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Japan's Ad Hoc Arms Export Control Policy

In 1967 the Japanese government under Prime Minister Eisaku Sato adopted the Three Principles on Arms Exports, in response to the opposition Japan Socialist Party's objection to Japan's logistical support for U.S. forces in the Vietnam War. These principles prohibit Japan from exporting weapons to Communist-bloc countries, those countries subject to embargoes on arms exports under the U.N. Security Council's resolutions, and those countries engaged or likely to be engaged in international conflicts. They were reinforced in 1976 by the government of Prime Minister Takeo Miki, which imposed a total ban on the export of arms and arms-related equipment to all regions in the world, in line with the pacifist spirit of the Japanese Constitution.

Then in 1983, when Yasuhiro Nakasone became prime minister, the principles were relaxed to exempt transferring arms-related technologies, though not military end items, to the United States. With this exception,

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however, Japan's policy to ban arms exports has since remained unchanged. In accordance with the 1983 modification, Japan and the United States have carried out, since 1999, a joint technological research project, the Navy Theater Wide Defense (NTWD) program, to improve their missile defense system.¹ If this research should lead to joint development and production, Japan would find itself exporting missile defense-related arms to the United States. Thus, in December 2005, when the two countries began their joint development and production of the future missile defense system, the Japanese government determined that the Three Principles on Arms Exports would not be applied and that the export of other future defense projects to the United States would be examined on a case-by-case basis. The government also confirmed, however, that Japan would continue to enforce its arms export control policy, in light of the country's basic philosophy as a peace-loving nation, on which the Three Principles on Arms Exports and their related policy guidelines are based.²

The fundamental problem with Japan's arms export control policy lies in its ad hoc nature, that is, its having to make exceptions to its Three

¹ After the approval of the Japanese Security Council in October 1998, the Memorandum of Understanding on the joint technical research on the NTWD between the two was concluded in November 1999.

² Shusho kantei (Prime Minister of Japan and his cabinet), "Heisei 17-nendo ni kakaru boei keikaku no taiko ni tsuite" [On the National Defense Program Guidelines, FY2005-], *Naikaku kanbo chokan danwa* [Statements and announcements by the chief cabinet secretary] 10 December 2004, available online at <http://www.kantei.go.jp/jp/tyokan/koizumi/2004/1210danwa.html>; and http://www.kantei.go.jp/foreign/tyokan/2004/1210statement_e.html. Shusho kantei, "Dando misairu boei noryoku kojogata geigeki misairu ni kansuru Nichibei kyodo kaihatsu" [U.S.-Japan joint development on missile defense] *Naikaku kanbo chokan danwa* [Statements and announcements by the chief cabinet secretary], 24 December 2005, available online at <http://www.kantei.go.jp/jp/tyokan/koizumi/2005/1224danwa.html>.

Principles on Arms Exports and announcing its intention to examine other arms exports on a case-by-case basis. Although the country's international relations, technological environment, and industrial structures all have changed since the Three Principles were established, Japan still does not have a clear-cut policy for arms exports that can meet today's needs. The restriction was effective during the cold war, as it allowed Japan to refuse to help the Communist-bloc countries strengthen their military capabilities, but now that the cold war is over, the policy is no longer feasible.

Revising the Three Principles on Arms Exports

Keeping in mind the current trends in defense technology and acquisition, Japan should revise its arms export control policy to reflect its national security and defense industrial and technological base. At present, the Three Principles on Arms Exports allow Japan's defense businesses to operate only within its small domestic market. How, then, will the current policy banning the export of arms affect Japan's defense industry? How can the industry be productive in the future? How can Japan use its industrial capability to fulfill its strategy of national security and technological development?

Growing International Cooperation in Defense Systems

Since the end of the cold war, the United States and the NATO countries have begun emphasizing international cooperation in major defense projects. Because the defense budgets of the United States and its allies have been cut, the U.S. Department of Defense now places a high premium on interoperability. According to the department, international cooperative

efforts offer an opportunity to enhance interoperability, stretch shrinking budgets, and preserve local defense industrial capabilities. Such cooperation ranges from simple subcontracting relationships to licensing and royalty arrangements, joint ventures, and bilateral and multilateral cooperative programs.³

According to British and French officials, Europe's hope that the issue of missile defense might go away if it were ignored long enough seems to have evaporated after the exchanges at the Munich Conference on Security Policy in February 2001. At that time, the German chancellor, Gerhard Schroeder, responded positively to the project, stating, "Europeans place great value on frequent exchanges with the American administration on plans for missile defense."⁴ Now, therefore, cooperation on a missile defense project by the United States and its allies is building and includes the U.S.-Italian-German Medium Extended Air Defense System (MEADS) Program, and the U.S.-Israeli Arrow Program.⁵ Because developing highly advanced weapons systems, such as the missile defense project, requires much time and cost, international cooperation may be the best solution when budgets are tight.

Although the Japanese government decided that the Three Principles

³ U.S. Department of Defense, *Annual Report to the President and Congress 1995*, available online at <http://www.dod.mil/execsec/adr95/index.html>.

⁴ Joseph Fitchett, "U.S. Intends to Put Anti-Missile Shield around the World," *International Herald Tribune*, 5 February 2001.

⁵ The MEADS program is a trilateral project to develop a missile defense system that is transportable, tactically mobile, and capable of intercepting incoming ballistic missiles in the terminal phase of their flight. The Arrow Program is a bilateral project to develop an arrow weapons system that can be used with the U.S. Patriot and Navy Area Theater Missile Defense systems.

on Arms Exports would not be applied to the missile defense project with the United States, it did reconfirm that Japan's arms export ban policy would remain in place. As a result, despite Japan's strategic importance to the Asia Pacific region, the United States is free to seek suppliers in other countries that have few legal constraints on the sales of arms. Therefore, unless Japan revises its attitude toward multilateral defense and technological cooperation, the United States may strengthen its ties with other countries, such as the members of NATO. If this were to happen, it might well damage the relationship between Japan and the United States, which would not be desirable for Japan's national interests.

In addition, if Japan continues to adhere to the Three Principles on Arms Exports and does not participate in international defense projects, it will have no influence on setting international technological trends and standards. Moreover, Japanese users have had no tactical experience (and thus have no market data), and Japanese-made weapons have not been tested in combat, whereas the United States has accumulated decades of information and has had many opportunities to test its defense systems. The Japanese government therefore was right in deciding to develop and produce a missile defense system with the United States. Its making it an exception to the Three Principles on Arms Exports means that Japan can maintain its technological ties with the United States, the world's leader in military technology.

Japanese companies still, however, are not allowed either to freely export any military end items or to participate in multilateral defense projects with countries other than the United States. In addition, other

defense projects must be decided on a case-by-case basis. Not specifying clear criteria for the country's arms export control policy greatly complicates research and development, whether in the public or the private sector, when mapping out an R&D strategy based on international trends. In this respect, the Three Principles should be modified so that a new arms export control policy will enable Japan to join multilateral defense R&D and projects and to stay abreast of advancements in military technology.

The Problem with Japan's Defense Industry

In order to participate in multilateral defense projects, Japan's defense industry must be competitive. Up until now, Japan's defense industry has operated in a noncompetitive market environment, with a few companies dealing with the Japanese government as the sole buyer.⁶

In Japan, the basis for defense acquisitions is a quantitative target set in a five-year defense buildup plan and achieved within a restricted budget. As a result, Japan's defense plans seldom include new weapons systems; instead, replacing obsolete systems with new ones is given higher priority. Part of the reason for this is that Japan's defense buildup is planned in accordance with the "concept of basic and standard defense capability" (*kibanteki boeiryouku koso*), meaning that Japan will not become a source of instability in the surrounding region by creating a power vacuum.

⁶ The data on the market share of Japanese defense contractors from 1975 to 2005 show that in every fiscal year, the top twenty companies have controlled about 70 percent of defense contracts and the top ten companies alone have captured about 60 percent. The concentration in the Japanese defense market is relatively high compared with the United States: in FY2005, 35.3 percent of defense contract awards were captured by the top ten firms and 42.6 percent by the top twenty.

Because the defense budget is not based on a capability directly linked to an assessment of military threats to Japan, drawing up a budget and estimating the future demand for defense equipment are easy. This method enables defense production programs to be confined to a small number of companies, which in turn creates a noncompetitive market environment in which the informal “defense family” has long had an advantageous position.⁷

Coupled with this distinctive defense acquisition process, Japan’s arms export ban policy has brought the industry to a standstill. Those companies in the market, blessed with the small but stable demand at home, continue to receive defense contract awards from the Ministry of Defense. In such an environment, Japanese defense companies with vested rights do not have to compete with one another or with foreign suppliers in the overseas market. In addition, the Japanese defense market does not attract newcomers because of the country’s static defense industrial structure and the legal restraints on arms exports. If the Japanese defense industry remains in such a noncompetitive market environment, it may end up weakening its own industrial and technological capabilities. But if Japanese-made defense products are allowed to be exported, newcomers with potential industrial capabilities might enter the defense market, and the informal “defense family” companies would be forced to change their traditional business practices. Unless they are competitive, Japanese companies will have

⁷ For further analysis of the characteristics of the Japanese defense industry, see Kubota Yukari, “Nihon no boei sangyo no tokushitsu: Sangyo kozo to anzenhosho seisaku ga ataeta eikyo no bunseki” [Characteristics of the Japanese defense industry: An analysis of its structure and the influence of national security policy], *Kokusai seiji* [International Relations] 131 (2002).

difficulty participating in international defense projects.

New Trends in Defense Acquisition

The U.S. Department of Defense is now trying to apply commercial practices and standards to its major defense projects, including missile defense, which has implications for the Japanese defense industry that cannot be ignored.

In 1994, the then U.S. secretary of defense, William Perry, began trying to streamline U.S. defense acquisitions, particularly in the recognition that future weapons systems would largely depend on rapidly changing commercial technology. The U.S. Department of Defense thus began shifting from its reliance on unique military specifications to more commercial-oriented performance standards, and it also adopted best-business practices to align itself more closely with the private sector. One of the main objectives of this defense acquisition reform was reducing both the costs and the time needed to develop a complex weapon system.

As a result, the United States now places greater emphasis on Evolutionary Acquisition as the preferred strategy to rapidly acquire an advanced war-fighting capability. Instead of attempting to develop a system that will, on its first deployment, fully satisfy a detailed military requirement, the Evolutionary Acquisition strategy is to develop, test, deploy, and modify systems in a cyclical process that, in principle, will permit weapons developers to progress incrementally toward a final system configuration that will eventually meet their required objectives.⁸ The

⁸ Steven A. Hildreth and Amy F. Woolf, *Missile Defense: The Current Debate* (CRS Report for Congress), 25 February 2002, available online at <http://digital.library.unt.edu/govdocs/crs/permalink/meta-crs-6841:1>. For more details

concept of Evolutionary Acquisition is a common business practice in the private sector, in which a new product is usually developed and manufactured with the latest or best possible technology and then, after being put on the market, is modified to improve its performance. In this way, the product can “evolve” from the original model into an up-to-date and more sophisticated model.

The Evolutionary Acquisition strategy is best suited to high-technology and software-intensive programs in which requirements beyond a core capability may be generally, but not specifically, defined. Accordingly, the missile defense system has no fixed or final architecture; rather, it concentrates on improving the effectiveness of defensive capabilities over time as resources allow. This acquisition strategy is suitable for the complex, multilayered missile defense project. The project was initially structured to deliver capability in two-year “blocks,” each providing capability upgrades and new fielding opportunities. The first period, Block 2004, represented calendar years 2004/2005; Block 2006, 2006/2007; and Block 2008, 2008/2009 deliveries. Over the past few years, the United States has fielded an initial missile defense system that it is improving with additional capabilities in the form of deployed sensors, interceptors, and enhanced command and control. The current system architecture includes SM-3 sea-based interceptors, Navy Aegis cruisers, PAC-3 missiles, and sea-based X-band radar.⁹

about the Evolutionary Acquisition strategy, see U.S. Department of Defense, *Department of Defense Instruction 5000.2*, 12 May 2003, available online at <http://www.dtic.mil/whs/directives/corres/pdf/500002p.pdf>.

⁹ U.S. Department of Defense, Missile Defense Agency, *BMDS Booklet*, 5th ed., 23 October 2007, available online at <http://www.mda.mil/mdalink/html/factsheet.html>.

Japan and the United States have been working jointly on the SM-3-related technologies and subcomponents. The Japan-U.S. technological research project on NTWD for the missile defense system covers (1) nose cones to protect missile heads from air friction; (2) kinetic warheads to destroy ballistic missiles; (3) infrared seekers to detect, identify, and track ballistic missiles; and (4) motors for second-stage interceptor rockets. These are the technologies for SM-3 missiles launched from Aegis cruisers to intercept ballistic missiles at the upper layer of or outside the atmosphere. Three of the four items are material components, and the other is sensor technology. As long ago as June 2004, a leading Japanese newspaper reported that the nose cones for missile heads had been developed by one of Japan's major companies, Mitsubishi Heavy Industries (MHI), and would be adopted as a major subcomponent of the SM-3 interceptor. According to the report, although the components were developed by both a U.S. manufacturer and MHI, the U.S. government chose some of MHI's technologies.¹⁰

Following the Evolutionary Acquisition strategy, system components of missile defense have been, and will be, upgraded and improved. Now that it is taking part in this bilateral project with the United States, the Japanese defense industry should consider the U.S. Department of Defense's new acquisition system. Both the U.S. and the Japanese defense industries should be able to adapt to the changing defense market environment and to meet demands for the best possible technologies effectively and promptly. If

¹⁰ *Mainichi shimbun* [Mainichi newspaper], 9 June 2004.

the Japanese defense industry can do this, it should be able to look forward to more opportunities like that of MHI.

Along with international cooperation on defense projects, the United States' streamlined defense acquisition could intensify worldwide competition among countries with technological capabilities. Despite the advantages of "international cooperation in defense acquisition," both the cooperation and the new standard of U.S. defense acquisition require that participants be industrially competitive. The Japanese government therefore should consider whether its policy decisions on arms exports that allow for exceptions will benefit the Japanese defense industry in the future. Legal constraints that confine the industry to the domestic market should be revised to permit the defense industry to be part of a multilateral framework. Japan's participation in the missile defense project is an opportunity for the Japanese defense industry to demonstrate its competence in the emerging market being created by the United States and its allies.

Japan's Potential Competitiveness

If the Japanese government does decide to allow arms exports, will Japan's defense industry succeed overseas? Although this question is difficult to answer, we can use rough indicators to estimate its competitiveness. In 2006, using questionnaires sent to its 137 member companies, the Japan Association of Defense Industry conducted research on the defense industry's technological base.¹¹ The main purpose of this research was to evaluate the

¹¹ Nihin boei sobi kogyokai [Japan Association of Defense Industry], *Boei sangyo no kokunai seisan gijutsu kiban iji kojo no tame no kenkyu chosa* [Study on maintaining and improving the defense industry's domestic production technology], March 2006.

companies' productive capability and to measure how well they would maintain and improve this capability in the future. The survey showed that Japan's defense R&D and production capability varied from system to system. Based on these findings, I established three categories of Japanese-made defense systems: (1) fairly competitive, (2) arduous in terms of cost and technology, and (3) less competitive but offering many opportunities.¹² I then determined the industry's possible success as an arms exporter, on the basis of its competitiveness.

The first category includes technologies related to minesweeper and sea-based equipment such as identification of friend or foe (IFF), radar, missile-launching systems for anti-aircraft operations, sound navigation and ranging (sonar), infrared imaging sensors, and periscopes for antisubmarine operations. These systems, most of which use dual-use technologies, were designed and manufactured in Japan on an established production base, in which Japanese companies already had a competitive edge over their foreign counterparts. Japan's technologies for sea-based missile-launching systems, heat-resistant construction, high-density welding, composite material processing, strengthened-steel technology, electric control technology, and airtight control technology are highly advanced. The country's expertise is largely derived from its experience with the Aegis cruiser project. MHI's nose cone, for example, was adopted as a major subcomponent of the SM-3

¹² Prospects for Japan's success in arms export, reevaluated in this paper, are based on the Japanese defense industry's own production capability, such as design, manufacture, test and evaluation, and quality control; its technological edge over their foreign counterparts; and cost competitiveness.

interceptor. When the Three Principles on Arms Exports are revised, the industry's exports in the first category will rise, and its cost competitiveness will be enhanced by the addition of more dual-use technologies.

The second category consists of magnetic measurements of underwater-weapon ranges, onboard surface ship data processing of combat control systems for anti-aircraft operations, and sea-based passive towed array sonar for anti-submarine operations. Although the Japanese defense industry already possesses most of the technologies and equipment necessary to design and manufacture these systems itself, it is not cost competitive, owing to the Three Principles on Arms Exports. Furthermore, the production capability of a small percentage of the items in this category is inferior, and most of these systems rely more on military technologies than do those in the first category. Destroyers (or escort ships) also fall into this category. Japanese shipbuilders' development and production are based on their existing capability, which is superior in designing and manufacturing hulls. Shipbuilders must, however, acquire the same expertise in manufacturing engines in order to compete with their foreign counterparts. Revising the Three Principles on Arms Exports would certainly brighten the prospects for their success in the international market, but Japanese shipbuilders will need more time and effort, compared with the first category, to succeed.

The third category refers to communication electronics like ground radio equipment, ground radar, sea-based lasers for anti-aircraft operations, and sea-based communication satellites. Even though the Japanese defense industry has an advanced production capability, it must meet other

challenges in order to be a successful exporter of these systems. In regard to communication electronics, Japanese companies still need to reduce current costs, by reexamining military specifications in cooperation with the Japanese government. In the past, because most R&D projects for communication satellites were initiated by the government and focused on commercial purposes, their applicability may be determined by the usefulness of commercial technologies for defense purposes. This third category also includes aircraft. Japanese companies already have the advanced aircraft technology and equipment necessary for domestic production through the postwar system of production licensed by the United States. As with the destroyers in the second category, however, they are faced with technological challenges to develop engines at home.

In sum, the Japanese defense industry has the technological edge on sea-based subsystems, albeit more for defensive and searching systems than offensive systems. Japan's competitive edge in naval technology stems from its deliberate efforts in this area, since Japan is a maritime nation and is located in a geopolitically vital position in the Asia Pacific region. During the cold war, Japan needed to keep a careful watch on military activities by Communist countries, especially the Soviet Union. Today Japan must keep track of China's naval activities and try to prevent terrorism and piracy in the region. As mentioned earlier, Japan's defense buildup is based on the "concept of basic and standard defense capability." It thus has established the minimum defense capability necessary for defensive purposes only, which has helped the country excel in sea-based defensive and searching subsystems.

New Directions for Japan

Japan's New Strategy as an Arms Exporter

This analysis of the three categories of the Japanese defense industry suggests that Japan can find a place in the overseas market as a subsystem supplier specializing in sea-based defensive and searching technologies, with a competitive edge on commercial and/or dual-use technologies applicable to military systems, such as electronics, materials, semiconductor, and manufacturing technologies. But because Japan's defense industry and users do not have overseas market data on Japanese-made weapons, it would be difficult for the industry to participate as a systems integrator in international cooperative projects. Instead, Japan would have more success as an exporter of subsystems, especially sea-based defensive and searching technologies, as MHI's SM-3-related technology demonstrates.

Japan's technological superiority in sea-based defensive and searching systems is shown in the following example. In 2006, the Japanese government selected Indonesia for one of its official development aid (ODA) projects, which was supplying the country with three patrol vessels to prevent piracy, maritime terrorism, and the proliferation of weapons in the Strait of Malacca. Because the patrol vessels to be exported under this project were made bulletproof in order to protect their crew members, they fell under the category of "military vessels" stipulated by the Export Control Trade Ordinance, being defined as "arms" in the Three Principles on Arms Exports. The Japanese government, therefore, decided to regard the provision of these vessels as an exception to the Three Principles. The reason

was that the Strait of Malacca is an international maritime artery, with more than 200 vessels per day in all navigating through it. About 14,000 vessels per year are bound for Japan via the strait. More than 10 percent of the entire world's piracy takes place here, so it is in Japan's interest to ensure its security.¹³

This example also shows that the Three Principles on Arms Export is an impediment to Japan's contribution to international cooperation, although the Japanese government decided to exempt this ODA project, as it did for the missile defense project. Instead, however, Japan should establish a new arms export control policy, rather than granting exceptions on an ad hoc basis. This new policy should set minimum regulations on arms export and give Japanese defense companies an opportunity to expand their business overseas.

Some Japanese worry that if Japanese companies become subcontractors, such as for the United States in the missile defense project, the country will become more dependent on foreign defense suppliers. But this should not be a problem so long as Japanese technologies are competitive enough to meet the demands of the overseas market. Given that international cooperation in defense technology is becoming the norm in defense acquisitions, it is important that the Japanese defense industry demonstrate its competence in

¹³ Japan, Ministry of Foreign Affairs, press release, "Indonesia ni okeru 'kaizoku kaijo tero oyobi heiki kakusan no boshi no tameno junshi sentei kenzo keikaku' ni taisuru musho shikin kyoryoku ni tsuite" [Grant aid to Indonesia for the project for construction of patrol vessels for the prevention of piracy, maritime terrorism and proliferation of weapons], 15 June 2006, available online at http://www.mofa.go.jp/MOFAJ/press/release/18/rls_0615c.html. Japan, Ministry of Foreign Affairs, press release, "Grant Aid to Indonesia for the Project for Construction of Patrol Vessels for the Prevention of Piracy, Maritime Terrorism and Proliferation of Weapons," 16 June 2006, available online at <http://www.mofa.go.jp/announce/announce/2006/6/0616-3.html>.

those fields in which it has a competitive edge. By revising the Three Principles on Arms Exports, the Japanese defense industry can become a successful exporter of sea-based defensive and searching systems and components and thereby be in a position to expand its exports to other technologies.

New Criteria for Arms Export Control

New export controls should be applied to those countries that are engaged or likely to be engaged in international conflicts, those that are not making efforts to prevent the proliferation of weapons of mass destruction, those that are planning a rapid expansion of their military capability, and those for which Japan's exports may cause regional instability. When revising the Three Principles on Arms Exports, the Japanese government should ensure that Japanese-made products will not intensify any conflict, lead to the proliferation of weapons of mass destruction, or help terrorist groups. That is, Japanese exporters of arms and arms-related equipment must confirm their end use and end users and make sure that the exported arms will be used only for purely defensive purposes, counterterrorism and counterpiracy measures, and postconflict reconstruction.

These criteria not only are consistent with today's international political and technological practices but also can enlarge the range of Japan's defense industries. These companies will have more opportunities to take part in international programs and will avoid being excluded from setting international technological trends and standards. The new criteria will lower the entry barriers to the defense market and make it easier for companies to

map out a strategy for the future. Japan's technological capabilities can also contribute to international security. With this strategy in mind, the Japanese government should revise the Three Principles on Arms Exports.