Government of Japan and the Government of India concerning the Transfer of Defense Equipment and Technology

4 Adapting Defense Equipment for Civilian Use

In August 2010, the MOD compiled a set of guidelines for the development of a concrete system for converting aircraft to civilian use, while in 2011, it also developed the application procedure for private companies interested in civilian use. So far, technical data related to the civilian use of the US-2 amphibian rescue aircraft and the F7 engine that are mounted on P-1 fixed wing patrol aircraft have been disclosed and released in response to requests from the implementing companies. The possibility of civilian use of equipment other than aircraft will be considered based on the intentions of the defense industry.



P-1 patrol aircraft with which there is an ongoing effort to transfer its engine to private use

5 Technology Control

In promoting defense equipment and technology cooperation internationally, it is necessary to evaluate the sensitivity and strategic value of defense technology and dual-use technology, and protect those technologies that should be protected as strengths of Japan. At the same

time, it is necessary to strengthen the technology control functions by avoiding the risk of their conversion into weapons from the perspective of Japan's security. As such, cooperation with the Ministry of Economy, Trade and Industry will be promoted.

6 Other

In December 2014, the "Committee on Challenges surrounding the Transfer of Defense Equipment and Technology," consisting of external experts, was launched to review the system for smoothly and appropriately

advancing cooperation in defense equipment and technology for the security of Japan, and in September 2015 reports were compiled and submitted from this Committee to the MOD.