# COMMISSION OF THE EUROPEAN COMMUNITIES

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# ANNEX - CURRENT EUROPEAN PROGRAMMES

#### I. THE EUROPEAN AEROSPACE INDUSTRY, A GROWTH INDUSTRY

1. The European aerospace industry is making remarkably steady progress, despite the difficult general economic situation and the grave crisis which is affecting the economy and trade in the Western World.

Total turnover (civil, military and space) at constant prices and 1970 exchange rates rose by 40 % between 1970 and 1976, representing an average annual growth rate of 5.7 %. This increase is all the more noteworthy since the American aircraft industry's turnover dropped by 26 % over the same period. As a result, the European aircraft industry's turnover relative to that of the American aircraft industry rose from 18.5 % in 1970 to 35 % in 1976.

It is interesting to compare this growth with two macroeconomic indicators for the Community :

- Whereas Member States' total exports (at current prices) increased by 51 % (1) between 1973 and 1976, the European aerospace industry's turnover on external markets rose by 88 % over the same period (at current prices).
- (ii) The aerospace industry's annual growth rate (5.7 %) is almost double the growth rate for the Community's gross domestic product (2.9 %) over period in question.

One of the main reasons for this expansion is certainly the substantial injection of public money in the form of military orders and research and development contracts, which has made it possible to keep activities expanding and employment steady (at around the 430,000 mark). Another major reason is the faster rate of expansion of the aircraft markets in countries other than those normally regarded as industrialized.

2. A long-term objective of the European aerospace industry, and of all aircraft-manufacturing industries for that matter, is to reduce its dependence on military markets (which now account for 70 % of its turnover). And this objective can be attained, since all the forecasts indicate growth prospects for the civil market. Between 1970 and 1976, the European market, for example, increased in value relative to the world market from 14.7 % to 19 % (EEC relative to the Western market).

<sup>(1)</sup> including intra-Community trade

3. Hence, although the European aerospace industry still has but a marginal share of the world market for civil transport aircraft, it can be regarded as a growth industry overall by virtue of its technological potential and the performance of its end-products.

It is thus one of a select group of advanced-technology industries which are so vital for the future economic development of the Community and long-term guidelines are needed, as well as the means for implementing them.

However, some of this industry's special features should be recalled :

- (i) Its low per capita turnover compared with the American aerospace industry <sup>(1)</sup> precludes the prospect of an increase in job opportunities in the short or redium term, and most of the efforts will have to focus on maintaining the present number of jobs and improving overall productivity.
- (ii) Its continued presence as an independent entity on the world scene will depend on the effort which can be devoted to technological progress. Production capacities (sub-contracting and assembly work) will be created in an increasing number of Third World countries and, in the longer run, the competition between America and Europe in design capacities, will very probably extend to other countries (e.g. Japan).
- (iii) The value-added relative to turnover (47 %) demonstrates its importance for the Community and gives an idea of its potential impact on international trade.

#### II. THE AIRCRAFT INDUSTRY IN THE COMMUNITY CONTEXT : THE PAST

1. At the Commission's initiative, the European Institutions have since 1972, been keeping a very close watch on developments in the aerospace industry, because the answers to many of the problems affecting the future of this sector are to be found in a broader context than any single nation.

 <sup>(1)</sup> The per capita turnover figure for American companies is twice that for European undertakings (see Doc. SEC(77) 2939 of 2 August 1977, page 47, table 69).

Following a Communication from the Commission, the Council passed a Resolution on 4th March 1975 adopting the principle of Community consultation in civil aircraft matters. In October of the same year the Commission proposed a new approach in its "Action Programme for the European Aeronautical Sector" which, whilst not interfering with the structure of the industry, proposed a common strategy for civil aircraft programmes, together with the creation of practical means of cooperation and the assignment to the Community Institutions of a role in achieving the objectives of collaboration, specifically in the area of programme financing. The approach followed by the Commission was not only limited to proposing common policy objectives for the civil sector, but also for the military and air transport sectors.

Mainly because of the strategic importance of this industry, Governments have since then followed or carried out independent domestic re-organisation policies.

- 2. And yet the discussions following publication of the Action programme for the European aeronautical sector in Parliament and in Council, and in the industry, the trade unions and the other interested circles, in particular the European airlines, placed emphasis on coherent programmes. Moreover, the Council Statement of 14 March 1977 sets the following objectives, among others :
  - (i) "the establishment, in close consultation with all interested circles, of a coherent strategy with regard to any new construction programme for large civil transport aircraft, whereby the various options will be examined and duplication avoided from the outset;"
  - (ii) "implementation of procedures to bring together representatives of manufacturers and airlines for the purpose of defining aircraft types for pre-project discussions leading up to the decision to launch;"
  - (iii) "joint action by European manufacturers in the search for possible formulae for cooperation with United States industry, in order to promote penetration of the world market by European industry";
  - (iv) the need for a joint effort with regard to industrial technology programmes with a view to furthering cooperation and the dissemination of the know how necessary for the next generation of aircraft.
- 3. The present document has two aims :
  - to provide the Council with information necessary to see clearly the situation of the concertation in respect of civil aircraft programmes, based on available knowledge of what is currently happening, particularly in the industries of the three countries most intimately involved (France, Germany and U.K.).

(ii) To define a role which the Community might play in supporting the development of the European aircraft industry.

This first is covered by Chapter III and the second is discussed in Chapter IV below.

# III. SCOPE AND ORIENTATIONS OF CONSULTATIONS ON AIRCRAFT PROGRAMMES

1. After the feelers put out by several European manufacturers with a view to separate agreements with American manufacturers, it now seems possible to contemplate an agreement which, if it covered a whole range of aircraft, would have tremendous implications for the future of the civil aircraft industry in Western Europe.

In 1977 there were three major factors which augured well for the development of the European aircraft industry :

- (i) the very marked upturn in the volume of air traffic, which encouraged companies to think about replacing their fleets;
- (ii) the success of the Airbus on the world market (Airbus Industrie has to date received 95 firm orders and 63 options, taking into account 25 options on the future A300 B10 version, a total of 158 aircraft);
- (iii) the decision of the British, French and German Governments to ask their manufacturers (Aérospatiale, M.B.B., VFW-Fokker and British Aerospace) to study together a joint programme of European aircraft in a single family based on the Airbus Programme.

These three factors are closely related and have created a climate of confidence which has enabled the four manufacturers to formulate proposals aimed at concentrating their combined industrial potential on two closely integrated lines of development : the development of the Airbus programme and the launching of the JET programme both in a single framework with the aim of creating a single family of European aeroplanes, under the umbrella of one joint industrial organization, based on the present Airbus Industrie but modified to be able to undertake the new responsibilities it would have to assume.

The facts and figures backing up this approach are set out in an Annex which also deals with the smaller aircraft such as the HS 146 and the Fokker F28 Super.

- 2. The Community Concertation procedure, subject of the 4th March 1975 Resolution and 14 March 1977 Declaration, offers Member States and the Commission the opportunity to relate the problems of the aeronautical sector to the interests of the Community as a whole. In the context two aspects stand out :
  - (a) The Community market

The success of the European programmes will certainly depend on combining the efforts and resources of the industries and countries now involved, but the Community market will also be an important factor.

A broader approach than that followed so far is warranted, therefore, the objective being to draw together the interests of the different partners in the Community, i.e. both manufacturers and users. As far as manufacturers are concerned, there exists in almost all the Community countries the capability to make a contribution towards the production of aircraft, in the same way as regional facilities in the USA contribute towards final assembly of large aircraft in Seattle or Los Angeles. In the United States, moreover, manufacturers and airlines collaborate on project design; similar cooperation is needed in Europe.

To ensure that the interests of all partners in the Community coincide, and to enable all concerned to appreciate the importance to the Community of an aircraft industry which is viable and competitive on the world scene, it is important that the initiative now in hand should have the effect of strengthening the links between the countries with large aircraft industries and those which also have production capacities (albeit less developed) and represent a considerable demand as users. Any other approach could only do harm in the medium and long run, since it would reduce industrial potential and rob the industry of any chance of securing a home-market base on the scale demanded by world competition.

(b) Financing

Although it is difficult at the moment to say exactly how much it would cost to launch the programmes envisaged, the order of magnitude could be as much as \$ 2,000 million, including R&D and production tooling.

The strategic importance of this sector, its high level of technology, and its potential secondary effects on the economy as a whole are factors warranting this financial outlay. It will be necessary for resources to be mobilized on the broadest possible basis and for manufacturers in as many Member States as possible to be associated with these programmes and share in the risks.

In conclusion, concerted action within the Council should enable :

- (a) all the representatives of the Governments of the Member States to appreciate the implications and the prospects of the programmes now being planned by some of them;
- (b) meetings to be organized in an appropriate setting of the representatives of the manufacturers and of the European airlines;
- (c) the possibility of wider financial participation to be examined, entailing the participation, at the industrial level, of existing production capacities in the Community.

# IV. THE COMMUNITY'S POTENTIAL ROLE IN THE DEVELOPMENT OF A GENUINE EUROPEAN AIRCRAFT INDUSTRY

Going beyond the procedures for concerted action within the Council, thought should be given to how the Community can contribute towards the development of the aircraft industry on a European scale.

First of all, it is obviously not the Community's responsibility to intervene directly in the process of working out an industrial strategy concerning programmes. This is primarily a matter for the manufacturers, who must shoulder their responsibilities in a constructive dialogue with the airlines.

An examination of the areas in which the Community can play a role indicates three types of measures :

- (i) measures to create an internal market ;
- (ii) measures concerning the carrying by the Community of some of the industrial risks inherent in the launching of new programmes, risks usually assumed by the Governments of the Member States;
- (iii) back-up measures based on existing initiatives.

#### 1. Creation of an Internal Market

#### (a) Organization of the air transport market

Some Community measures taken or to be taken can lead eventually to the European aerospace industry having a larger market.

In this context, one should note that the air transport market in the USA, because of its size and in certain cases low cost level, has lower fares than are generally applied within the EEC.

The differences in price and in the relative development of air traffic in the USA and Europe, are also attributable to the existence in Europe of different national systems which require the negotiation of multiple bi-lateral agreements in the framework of the Chicago Convention, whilst the USA market is homogeneous and integrated.

Taking this into account, the Commission is preparing a draft Regulation applying the competition rules (Articles 85, 86, 90) to Community air transport, on which it will take a position having taken advice from national experts. A more competitive domestic European market should lead to innovation and flexibility of services, improve efficiency and lower prices to consumers.

Furthermore, the Commission intends to continue to make progress with the work currently before the Council relative to the work programme on civil aviation matters.

# (b) <u>Competition rules</u>

- Monitoring of State Aid

Government aid to industry and to users in the Member States falls under those parts of the EEC Treaty dealing with State Aids (Article 92 et seq.).

The dispositions of these articles make any aid incompatible in principle if it distorts intra-community trade and competition, but they also enable the Commission to disregard this incompatibility in certain cases.

By virtue of these articles it is incumbent upon the Commission to examine and evaluate financial aid given by Member States to support particular programmes. In order to gain a clearer idea of what is the common interest, in the terms of Article 92, §.3b, which is one of the basic tenets in the Commission's evaluations, this examination can take account of any consultation on such programmes.

#### - Inter-Company Agreements

As can be seen throughout this document, the Commission can only hope for close cooperation between Community companies in bringing about a family of European aircraft. This of course without prejudice to the dispositions of the competition rules set out in Articles 85 and following and their obligation to notify the Commission which is incumbent upon them by virtue of Council Regulation 17/62.

## (c) Harmonization of Technical Legislation

Aircraft manufacturing is conducted in an environment of national technical legislation the harmonization of which remains one of the concerns of governments and manufacturers alike.

Significant progress has been made, e.g., with standardization and airworthiness codes. A group of experts drawn from the governments and industries of seven European countries (five of them in the Community) has already drafted a European airworthiness code largely based on the American code and standards. However, ultimate success in this field will depend on whether it is possible to make the European code binding on all Community countries and secure reciprocal recognition of airworthiness certificates by the competent authorities in each Member State.

This is possible under the Treaty, which provides for the adoption of directives like those already adopted for many other branches of industry. The Commission is in contact with the national authorities and is considering taking an initiative on the matter.

# 2. Possible Community Contributions towards Financing the Launching of the New Programmes now Being Planned by the Industry

The magnitude of the planned outlay on the launching of the new programmes and the importance of these programmes to a long-term strategy for the development of the sector may justify the provision of Community resources in forms to be determined within existing financing machinery, perhaps using the new financial instrument to be employed on restructuring, or the budget aids, or the E.I.B.

### 3. Back-up Measures in the Context of Existing Resources and Operations

# (a) Commercial Policy and External Relations

The Community has direct responsibilities as regards the administration of commercial policy, cooperation agreements with several non-member countries and development aid.

Possibilities (of which the Commission is already availing itself in certain cases) are therefore open for furthering the objective of developing the Community aircraft industry :

 as regards relations with the other industrialized countries, improved market access can be ensured by establishing trade relations based on reciprocity. Tariffs are not without importance in the aircraft field ; the biggest aircraft producer in the world, the United States, still maintains a tariff of 5 % while the European Community suspends its tariff of 5 % for most civil aircraft ; there is some scope therefore in the current MTN's for opening up markets on the basis of reciprocity.

The sale of competitive European aircraft to foreign airline companies is also often influenced by the political context in which the deals take place. The Community can play an important role in backing European aircraft producers in their efforts to sell outside Europe as it is doing in our relationship with Japan to contribute towards the balance of trade with that country. In the framework of cooperation agreements with industrialized countries, with Canada for example, an important support can also be provided for sales of European aircraft and related industrial collaboration. Efforts of this kind, if made on a Community basis, could have an immense effect in our overall relationship with other industrialized countries and help to give the European aircraft industry a reasonable position again in the world.

- As regards the developing countries, which represent an important market for the European aircraft industry, Community-type export financing operations might prove necessary to maintain and expand the activities of the European industry in relation to this market.

# (b) Community Intervention in the Field of Industrial Technology

Provision is already made in the Community Budget for intervention in this area and the Commission has already presented proposals. The aim is not so much to transfer this type of operation from the Member States' Budgets to the Community Budget but, rather, to support projects planned on a basis of industrial cooperation and with a view to increasing intra-Community cooperation while rationalizing the use of public money.

Annex

Current European Programmes

#### 1. The Airbus Programme

Recent successes with the marketing of the B2 and B4 Airbus, and the prospects opened up by its first penetration of the U.S.A. market (Eastern Airlines having ordered 23 A300B4, with options on a further 9 B4s plus 25 B10s) make it possible to consider launching a new smaller 214-217 seater version<sup>(1)</sup> (the A300/B10) in a short-haul (3 300 km, 1 800 n.m.) model and a medium-haul (5 370 km, 2 900 n.m.) model<sup>(2)</sup>. This machine would represent a considerable technological advance, particularly its wings and certain electronic equipment, and would have derated or non-derated engines in the 20 t category. It would come into service in 1982. Estimated total demand prospects until 1990 for the category of aeroplane represented by the B2, B4 and B10 Airbus, and the sales prospects for the latter would be as follows, according to industrial sources :

	Europe	USA	Rest of the Western World	TOTAL
Total demand	450	1 000	550	2 000
Sales prospects	250	150	200	600
	·		 	

(1)

Single class, with a 34" seat pitch

(2) The Boeing 767 project, a twin-engined 190/220 seater will be a serious competitor.

#### 2. The JET Programme

JET originally was the joint Engineering Team set up by the four systems manufacturers<sup>(1)</sup>, British Aerospace, Aerospatiale, M.B.B., VFW-Fokker, to study a short/medium-haul narrow-bodied aeroplane equipped with two engines in the 10-14 t thrust category. The same letters are currently used to identify this aircraft (Joint European Transport). The Franco-American CFM 56 engine is suitable, as a modern technology engine for versions (JET 1) and (JET 2) (see below) of this project.

The four companies have prepared an initial design for an aeroplane which would satisfy the market needs evaluated by another working party, the Joint Marketing Team, and joint teams are currently marketing this project to the airlines.

This aircraft, which would come into service at the beginning of 1983 could be produced in two different versions, a 136 seater (JET 1) and a 163 seater (JET 2)<sup>2</sup>, to meet the demand which is represented by these capacities. Their respective ranges would be 2 400 km (1 300n.m.) and 3 100 km (1 700 n.m.)

Worldwide market forecasts for this category of aircraft  $u_p$  to 1990 and the sales prospects for the two versions of the European project would be as follows :

	Eu <b>ro</b> pe	U.S.A.	Rest of the Western World	TOTAL
Total demand	400	400	400	1200
Sales prospects	200	80 - 100 <sup>(3)</sup>	100 - 120	380 - 420

The basic model would be the JET 2 which is intended to meet the requirements of most airlines and whose seat/mile cost is optimised for short and medium ranges. The smaller JET 1, which could be available concurrently, would be aimed at those companies who need a reduced capacity with lower aircraft mile cost.

<sup>(1)</sup> This is what the aircraft manufacturers are called in their capacity as developers of a system in which different components are integrated: airframes, engines, equipment.

<sup>(2)</sup> Single class, 34" seat pitch.

<sup>(3)</sup> The twin engined Boeing 757, developed from the 727/737 with 160/180 seats will be a serious competitor.

Progressive increase in the CFM56 engine thrust would lead initially to increased range for the JET 2, and then six years after entry into service either to a JET 2 with the same seating capacity but a range of 4 400 km (2 400 n.m.), or to a stretched aircraft (JET 3) carrying 188 passengers up to 3 300 km (1 800 n.m.). This aircraft could also use the Rolls-Royce RB211-535 engine.

- 3. The trend emerging can therefore be summarized as follows :
  - (i) The European aircraft range might look like this :

	Seating Capacity	Range			
	Single Class (34 inches)	km	n.m.		
JET 1	136	2 400	1 300		
JET 2	163	3 100	1 700		
(JET 3)	(188)	(3 300)	(1 800)		
A 300 B10	214 - 217	3 300 - 5 370	1 800 - 2 900		
A 300 B2	269	3 300	1 800		
A 300 B4	269	4 600	2 500		

As it has been decided to develop a longer-range version of the A300 B4, the European range of aircraft would offer an ample spread of capacities and ranges, from 136 seats and 2400 km (1 300 n.m.) to about 269 seats and 5 500 km (3 000 n.m.) and the airlines would have at their disposal two basic aircraft (Airbus and JET) each offering different capacities and performances, with the commonality of equipment extending throughout the range. This would therefore be a way of satisfying the airlines' most keenly felt requirement, i.e., a very large measure of homogeneity in the different types of aircraft making up their fleets.

This strategy would therefore make the aircraft more competitive and more profitable, essential prerequisites to the launching of programmes.

(ii) To ensure that such a range of aircraft has maximum credibility on the market, each of them must be part of a single cooperative structure (not only for manufacture but also for marketing), the features of which are at present being studied in depth by the companies concerned. Their present leanings are towards using the structure of Airbus Industrie whilst modifying it to take account of new responsibilities.

The sharing-out of the work and the financial outlay involved are also being studied and discussed in depth. The problem is to strike a fair balance between the potential partners, a balance which can be established only by taking into account the whole spectrum of the family of aeroplanes.

#### 4. Smaller Capacity Aircraft

It should be pointed out, however, that this brief sketch of the situation has left out the question of a European presence in the category of small turbo-jet aircraft with a capacity of up to 110-120 seats.

In this category no advance has been made in the situation described in the report of 16 February 1977 by the Working Party on Economic Questions of the Council of the EEC. On the contrary, according to available information, British Aerospace has asked the Government to participate in the financing of the development of the HS 146. Thus both the HS 146 (four-engined 70/100 seater) and the Fokker F28 Super (twin-engined 100-120 seater) are still on the scene, together with the F28 and there seems little serious prospects of a joint response to this market requirement. The perspectives of the F28 Super would be also compromised by the launching of JET 1.

This is all the more regrettable since the market prospects do not indicate that duplication —which the Member States allegedly want to eliminate— will not have adverse effects.

Meanwhile, the cancellation of the VFW 614 Programme should provide some food for thought about the chances of economic success in the small jet aircraft sector and should also prompt the question why European industrialists seem to have lost interest in new turbo-prop machines for low-density, short-haul traffic.

#### 5. The Engines

The European aircraft engine industry which, in view of the long production series required to reach break-even point, must in the first instance seek a world market, has a range of engines and prototype capable of meeting the needs of the projects described above.

At present General Electric's CF6 is being used in the B2 and B4 versions of the Airbus but the Rolls-Royce RB 211-524 could equally be installed in the B2, B4 and B10 versions. The RB 211-535 version of the engine would be suitable for both the JET 3 and the planned Boeing 757. The Rolls-Royce RB 432 engine would suit the F28 Super. Finally, the French-American CFM 56 (SNECMA/General Electric) is being considered for JET 1 and JET 2 and ultimately for the JET 3.