# industry research and technology

WEEKLY

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- \*\* The Commission of the European Communities has recently transmitted to the Council a communication concerning the AIRCRAFT INDUSTRY, accompanied by four annexes, namely:
  - 1. A draft Council recommendation on the coordination of the Member States' development policies and the structural alignments of firms in the aircraft industry.
  - 2. A communication to Member States concerning the setting-up of a Community framework for aid to civil aircraft programmes carried out in the Community and having a transnational character.
  - 3. A proposed Council directive concerning the adoption of common provisions in the matter of credit insurance, credit, exchange guarantees and guarantees against rises in costs in connection with the export to non-Community countries of civil aircraft constructed in the Community, likewise under transnational programmes.
  - 4. A communication to the Council relating to customs duties on aircraft products.

A summary will be found IN AN ANNEX.

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\*\* Some of the topics dealt with at the CCNFERENCE ON "INDUSTRY AND SOCIETY IN THE EUROPEAN COMMUNITY" (see IRT Nos. 138 and 141) will require further discussion with both sides of industry. The chief of them are human conditions in industry, regional development, multinational companies and the industrialization of developing countries.

The reports and results of the discussions on the broad lines of industrial development, the development of the needs of the individual and those of the community as a whole, and the financing of social infrastructures and social investments will be forwarded by the Commission to the Committee on Medium-Term Economic Policy in order to enable it to study the problems concerned in depth and, if appropriate, make use of these reports and results in preparing the Fourth Medium-Term Economic Policy Programme.

As regards environmental protection and technological development, the Commission will consider what suggestions can be incorporated in the proposals already put before the Council or in course of preparation.

\*\*\* The Commission of the European Communities has recently proposed that a procedure be created for consultation between Member States with a view to ensuring coordination in their action on DEVELOPMENT OF AIR TRANSPORT IN THE COMMUNITY, the ultimate aim being a true common policy covering improvement of the intra-Community airline network, consultation on airline rates in the Member States, and development of the network of air services to and from non-Community countries.

- \*\* FIFTEEN TECHNICAL RESEARCH PROJECTS ON STEELMAKING have been selected by the Commission of the European Communities to receive financial assistance from the Community. They concern:
  - 1. New extraction techniques in the Eastern France iron basins.
  - 2. Development of a method of getting by cutting semi-hard iron ore of eolithic origin.
  - 3. Development of a new extraction technique for difficult geological and mining conditions.
  - 4. Direct reduction of iron ore: Purofer process.
  - 5. Improvement of the behaviour of blast-furnace nozzles.
  - 6. Improvement of foundry pig properties.
  - 7. Mechanization of the sampling of liquid pig iron and steel.
  - 8. Management of the Pits-Slabbing assembly.
  - 9. Process control by computer.
  - 10. Physical metallurgy: thermomechanical treatment of steels.
  - 11. Physical metallurgy: study of structural mechanisms.
  - 12. Physical metallurgy: behaviour of solid solutions and surface study.
  - 13. Creep behaviour of welded joints.
  - 14. The cold shaping of steel.
  - 15. The suitability of steels for cold forming.

The total aid proposed for these 15 projects is 5,431,133 units of account.

\*\*\* The ESONE Committee, composed of representatives of nucleocentres in 14 countries, has drawn up INTERNATIONAL RULES FOR THE DESIGN AND USE OF MODULAR ELECTRONIC EQUIPMENT (CAMAC) with the aim of facilitating the exchange of equipment and promoting the use of uniform methods in laboratories,

institutes and other organizations, as well as in industrial firms. An exhibition of CAMAC systems, equipment and components will be held during the first two days of the General Meeting of ESCONE (Kernforschungsanlage Jülich, Germany) on 3-5 October 1972.

With the Commission's assistance, the ESCOME Committee publishes a "CAMAC" bulletin for the information of users of the CAMAC system.

- \*\* Offprints of reports published in "European Community" on the European Community's <u>INDUSTRIAL</u> and <u>ENVIRONMENTAL POLICIES</u> will be sent free of charge to any person applying in writing to the Industrial and Scientific Information Division, Commission of the European Communities, 200 rue de la Loi, 1040 Brussels.
- \*\* A series of reports on TECHNICAL RESEARCH ON STEEL carried out in the Furopean Coal and Steel Community (ECSC) have been published recently in French and German by the Commission of the European Communities. They relate to the following subjects:
  - 1. Blast furnace automation.
  - 2. Weighing of steel in open-hearth and electric furnaces by means of radioisotopes.
  - 3. Continuous analysis of steel by means of electrochemical cells.
  - 4. Determination of the internal thermal state of ingots by means of mechanical vibrations.
  - 5. Determination of the surface roughness of wires and sheets by the pneumatic method.
  - 6. Embrittlement by cold working and aging.
  - 7. Dispersoid welding steels.

These reports may be obtained from the Commission of the European Communities (CID, 29 rue Aldringer, Luxembourg).

INDUSTRIAL AND TECHNOLOGICAL POLICY MEASURES TO BE TAKEN BY
THE COMMUNITY IN THE AIRCRAFT SECTOR

(Communication from the Commission of the European Communities to the Council)

Although the total turnover of the aerospace industry of the Six increased much faster in 1960-68 than the corresponding totals for the UK or the US, there is still a huge difference between the European and US industries as regards the level of activity: the average turnover of the Community of Ten for the period 1960-68 amounts to 14.3% of that of the US (see IRT No. 150). Only three or four civil programmes launched in Europe since the end of the war have been commercially successful, i.e., have had production runs long enough to break even.

The forthcoming accession of the UK to the Community provides a particularly favourable opportunity for working out the common policy which is needed in the aircraft sector.

# Long-term action and objectives

European action in the aircraft sector should be based on the following three guiding principles:

- 1. In view of US and shortly Soviet and Japanese competition, the size factor is crucial, whether it be the size of manufacturing concerns, the size of the European market, or the scale of the support policy pursued by Member States.
- 2. Since the aim is competitiveness, the accent must be laid on industrial and commercial character of the operations to be undertaken.

3. Since resources are limited, it will be necessary to be highly selective as regards programmes and to specialize in the types of aircraft best suited to the capacities of the European industry and to market needs.

# (a) Establishment of the Common Market

The complexity of aircraft equipment and its considerable and increasing cost call for the creation of ever-greater production assemblies having a vast market. Whereas, however, the US market is large, unified and competitive, the European market is still for the most part fragmented. In order to remedy this state of affairs, it is desirable to encourage the closest possible European-scale collaboration in the field of civil aviation, and to extend to all aspects of equipment policy in this field the collaboration already set up between the ATLAS and KSSU groups on equipment maintenance and the technical definition of new equipment requirements.

The market could be invigorated by an appropriate air transport policy.

As regards the immediate future, the following steps should be taken to eliminate obstacles to market penetration:

1. The reciprocal elimination of customs duties should be negotiated with the main external competitors. For example, the customs duty on aircraft of over 150,000 kg has been totally suspended in the Community, whereas US firms enjoy protection in the form of a 5% duty. It would be anomalous for the Community to remain deprived of customs protection while competitor countries maintained such protection.

- 2. A Furopean Airworthiness Code, backed by a European Certificate, will be proposed to the Council by the Commission as a supplement to the overall programme for the elimination of technical obstacles to trade. Work along these lines has already been begun by the Association Internationale des Constructeurs (Européens) de Matériel Aérospatial (AICMA International Association of (European) Aerospace Equipment Manufacturers).
- 3. The standardization aircraft equipment, already embarked upon by the AICMA, could be extended by the establishment of European standards as a supplement to the overall programme for the elimination of technical obstacles to trade.

# (b) The development of industrial structures

The average size of the five leading firms in the Six is one-seventh of that of the five leading US firms (the ratio is 1:5.2 for the Ten). While the cooperation towards which governments and firms are moving offers many advantages, in the long run it seems that increased productivity and efficiency can only be brought about by a change in the industrial and commercial organization of the European aerospace sector.

The aim must be to create a small number of large transnational firms, of a size which will enable them to meet world competition. It is hard to see how the production in Europe of more than one model of each category of large aircraft on the market could be justified in economic terms: competition should be mainly at the technical design and market research stages.

It is therefore essential to reach an agreement between the governments concerned as to the forms of coordination required, and speedily to adopt Community measures designed to provide a legal framework for European firms and to reduce the obstacles to structural realignments.

# (c) Finance

The need for state backing for the aerospace industry arises mainly from the amounts of capital tied up and the length of the production cycle: the R&D costs alone are 30-70 times the value of a commercial aircraft.

While the medium-term objective is to create Community planning and, where appropriate, financing machinery for joint action, thorough-going coordination of national programmes in the immediate future should lead to harmonization of the various systems of aid. The Community should also have instruments for financial action to enable it to operate as a catalyst. Here the system of "Community industrial development contracts" shortly to be proposed by the Commission appears particularly appropriate during the initial phase and for such purposes as the development of components or definition studies.

It is clearly desirable that the Member States should agree on a joint policy for aid to R&D as regards transnational aircraft programmes, and on the granting of State guarantees for loans contracted by manufacturers with finance houses. In addition, the operations of the European Investment Bank could be intensified in the aerospace sector.

As regards the marketing of civil aircraft manufactured in the Community under transnational programmes, the Commission proposes the adoption of common provisions concerning credit

insurance, credit, exchange guarantees and guarantees against rises in costs in connection with exports to non-Community countries.

It has also laid down principles for the granting of marketing aids (opening of long-term credits, interest rebates, insurance against political or commercial risks), to the supplier or buyer, in order to make "transnational" civil aircraft constructed in the Community competitive on the Common Market with aircraft from non-Community countries benefiting from export aids.

# (d) Coordination of programmes

The future of the European aerospace sector depends on programme quality and concentration of effort. In order to strengthen the aircraft industry it is essential to coordinate new production lines, which should also ensure that the equipment produced is more appropriate to social needs transcending the purely economic requirements of the air transport system (reduction of pollution, and more particularly noise). The Community institutions should therefore be used to ensure effective coordination of the standpoints of Member States concerning new aircraft programmes.

Consideration should also be given within the Community to the initiation of basic research projects with the aim of ensuring the requisite level of competence and avoiding duplication of effort.

# (e) Preparatory work on coordination of programmes

Frogramme coordination can be achieved effectively only if the Member States and the Community institutions have all the

information necessary to assess the situation. For this reason the Commission, after consulting those concerned, will draw up reports containing all the requisite data and proposals on such matters as the situation and development prospects of the aerospace sector, the types and characteristics most appropriate to needs and to foreseeable demand, and the resources required for the implementation of the projects.

The Commission also intends to take all necessary measures for the establishment of a common statistical framework for the collection and processing of data on the aircraft sector. It will call on the services of government experts and qualified representatives of industry and users.