## The Japanese Aircraft Industry: **Friendly Skies**

By Hidehiro Konno

viation and aerospace is one of the few high-technology industries in which Japan has not vet had a major impact. Now this is changing, and the government is taking pains to ensure that the international frictions that have greeted Japan's entry into other industries will not be repeated in this highly competitive field.

The Ministry of International Trade and Industry (MITI) is taking measures to promote international industrial cooperation, and to increase Japan's imports of foreign-made aircraft and aeroengines. In manufacturing, MITI has clearly stipulated that government assistance for aircraft and aeroengines be limited to international joint-development projects. Moreover, it has cleared the way for Japanese airline companies to receive lowinterest loans from government-affiliated financial institutions to help finance

## **Promoting international** joint development

imports of aircraft from abroad.

The development of new aircraft bodies and aeroengines involves enormous risks in financing and technology. These risks are so great that failure can threaten the continued existence of even the largest corporations. Accordingly, it is now customary for a number of companies, most often in several countries, to undertake development projects jointly. In this way they can supplement each other both technologically and financially in a practical example of industrial cooperation.



The parts for the first 767 were made in participating countries and brought to Boeing's Everett hangars north of

Recognizing that industrial cooperation projects in aircraft manufacturing will contribute to the development of the aircraft industries of both Japan and its partner countries, the government revised Japan's Aircraft Manufacturing Industry Promotion Law for the first time in 30 years in June 1986 to permit partial government funding of aircraft development projects between Japanese and foreign companies, thus lightening the risks involved. The loans furnished under this law can only be applied to particularly high-risk parts of the projects.

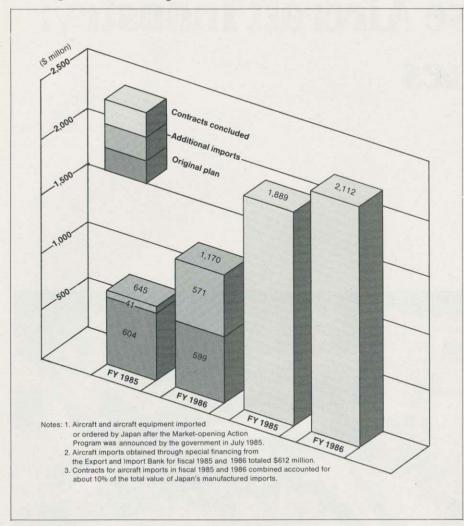
With the Japanese aircraft manufacturing industry presently grappling with projects to develop the YXX/7J7 airliner and the V2500 jet engine, the recent revision is expected to prove useful almost

immediately. Once aircraft and engines developed with the help of government finance are put on the market, the Japanese partners will repay the loans in accordance with progress in sales.

The YXX/7J7 project is a project to develop a 150-seat airplane and is under way in the United States and Japan, including Britain, Australia and Sweden as associates. Boeing Company is the principal promoter. The first delivery of the plane to airline companies is expected around 1992.

The V2500 engine is intended for use in 150-seat passenger aircraft, the size expected to be most in demand in the worldwide airline market in and after the 1990s. The U.S., Britain, West Germany and Italy are cooperating with Japan in

Fig. 1 Japan's Aircraft Imports



this project, which is now nearing the final stage. Type approval is expected in the spring of 1988.

## Aircraft imports

Demand for air transport in Japan has been increasing steadily. The trend reflects the increasing internationalization of economic society, travelers' growing preference for high-speed transport and higher income. Japanese airline companies have been expanding their fleets in order to meet this increasing demand. Aircraft are high value-added products, and cost per plane is extremely high. Accordingly, the value of aircraft imports accounts for a high percentage of the total value of Japan's imports of manufactured goods. In fiscal 1985, aircraft accounted for more than 10% of Japan's total imports of manufactures from the United States.

Demand for air transport is expected to increase further in the future. The first factor behind the forecast increase is the Japanese government's adoption last November of the fifth five-year airport improvement program. Under this program, the government will undertake the expansion of the New Tokyo International Airport at Narita, the extension of the Tokyo International Airport at Haneda and the construction of the new Kansai International Airport. The completion of these projects will remove the restraints imposed on air transport by the limited capacity of existing airports.

A second factor is intensifying competition among airline companies resulting from deregulation and the expansion of their international flight services. Increased numbers of both routes and flights, as well as improved service and lower air fares, are expected to create new demand for air transport.

Yet a third factor is the growing exchange of people and goods as economic society becomes more internationalized.

The well-planned, smooth introduction of new aircraft is essential if Japanese airline companies are to satisfy this anticipated demand and continue to fulfill their mission as a public transport service. The introduction of aircraft will also contribute significantly to promoting the import of manufactured goods, a step considered vital in alleviating trade friction with the United States and other trading partners.

In order to spur aircraft purchases, the government will furnish Japanese airline companies importing aircraft with lowinterest loans from the Export-Import Bank of Japan and the Japan Development Bank beginning in fiscal 1987. The fiscal 1987 budget incorporates appropriations for this active policy in support of aircraft purchases. The 15-year loans will carry an interest of 5.2% per annum, and will be applicable for up to 50% of the purchase price.

## Legal revision

The recent revision of the Aircraft Manufacturing Industry Promotion Law marked a significant shift in government policy. This change was summed up by the rewriting of the purpose of the law from "the promotion of domestic development of aircraft" to "the promotion of joint international development of aircraft."

The law requires MITI to provide a basic guideline (called a "development guideline") concerning the international joint development of aircraft. This guideline will provide an overall framework indicating the direction such projects should follow. The guideline should touch on trends in the aircraft industry as well as in international joint development. It should also discuss the types of aircraft to be developed and the technological goals to be attained through international joint development. The guideline is subject to updating to reflect changes in the economic environment both in Japan and abroad, including such factors as fluctuations in fuel prices and technological advances.

Based on the development guideline, the government will provide the manufacturers concerned with finance through a private corporation for promoting joint aircraft development, i.e., the International Aircraft Development Fund. The government may use this fund to finance a portion of the developers' costs.

MITI will ensure that the fund collects an appropriate share of the revenues from manufacturers that have been given development financial assistance once the aircraft or aeroengine goes on sale. Repayment out of revenue is a mandatory precondition for the fund's assistance.