## Airbus Industrie: a new world class competitor

One of the most durable joint ventures in the commercial aircraft industry is the Airbus Industrie which brings together seven major EC firms including the engine and airframe "national champions" of France [SNECMA & Aérospatiale], Britain [Rolls Royce and British Aerospace], Spain [Casa] and Germany [MBB via Deutsche Airbus].

There is a high level of participation by American and Canadian companies. For example, in order to meet the need for a more flexible production capacity and take precautions against the fluctuations of the dollar, the major European partners concluded huge subcontracting agreements in 1988 with Bombardier and the American companies Textron and Allied-Signal.

Airbus is actively looking for new Canadian partners. The European industry is also involved in most of the major U.S. civil programs through shareholding and important subcontracting agreements.

British-owned Dowty Canada supplies landing systems for the Airbus Industrie A330 and A340. Dowty Canada has located a new plant near Montreal. And Airbus partner Aerospatiale along with Aliena is seeking to buy De Havilland from Boeing to integrate it into its commuter aircraft line.

The Airbus Industrie was formed in the 1960s to develop a commercial aircraft for the European market, and it has gone through many changes, including the withdrawal of British participation in 1969, the entry of Dutch and Spanish participants and the return of the British in 1979. It was during this period that the A300 was developed. In the 1980s, two new aircraft, the A310 and A 320, were introduced and work was begun on the A330/A340, thus rationalizing the product line and establishing Airbus Industrie as a credible supplier of a family of medium-range aircraft with a variety of sizes. The consortium became a major world class competitor in the 1980s. It currently accounts for over a quarter of world-wide orders.

Helicopters: The European helicopter industry is the world's largest exporter of helicopters, supplying more than one third of the American market. In 1987, it delivered 392. Of these, 216 were for civil purposes. The peak year, 1982, saw 752 deliveries, while the low was 320 in 1985. Prospects for the EC industry are good, especially in exports. Aerospatiale, MBB, Westland and Agusta are key companies. Fleet is an example of a successful Canadian company in this area.

Aeroplane engines: This product group has experienced consistent growth. Part of this growth is linked to the rise in European aircraft production, though a more immediate factor is orders for equipping American planes with engines that were co-produced in Europe. In this area, there are more transatlantic cooperation agreements than there are intra-European ones. Examples of transatlantic alliances are the CFM international consortium between Europe and the U.S. for the CFM 56, and IAE between the U.S., Europe and Japan for the V 2500 engine.

Space equipment: Space equipment includes both launch vehicles and satellites. While it plays a minor part in the overall industry, it is rising rapidly in importance. In 1980, space equipment accounted for 3.1% of overall production; in 1987, it accounted for 6.1%. Consolidated turnover more than tripled from 1982-87, rising from \$644 million to more than \$1.92 billion. Employment increased from 13,720 to 21,000 jobs. This growth is linked to production of application satellites. The Europeans had seven satellites in orbit from 1980-84: 17 were put in orbit from 1985 to 1989. They have scheduled 20 for launch in the period 1990-1994. The largest growth factor in the space sector has been sales of launching services by the European firm Arianespace. Arianespace consists of the major European companies involved in the production of the Ariane rocket launcher. They launched 11 satellites from 1980-84, 36 from 1985-89, and have 60 slated to go from 1990-94.

## Incentive programs

The aerospace industry has been the beneficiary of massive government assistance. Intervention has taken the form of direct financing of research and public orders. Airbus, for example, has been partially financed by national governments. On average, the total R&D of European companies in this sector amounts to 20% of turnover, 7% of which is self-financed. For American companies, R&D represents 17% of turnover, 4% of which is self-financed.

## Outlook

Much of the EC aerospace production is still military. However, the military market for aerospace products has been declining due to reduced military budgets, improved East-West relations and a technology cycle which is currently in transition with second generation weapon systems due sometime in the mid-90s. On the other hand, civil aeronautics looks exceptionally good for the medium-term due to a sharp rise in air transportation and a growing need to renew the first generation of commercial jet airlines.