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# Testimony



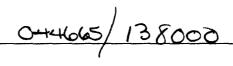
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With Japan

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Before the Subcommittee on Commerce, Consumer Protection and Competitiveness Committee on Energy and Commerce House of Representatives





GAO/T-NSIAD-89-6

Mr. Chairman, Members of the Subcommittee:

I am pleased to be here today to discuss our 1982 report on U.S. military aircraft coproduction with Japan.<sup>1</sup> Although some of the information in that report is outdated, many of the issues continue to be of major concern to the United States today. I would like to highlight some of the broader observations we made in our 1982 report as well as our findings related specifically to Japan.

#### U.S.-JAPAN OBJECTIVES PURSUED THROUGH COPRODUCTION

The United States enters into coproduction arrangements primarily for defense and foreign policy reasons. Basically, the Departments of Defense (DOD) and State have the authority and responsibility for negotiating and concluding coproduction agreements, usually Memorandums of Understanding (MOU). These government-togovernment MOUs with Japan are commonly implemented by commercial licensed production and technical assistance agreements with the U.S. manufacturers.

The major U.S. objectives of coproduction are to (1) enable eligible countries to improve military readiness through expansion of their technical and military support capability and (2) promote

<sup>1</sup>U.S. Military Coproduction Programs Assist Japan in Developing Its Civil Aircraft Industry (ID-82-23, Mar. 18, 1982).

standardization of U.S. and allies' military materiel and equipment. Through coproduction, the United States and its allies also try to prevent redundant research and development efforts. The United States receives some economic benefits in the form of licensing and technical assistance fees paid to the U.S. manufacturers, research and development recoupment charges, and the sale of some tooling and components. Japan and other allies entering into such arrangements enhance their military capabilities and at the same time benefit through the development of their high-technology industries.

DOD officials told us that in the mid-1960s, while U.S. suppliers were under strong competitive pressures from European defense manufacturers, Japan was persuaded to "stay in our camp" as it developed its domestic defense industry. This was done by offering Japan the F-4 and other systems for licensed production.

While Japan derives military benefits from coproduction, economic and industrial development considerations were important in Japan's decisions to coproduce. Japan has three alternatives when acquiring weapons for its self-defense forces: (1) design and produce its own systems, (2) enter into coproduction arrangements with the United States or other countries, or (3) import finished items from other countries.

At the time of our work, indigenous development and production was considered too expensive and time-consuming for meeting Japan's defense requirements. Japan's preference was to rely on coproduction to the maximum extent feasible, and to import finished items only as a last resort. Japan entered into military coproduction arrangements to develop and maintain a viable defense industry that would increase its military self-sufficiency, obtain advanced technology and manufacturing know-how, and enhance its high-technology employment base.

In fact, these objectives were so important to Japan that it was willing to spend two to three times more to coproduce an item than it would cost to buy it off the shelf. Japan has historically chosen cost-inefficient coproduction, even though its defense spending has been limited to about 1 percent of its gross national product. Coproduction in any country is usually more expensive than purchasing off the shelf because the typically limited production runs do not achieve economies of scale and the licensing and technical assistance fees involved. In the case of Japan, its self-defense forces have limited requirements, and its current policy prohibits exporting weapons.

#### JAPAN'S AIRCRAFT INDUSTRY WAS REVIVED THROUGH COPRODUCTION

In the post-World War II period, Japan's aircraft industry developed and grew largely through U.S. military aircraft

coproduction programs, including the F-15 program. After World War II, Japan's aircraft industry was forced to disband and remained idle until about 1952, when aircraft research and production were conditionally permitted with prior government approval. Because of the limited demand at that time, the industry's activities were focused only on repair and maintenance of U.S. military aircraft. When the Japan Defense Agency (JDA) was established in 1954, the aircraft industry expanded to include production of military items. The industry gradually rebuilt and expanded, mostly through licensed production programs and partially through Japan's own research and development programs.

Over time, new engineering technology and quality control techniques were introduced through U.S. coproduction programs. Japan licensed the production of the F-86 fighter and the T-33 trainer aircraft in the mid-1950s, the P2V-7 maritime patrol aircraft, the F-104 and F-4 fighters, and then the P-3C maritime patrol and F-15 fighter aircraft. The amount and detail of domestically produced equipment under these arrangements increased with each new military aircraft program. Japan also domestically developed and produced some jet trainers and the F-1 fighter. Japan further participated as a risk-sharing partner in the Boeing 767 civil aircraft program.

#### THE F-15 PROGRAM WITH JAPAN

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According to both DOD and State officials, Japan did not consider purchasing the F-15 off the shelf. State Department noted that if the United States had not agreed to coproduction of the F-15, Japan would have chosen to coproduce a less-capable aircraft from another source.

On June 20, 1978, the U.S. government approved F-15 licensed production with Japan. The first 14 aircraft under the original agreement were manufactured in the United States, and 88 were to be produced under license in Japan. We understand that the agreement has been updated twice since our review. Under current plans, Japan will have produced 173 F-15s at the end of the program.

The MOU contained a list of F-15 aircraft and engine technologies that would not be released to Japan for licensed production unless the U.S. government changed its position on the items. Japan would have to purchase these items from the U.S. contractors. After the program began, DOD and Japanese officials met each year to determine whether the withheld items could be released for production in Japan. The Japanese officials presented lists of F-15 items they wished to produce in-country, and DOD updated its review of the national security sensitivity of each item requested. These reviews resulted in the release of advanced composite

materials processing and bonding technology, along with other items that were originally withheld under the MOU.

#### JAPANESE INDUSTRIAL POLICIES AND INTERESTS IN MILITARY COPRODUCTION

The F-15 program was begun at a time when Japan was targeting its aircraft industry, as well as other high-technology industries, for development. Japan was steadily reducing the importance of its lower technology industries, such as shipbuilding, and favoring the development of high-technology export industries. Japan's major aircraft manufacturers expanded and upgraded their production facilities in order to handle their F-15, P-3C, and Boeing 767 work shares. Through these military and civil programs, combined, the Japanese companies expanded their production capacity, technology base, and aircraft production labor force.

Japan's producers reported making large capital investments in building new plant facilities and purchasing advanced equipment for the programs. In order to produce items under the F-15 licensing agreement, the companies reported buying new equipment for carbon and boron composites, titanium processing, titanium chemical milling, new profilers, siding presses, and modern surface and heat treatment facilities and equipment. In addition, employees of the major Japanese aircraft manufacturers received training from the U.S. coproduction partners. At the time of our work, McDonnell Douglas had stationed 40 technical assistance personnel at the

involved Japanese companies' plants. Many Japanese technicians received training in the United States at McDonnell Douglas under the F-15 program.

Japan's Ministry of International Trade and Industry (MITI) played an important role in the F-15 and other coproduction programs. MITI set policy for both military and civil aircraft production in Japan. JDA selected and decided to purchase aircraft according to mission requirements. MITI then evaluated the impact of decisions to purchase foreign aircraft on the domestic industry. While JDA ultimately decided whether to import or to coproduce foreign military aircraft, MITI's guidance and recommendations influenced such decisions. MITI had personnel assigned to JDA's Equipment Bureau and made recommendations to the JDA on contract awards for military aircraft programs. We found that MITI had influenced the JDA's decisions on U.S. aircraft coproduction.

MITI recognized that the F-15 and P-3C programs, as well as commercial joint ventures, provided the industry new technology and the necessary demand to maintain and expand the labor force in aircraft production. MITI stated that technological developments of both civil and military aircraft mutually supplement and complement each other, because "development and manufacturing techniques of both are closely related, and technological spin-offs can be mutually anticipated." We were told by U.S. industry and government representatives that some of the advanced technology

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transferred through military programs had commercial application. For example, composites, avionics, instrumentation, and propulsion technologies transferred through the F-15 program could be applied to civil aircraft production. In addition, much of the same tooling and machining technologies are used to produce civil and military aircraft.

MITI's development approach and strategy for the aircraft industry at the time of our work included the use of joint ventures, such as the Boeing 767; consortia of Japanese producers; and government support for research and development. Through these efforts, the MITI hoped that Japan would gain sufficient experience and standing to increase its share of the world aircraft market. At that time, because Japan accounted for 10 percent of the world's gross national product, MITI believed that Japan's 3 to 4 percent share of the world's aircraft sales indicated the relative weakness of its industry.

### INADEQUATE U.S. ATTENTION DEVOTED TO ECONOMIC IMPLICATIONS OF COPRODUCTION

We found that when negotiating coproduction agreements, DOD and State separated the U.S. defense and foreign policy interests from domestic economic, industrial, and labor considerations. DOD and State did not systematically draw upon the available expertise of other federal agencies when considering coproduction requests, or when negotiating and implementing these programs. On the other

hand, Japan and other countries included such interests in their decisions to coproduce rather than purchase U.S. aircraft off the shelf. We observed in our report that it is appropriate for our allies to consider their economic interests when addressing defense issues, but it is just as appropriate for the United States to do the same.

At the time of our work, U.S. government officials from several different agencies voiced increasing concern over the trade and economic implications of coproduction, including the potential adverse effect of coproduction on the future competitiveness of U.S. industry and on the U.S. balance of payments, employment levels, and the defense production base. We concluded that DOD and State had too narrow a perspective to adequately address the economic, industrial, trade, and labor interests and perspectives, and that increased interagency and government-industry coordination was needed prior to making coproduction commitments.

We recommended that the State Department lead an effort, in cooperation with the U.S. Trade Representative; the Secretaries of Defense, Commerce, Treasury, and Labor; and other relevant agencies, to formulate a comprehensive coproduction policy that would fully recognize the trade and economic implications of military coproduction as well as the political and military goals to be achieved. We further recommended that these agencies

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(1) establish procedures to coordinate consideration of allies' requests to coproduce high-technology items; (2) develop, with input from industry, criteria for conducting economic assessments-to include the impact of impending technology transfers on U.S. industry--before approving and negotiating coproduction agreements; and (3) participate with DOD in determining the releasability of high technology originally denied in MOUS.

We received comments on our report from all the involved agencies. The State Department agreed that the U.S. government should consider more carefully the economic implications of coproduction and that greater interagency coordination was needed. However, State reserved judgment on the appropriate mechanism to accomplish this. DOD agreed with the need for interagency coordination but noted that the existing system provided for careful review of all coproduction requests. DOD stated that a formal mechanism was not necessary or desirable. The other agencies agreed with the report's findings, conclusions, and recommendations.

Recent legislation<sup>2</sup> requires the Secretary of Defense to consider the effects of each MOU on the U.S. defense industrial base and to regularly solicit and consider information and recommendations from the Secretary of Commerce in each MOU negotiation. The legislation prohibits entering into MOUs requiring transfer of U.S. defense technology when an offset arrangement is involved and there is

<sup>2</sup>Defense Authorization Act of Fiscal Year 1989 (October, 1988).

adverse effect on the defense industrial base or a U.S. firm, unless the Secretary of Defense, in consultation with the Secretaries of State and Commerce, determines that the agreement will result in strengthening the national security of the United States. We believe this is a positive step toward ensuring that U.S. domestic interests are better represented in negotiating and designing coproduction arrangements and programs.

Mr. Chairman, that concludes my prepared statement. I would be happy to respond to any questions.