## COMMISSION OF THE EUROPEAN COMMUNITIES

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Proposal for a

## COUNCIL DIRECTIVE

on the limitation of the operation of Chapter 2 aeroplanes

(presented by the Commission)

#### **EXPLANATORY MEMORANDUM**

Background

This proposal for a Directive falls within the Programmes of Action of the European Communities on the Environment 1973(1) and 1977(2). The 4th Programme of Action(3) specifically mentions Community work on aeroplane noise. Furthermore, the Council, in reply to Written Question N° 654/73 put by Members of the European Parliament on the subject of aeroplane noise, stated that "the environment programme of the European Communities provides for mounting a campaign against environmental and noise pollution caused by aeroplanes".

The Council has already taken action in respect of propeller-driven and subsonic jet aeroplanes; this proposal is to establish a uniform Community approach further to limit noise from civil subsonic jet aeroplanes, bearing in mind the Council's statement that account should be taken of the work done by international organisations.

**Initial Community Legislation** 

Initial action to reduce the noise from aeroplanes was taken by the Community through the Directive on aeroplane noise - 80/51/EEC<sup>(4)</sup>, which prevents any further non-noise certificated aeroplanes from being added to the civil air registers of Member States and required the removal of such aeroplanes already on the registers by 31 December 1986, (an exemption enabled a small number of these aeroplanes to continue flying until 31 December 1988). The International Civil Aviation Organization (ICAO), for its part, by its standards, has prevented any further manufacture of non-noise certificated aeroplanes. By an amendment, 83/206/EEC<sup>(5)</sup>, the Community has prevented foreign registered non-noise certificated aeroplanes landing in the Community since 1 January 1988, although some exemptions were granted until 31 December 1989. Since that final cut-off date non-noise certificated aeroplanes have ceased to be an environmental nuisance in the Community.

On 7 December 1988 the Commission passed to the Council a proposal for a Council Directive prohibiting the addition to Member States' registers of civil subsonic jet aeroplanes that do not meet the standards specified in Chapter 3 of Annex 16 to the Convention on International Civil Aviation. The Council adopted the proposal on 4 December 1989 (6).

<sup>(1)</sup> OJ NoC 112, 20.12.1973, p.1.

<sup>(2)</sup> OJ No C 139, 13.06.1977, p.1.

<sup>(3)</sup> OJ No C 328, 07.12.1987, p.28.

<sup>(4)</sup> OJ No L 18, 24.01.1980, p.26.

<sup>(5)</sup> OJ No L 117, 04.05.1983, p.15.

<sup>(6)</sup> OJ No L 363, 13.12.1989, p.27.

The preamble of this latest Directive, (89/629/EEC), clearly states that measures to limit the addition of Chapter 2 aeroplanes to the civil air registers of Member States will, in themselves, have little environmental benefit and must be complemented by measures to ban the operation of these aeroplanes. This proposal aims to phase out Chapter 2 aeroplanes over a number of years, taking into account environmental factors, technical feasibility and economic consequences. Special consideration has been given to the problems of developing nations.

Chapter 3 - The Most Stringent Existing Standard

It is generally agreed that aeroplanes meeting Chapter 3 noise standards represent the latest major development in aeroplane noise reduction, specifically engine noise reduction. It is clear therefore that aeroplanes meeting Chapter 3 noise standards represent the most up to date acoustical development that will be incorporated in manufacture and that will be operational for the foreseeable future. It follows that the best noise environmental situation in the vicinity of airports will occur when all aeroplanes using that airport meet Chapter 3 standards. Evidence that this is indeed the case is apparent from measurements taken and calculations done in Austria which show a significant reduction in aeroplane noise annoyance at Vienna airport following the replacement of some non-noise certificated aeroplanes by those meeting Chapter 3 noise standards.(1) (2) Similar studies were undertaken in France and the Netherlands which indicated that improvements of up to 5 dBs could be achieved at certain airports.(3)

A Chapter 2 aeroplane is significantly more noisy than a Chapter 3 aeroplane of an equivalent size. The following footprints were produced in the Commission's own CANAR computer programme using the FAA INM Data Bank version 3. For instance the Chapter 2 aeroplane B 727-200, (approximately 145 passengers and with a gross weight of around 190.000 lbs), gives a 90 EPNL noise footprint of 75.29 km² whereas the Chapter 3 aeroplane B 757, (approximately 180 passengers and with a gross weight of 200.000 lbs), gives a 90 EPNL footprint of only 11.22 km². Similarly a Chapter 2 DC 9-30, (115 passengers/100.000 lbs), gives a 90 EPNL footprint of 43.55 km² whilst the more capacious and heavier Chapter 3 B 767, (230 passengers/ 260.000 lbs), gives a 90 EPNL footprint of only 9.07 km². More modern types of aeroplane, the BAe 146 and the Fokker 100 for example, are even quieter. The areas quoted will differ very slightly according to the engines actually used on a particular type of aeroplane but they are sufficiently accurate for comparative purposes.

<sup>(1)</sup> ANCAT working paper ANCAT/21, WP/2, Appendix C.

<sup>(2)</sup> ANCAT working paper ANCAT/22, WP/2.

<sup>(3)</sup> ANCAT working paper ANCAT/21, WP/5.

Even if it can be shown that the actual number of Chapter 2 aeroplanes remaining in operation at a specific time hardly affects the noise/annoyance contours around an airport, as calculated by the presently accepted methodology, the significant increased noise level of a single Chapter 2 aeroplane in a stream of Chapter 3 aeroplanes, on a route to or from an airport, is known to be an annoyance in itself, whatever the smoothed numeric effect that aeroplane - or several similar aeroplanes - has in an annoyance assessment over a long period of operation.

#### **Costs to Airlines**

When both the Commission and the European Civil Aviation Conference (ECAC) proposals were first drafted, they were attacked by airline associations on the grounds that they imposed excessive and unreasonable costs on that industry. In order to quantify the costs of a non-operation rule, ECAC undertook a detailed and comprehensive study(1) of airline costs, fleet replacement plans, aeroplane availibility etc. The final conclusions of that study are quoted below:

"46. The sub-group considers that the costs of the proposals are likely to be of the order of \$500 million -measured at 1986 prices, i.e. costs discounted to the value of 1986 - but they could well be less because of a balance of factors that tend to lower costs - such as the 10% rule and exemption clauses - which have not been taken into account.

47. The total cost of \$500 million US should be looked at in the relation of ECAC (i.e. 22 member states) airline operating expenditures, - \$24.000 million US in 1985. This would indicate that the proposals would increase the costs to ECAC airlines, and hence fare levels, by about a half of one percent."

Changes which have taken place since this ECAC report was drawn up will have a significant impact on the costing. In the three years since the study was undertaken, a large number of Chapter 3 aeroplanes have been delivered and manufacturers' new orders stretch well into the '90s. These aeroplanes are needed by airlines to meet expansion plans and as fleet replacements. One of the most profound impacts will be the provisions airlines must make to deal with the problem of ageing aeroplanes. International regulatory authorities now recognize that elderly Chapter 2 aeroplanes have a finite life and have decreed that certain maintenance tasks will have to be carried out, whether they are needed or not. These considerable extra costs will shorten the economic life of Chapter 2 aeroplanes.

<sup>(1)</sup> ANCAT working paper ANCAT/24, WP/2.

Some idea of the scale of the costs has been given by one of the major leasing companies, International Lease and Finance Corporation. It estimated, for example, that the repairs to a hightime B 747, the so-called section 41 could take 40,000 man hours, (almost as long as it takes to build a new B 737), cost about \$5 million and leave the aeroplane out of operations for seven weeks. (For more details see the section: Aeroplane Life and the Ageing Aeroplane).

While some airline associations may argue about details of the exact amount of the cost of the proposal, most responsible authorities agree that the ECAC report is a good indication of the true cost to the airline industry. It is interesting to note that the ECAC methodology was accepted by ICAO as a basis for a world-wide costing exercise carried out for the 27th ICAO Assembly held in October 1989.

#### Effect on Airlines in the Developing World

In an attempt to minimize the impact of a non-operation rule on airlines in the developing world, a number of options were examined. These included:

- a total exemption from the rule. This option could put Community airlines at a considerable competitive disadvantage compared with third country operators, would encourage some operators to use developing nations as flags of convenience and was unacceptable to a large majority of Member States;
- a delay in the application of the rule. This would allow an additional two years transition phase for airlines to introduce compliant aeroplanes. The criteria for this derogation would be financial hardship and/or technical difficulties, and would be granted to airlines rather than for individual aeroplanes. It could apply equally to airlines of the Member States and the developing world and Member States could specify airports to be served by these airlines;
- an extension to the aeroplane's life. This option would allow up to three years additional "life" for individual aeroplanes, and Member States could grant such an extension to any operator.

As a result of this exercise, the Commission and ECAC decided to adopt a flexible approach to the airlines in the developing nations and, as a consequence, the proposal envisages:

- the exemption of least developed nations from the phased retirement, guaranteed access to the Community with existing aeroplanes until the final cut-off date, (Article 3. and Annex);
- exemptions, available to all carriers, which would allow both a fixed delay in the application of the Directive, (Article 4. 2.), as well as an extension to the individual aeroplane's life, (Article 4. 1.). The exemptions are cumulative.

These measures, taken in conjunction with the extended life for certain Chapter 2 wide-bodied jets, (primarily early model Boeing-747s), reduce considerably the cost of the rule to developing nations. (Study of commercially available data bases, e.g. JP Airline Fleets, Aviation Information Services, Indevo Data etc., suggests that most ACP nations for example, could meet a rule with a start date as early as 1992 with current fleets and known orders). The nations which these data bases have identified as being unable to re-equip their fleets have been exempted (Annex).

Aeroplane Life and the Ageing Aeroplane

In choosing the "life" for an aeroplane, the Commission was mindful of two important factors: the Economic Design Life Objective and recent experience with the Ageing Aeroplane.

#### **ECONOMIC DESIGN LIFE AND FLEET-LEADER(1) STATUS**

Subsonic jet	Service	Life	Leader	Life	Leader	Age
airliners:	entry	(hrs)	(hrs)	(flts)	(flts)	Design/ <i>Lead</i>
Boeing 747 DC-10-10/30 Lockhd 1011	1970 1971 1972	60.000 60.000 -	80.700 70.503 50.194	20.000 42.000	26.900 25.972 27.522	20/20 20/19 -/18
Boeing 707(2)	1958	60.000	82.600	20.000	36.400	20/3 <i>0(?)</i>
DC-8(2)	1959	100.000	75.963	50.000	44.917	20/30
Boeing 727	1964	50.000	71.700	60.000	66.600	20/26
Boeing 737	1968	51.000	69.600	75.000	90.100	20/22
DC-9	1965	75.000	63.600	100.00	90.914	20/25
BAC 1-11	1965	85.000	61.251	85.000	79.356	40/25

To some manufacturers and many operators the idea of an aeroplane life is an anathema, their view being that aeroplanes should continue to fly satisfactorily if manufacturers' maintenance schedules and service bulletins are adhered to.

The International Lease and Finance Corporation, one of the world's largest aeroplane leasing companies, has already expressed concern over aeroplanes older than 15 years. A senior executive, speaking to the International Air Transport Association, (which, coincidentally has lobbied strongly for a 30 year life), said: "We have seen the confidential reports on some of the 2.600 jet transports which are 15 years old or more, and the industry should be concerned", he went on to describe the structural reports on some of the older jet airliners as "absolutely frightening".

<sup>(1)</sup> The oldest or most used aeroplane of that type.

<sup>(2)</sup> These aeroplanes, unless re-engined (DC-8) or hush-kitted (DC-8 & B-707), may not operate into the Community - 80/51/EEC and 83/206/EEC.

Each time it flies, the pressurised hull of an aeroplane inflates and deflates slightly as the air pressure outside rises or falls. Even with more modern materials than were used 20 years ago, ageing aeroplanes still develop cracks. The design philosophy of "damage tolerance" means that an aeroplane should be able to sustain cracks without being endangered, until those cracks are large enough to be discovered during the next maintenance check. (It is interesting to note however, that the United States' Federal Aviation Administration, (FAA), has said: "Continued inspection of an aircraft for evidence of the occurrence of a known problem is an unacceptable procedure to assure safety").

This damage tolerence philosophy may not be good enough for ageing jets. After extended use, parts of the aeroplane may develop "multi-site damage", (MSD), where areas are affected by a network of hairline cracks, undetectable to the human eye. These cracks may suddenly join together into a large, critical crack. After a pressure bulkhead on a Japanese Airlines Boeing 747 failed in 1985, blowing off part of the tail and leading to the loss of the aeroplane, the FAA established a team to find out what the manufacturers' approach to MSD was. This team concluded that, although no aeroplane they inspected was unsafe, "The structural integrity of older aircraft may in future be impaired by net section yielding or degradation of fail-safety".

These fears were borne out when, on 28 April 1988, the top half of fuselage section 43, (about 18 feet of the ceiling and wall structure), of a nineteen year old Boeing 737-200 <sup>(1)</sup> tore loose in flight. In the explosive decompression which followed, one air stewardess was sucked out of the aeroplane, the five other crew members and 89 passengers survived, although some had serious injuries.

These problems are compounded by the fact that aeroplanes are remaining in service longer than was anticipated. Passenger demand is estimated to grow two and a half times by the year 2000, and orders for new aeroplanes stretch well into the 1990s. Between now and 2000 approximately 5.500 new aeroplanes will be delivered to airlines. This should allow them to scrap around 2.500 of their

<sup>(1)</sup> This aeroplane had made 89.193 flights since its delivery in April 1969 and had logged 35.000 hours airborne. In 1987 Boeing had carried out fatigue pressurisation tests of over 130.000 cycles on a 737 fuselage - 40.000 more pressurisations than this aeroplane had undergone.

ageing jets. To meet the growth in air traffic however, airlines have kept in service aeroplanes which in normal circumstances would have been retired. As an example, Boeing estimated that in 1988 airlines would retire 250 to 300 aeroplanes from service. In fact the number withdrawn was 60, as airlines kept older aeroplanes in operation to meet demand.

In conclusion, it is worth noting that although the aviation community is addressing the problem of ageing aeroplanes through increased inspections and maintenance, at considerable cost, no competent authority has decided to retire aeroplanes on the grounds of age alone. The following is an extract from Flight International, an aviation journal:

"None of the world's aviation authorities has yet been prepared to recommend or order the compulsory retirement of aircraft on the grounds of their years, but the time must surely be approaching when this must be considered. The pressure against it from the airlines would be powerful, but there is a precedent. Environmental factors have prompted aviation to ground noisy aircraft, and the airlines have been forced to retire Stage 1 aircraft and modernise their fleets if they want to operate into civilised (sic) countries. Doing the same on the grounds of aircraft age, when passenger and crew lives are at stake, as well as the lives of people on the ground, has much to recommend it, when those considerations are at least as important as people's aural comfort".

Congestion

The air transport system in Europe has partly reached its limits of efficiency. This applies especially to the national air traffic control systems and the efficient use of airport resources. The last few years have seen a world-wide growth in air traffic, to the extent that congestion has become a major problem facing airports and airlines. During the summer of 1988, the Airport Associations Coordinating Council, representing the world's airports, collected 1987 traffic figures from 25 airports, (7 in North America, 17 in Europe and 1 in the Middle East). Their annual movements ranged from 10.000 to 599.000, with the Chapter 3 content ranging from 19% to 65%. Traffic forecasts provided by the 25 airports average to a growth rate of between 4% and 5% per year until the year 2000.

As a consequence Airport Associations have lobbied the Commission to introduce a non-operation rule with an early final cut-off date, the airports' preferred date being the year 2000. The problem of airport capacity, airspace congestion and the environment are inextricably linked. Experiences at Munich 2, which will be Europe's first new airport for almost 20 years when it opens in 1992 illustrate the difficulties facing airports.

A court order by the Bavarian State Court in August 1989 will keep movements at Munich 2 below its design threshold, (260.000 rather than an initial capability of 275.000). Earlier legal moves in the 1970s had already restricted capacity by dropping the third runway. The court's equation allows for 710 movements a day if all are made by Chapter 3 aeroplanes. Any movements by Chapter 2 aeroplanes will effectively be counted as two. From this it is possible to see just how close Munich 2 has already come to its environmental capacity two years before opening. Currently 58% of Munich Riem's movements (out of a total of 147.800 in 1988), are made by Chapter 2 aeroplanes. Counted twice, the 58% of Chapter 2 movements becomes an annual 171.400. Added to 62.000 Chapter 3 movements, it would mean that the airport would have used 89.8% of its environmental capacity on 1988 figures, 233.400 movements against a ceiling of 260.000.

If there was a 6% growth in air traffic, (the real growth 1987-88 was 7.2%), and using the Bavarian State Court's equation of counting Chapter 2 movements twice, Munich 2 would exceed its legal, environmental capacity by 33.000 movements in the year of opening when operations are switched from Munich Riem. Munich is not an isolated case. Heathrow, Berlin-Tegel, Dusseldorf and many other European airports are unable to work to their full capacity or to expand to meet growth because of environmental restraints. Lack of capacity and congestion are caused by a shortage of runways - and runway use and construction are restricted because of objections to noise. Airlines must face the fact that if they want to expand to meet the growing desire for air travel they must do so with the quietest aeroplanes that are available on the market. Airlines that make the corporate decision to invest in these aeroplanes should be allowed a competitive advantage by airports, through slot allocation, reduced charges, shorter curfews, etc.

The Present Proposal

In October 1986, at the 26<sup>th</sup> Session of the ICAO Assembly a resolution, (A26-11), was adopted requesting all contracting states to refrain from enacting legislation restricting the **operation** of civil subsonic jet aeroplanes that did not meet the standards specified in Chapter 3 of Annex 16 to the Convention on International Civil Aviation before the next full meeting of the ICAO Assembly, scheduled for September/October 1989.

In the light of this resolution, work was begun by ICAO to examine the various problems associated with such a rule, (economic impact, environmental benefit etc.). In addition, a number of other bodies have studied potential non-operation rules. Apart from the Commission, the European Civil Aviation Conference and the Nordic Council have produced proposals for such a rule and the United States administration is also studying the various options.

The 27th Session of the ICAO Assembly was held in Montreal during September and October 1989. The Community position was established by the French Presidency, co-incidently the President of ECAC, based on the results of a coordination meeting held in September in Brussels. The discussions concerning future restrictions on Chapter 2 aeroplanes evolved into the most difficult of the whole Assembly The main points of disagreement between the European EEC/ECAC states and the developing nations were:

- the "not before" start date for a non-operation rule, (1995 for EEC/ECAC and at least 2000 for the African and Latin Americans(1));
- the minimum "life" for each aeroplane, (23/25 years for EEC/ECAC and at least 30 years for the developing nations).

Towards the end of the Assembly it became evident that a solution was unlikely. It was agreed, on a Saudi Arabian proposal and by a majority vote, to postpone this question to a "Special" Assembly to be held in Montreal in October 1990. The proposal also recommended that contracting states did not legislate, on a national or regional basis, before this Assembly. A position paper acceptable to all Community and most ECAC Member States(2) had been prepared, it The second second second concluded thus:

"If a non-operation rule is to be effective at a date which will procure environmental benefits, and if the air transport industry is to be given reasonable notice of the measures with which it will have to comply, legislation will most probably have to be initiated. This Decision taken (i.e. the Saudi Arabian proposal) cannot preclude the states for whom 1(3) am speaking from legislating".

Air transport links exist between the European Community and non-member countries, nearly all of whom are ICAO members. Hence the reason why the Commission, working together with ECAC, has sought the most "international" solution to the problem of the phase out of Chapter 2 aeroplanes. With regard to the Community, the Council of Ministers has adopted three Directives in the field of aeroplane noise, the first - 80/51/EEC - was effectively a non-operation rule for non-noise certificated aeroplanes within the Community, whilst the second - 83/206/EEC - extended the first Directive to aeroplanes belonging to third countries. Work undertaken by the Community in co-operation with other international bodies indicated that the third Directive (89/629/EEC limiting the addition to Member States' registers of aeroplanes which are unable to meet the

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<sup>(1)</sup> The Latin American objection to the Community position was based more on the fear that European action would be the precursor of similar U.S. action

<sup>(2)</sup> These states were the 12 Member States with the addition of Austria, Finland, Monaco, Norway, Sweden and Switzerland, (Australia also asked to be associated).

<sup>(3)</sup> Mr. Melo Antunes, Vice President of ECAC and Director General of Portugese Civil Aviation spoke in the Executive Committee, Mr. Eggers, Director General of Danish Civil Aviation addressed the Plenary Session

noise certification standards specified in Chapter 3 of Annex 16), would not reduce the number of old, noisy aeroplanes operating and therefore be of limited environmental benefit. Therefore it was to be considered only as a first stage, to be followed by measures to limit the **operation** of aeroplanes which do not comply with the standards of Chapter 3 of Annex 16.

The present proposal is largely based on the work of a joint ECAC/Commission working group. This working group was constituted in November 1989, in the wake of the failure of the 27th ICAO Assembly to find an internationally agreed solution, to examine the common ground that existed between the two organisations. The group consisted of national experts from France and the United Kingdom together with the Secretary of ECAC and a Commission official under the Chairmanship of the Director General of Danish Civil Aviation. The proposal drawn up by this group was examined, and approved, in February 1990 by the ECAC ENOPS Working Group, representing not only the 12 Member States of the Community but also 11 other European Nations. The version submitted to the Commission was discussed by the Directors General of Civil Aviation of the 23 ECAC member states at their meetings in Paris during March and June 1990.

Article 1 establishes the objective of the proposal and exempts aeroplanes of 34,000 k.g. or less.

Article 2 is the essence of the non-operation rule, i.e. after 1 April 1995, low by-pass ratio engined aeroplanes may not operate into the Community unless either they meet the standards of Chapter 3 of Annex 16 or meet the standards of Chapter 2 and are less than 25 years old. Article 2.2. ensures that after 1 April 2002 all Chapter 2 aeroplanes, low and high by-pass ratio engined, may not operate into or within the Community.

Article 3 establishes the criteria for the exemption of developing nations from the phased retirement provisions of the Directive.

Article 4 sets out exemptions that may be granted by Member States, dealing with the extension to an aeroplane's life, (3 years), and the delay in applying the rule, (2 years).

Article 5 is a limited exemption to deal with the problem of installing "Hush Kits". Article 5. 2. exempts aeroplanes of historic interest.

Article 6 covers the case where an airline has ordered a new aeroplane but the manufacturer is unable to deliver that aeroplane in time.

Article 7 is the so-called "10% rule" whereby an airline may be granted an exemption by a Member State when, owing to the 25 year life, the airline would have to withdraw more than 10% of its total civil subsonic fleet in any one year.

Article 8 is a strictly limited "exceptional cases" exemption. These exemptions are temporary, for individual aeroplanes, (e.g. for the aeroplane of a visiting head of state), and may not cover revenue earning flights.

Articles 9, 10, 11, and 12 are standard Articles.

#### Consultation

In addition to the previously mentioned meetings of the drafting group, the ENOPS Working Group and the Directors General of Civil Aviation, the Commission has held numerous meetings with aeroplane manufacturers, airline and airport operators and other interested parties.

#### **Conclusions**

The annexed proposal for a draft Directive is a dual purpose instrument concerned on the one hand with the *Environment*, in particular the improvement of the acoustic environment of people living in the vicinity of airports and under en route traffic and on the other hand, with *Industry* and *Transport*, in that it aims to ensure that a harmonized, Community approach is taken to the retirement and replacement of Chapter 2 aeroplanes.

#### Proposal for a **COUNCIL DIRECTIVE** on the limitation of the operation of Chapter 2 aeroplanes

## THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 84(2) thereof,

Having regard to the proposal of the Commission,

Having regard to the opinion of the European Parliament (1),

Having regard to the opinion of the Economic and Social Committee (2),

Whereas the application of noise emission standards to civil subsonic jet aeroplanes has significant consequences for the provision of air transport services in particular where such standards limit the useful life of aeroplanes operated by airlines: whereas Council Directive 80/51/EEC (3), as amended by Directive 83/206/EEC (4), fixes limits on emission of such noise;

<sup>(3)</sup> OJ. No. L. 18, 24:1:1980, p. 26

<sup>(4) 0</sup>J no E 117, 4.5.1983, p. 15 

Whereas Council Directive 89/629/EEC (5) limits the addition of aeroplanes that only comply with the standards specified in Part II, Chapter 2, Volume 1 of Annex 16 to the Convention on International Civil Aviation, 2nd edition (1988), to the civil air registers of Member States; whereas this same Directive specifies that the limitation on addition is only a first stage;

Whereas the programme of action of the European Communities on the environment (6) shows clearly the importance of the problem of noise and, in particular, the need to take action against noise due to air traffic;

Whereas, owing to the problem of growing congestion at Community airports it is essential to ensure that the maximum use is made of existing facilities and whereas this will only be possible if environmentally acceptable aeroplanes are used;

<sup>(5)</sup> OJ No L 363,13.12.1989, p. 27.

<sup>(6)</sup> OJ No C 328, 7.12.1987, p. 1.

Whereas the work undertaken by the Community in co-operation with other international bodies indicated that measures to limit the operation of aeroplanes which do not comply with the standards of Chapter 3 of Annex 16 must follow any non-addition rule in order to be of environmental benefit;

Whereas common rules for this purpose should be introduced on a reasonable time-scale to ensure a harmonized approach throughout the Community, supplementing existing rules; whereas this is particularly important in view of the recent impetus given to liberalization of European air traffic;

Whereas aeroplane noise should be further reduced, taking into account environmental factors, technical feasibility and economic consequences;

Whereas it is appropriate to restrict the operation of civil subsonic jet aeroplar es on Member States' registers to those which comply with the standards of Chapter 3 of Annex 16; whereas a gradual timetable for the withdrawal of those aeroplanes which do not meet Chapter 3 standards would represent a facility both for airlines and for manufacturers;

Whereas special consideration should be given to the problems of developing nations:

Whereas in cases of technical or economic difficulty, it would be reasonable to grant limited exemptions,

## HAS ADOPTED THIS DIRECTIVE:

#### ARTICLE 1

- 1. The objective of this Directive is to lay down rules to restrict the operation of certain civil subsonic jet aeroplanes.
- 2. This Directive shall not apply to aeroplanes with a maximum take-off mass of 34 000 kg or less and a capacity of 19 or less seats.

- 1. Member States shall ensure that as from 1 April 1995, civil subsonic jet aeroplanes fitted with low by-pass ratio (\*\*) engines do not operate at airports situated in their territory unless granted noise certification either:
  - (a) to the standards specified in Part II, Chapter 3, Volume 1 of Annex 16 to the convention on International Civil Aviation, 2nd edition, (1988); or
  - (b) to the standards specified in Part II, Chapter 2, Volume 1 of Annex 16 of the aforesaid Convention in the case of aeroplanes having their individual certificate of airworthiness first issued not more than 25 years before the date of operation.
- 2. Member States shall ensure that as from 1 April 2002, all civil subsonic jet aeroplanes operating from airports situated in their territory, comply with the provisions of paragraph 1 (a).

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<sup>(7)</sup> i.e. with a by-pass ratio of less than 2.

Airlines of the developing nations listed in the Annex to this Directive shall be exempt from the provisions of Article 2(1)(a) and (b) in so far as:

- (a) they operated subsonic jet aeroplanes, granted noise certification to the standards specified in Part II, Chapter 2, Volume 1 of Annex 16 to the convention on International Civil Aviation, 2nd edition, (1988), into Community airports in the 12 months ending 31 December 1990;
- (b) only those Chapter 2 aeroplanes in their fleet at that time, are exempted;
- (c) the total number of annual movements by Chapter 2
  aeroplanes permitted into a particular Community airport shall
  not exceed the number achieved by that airline's Chapter 2
  aeroplanes in the 12 months ending 31 December 1990.

- 1. Member States may grant exemptions, on an annual basis and for not more than three years in total, to the 25 year term specified in Article 2(1)(b) for aeroplanes in respect of which an airline demonstrates that the pursuit of his operations would otherwise be adversely affected to an unreasonable extent.
- 2. Where an airline furnishes proof to the competent national authority of the economic or technical impossibility of serving the airports in the territory of that authority with aeroplanes which comply with Article 2(1), Member States may exempt the airline from the provisions specified in that paragraph until 1 April 1997. Member States may specify airports to be served by airlines granted such an exemption.

- 1. Member States shall exempt from Article 2(1) aeroplanes which do not meet the standards of Chapter 3 of Annex 16 but which can be equipped to meet that standard provided that:
  - (a). suitable conversion equipment exists for the aeroplane type in question;
  - (b) aeroplanes fitted with such equipment are capable of meeting the standards of Chapter 3 of Annex 16;
  - (c) such equipment is actually available;
  - (d) the airline has ordered the equipment by 1 April 1994;
  - (e) the appropriate equipment is fitted before 1 April 1997;
- Member States may grant exemptions from Article 2 for aeroplanes of historic interest.

Member States may grant, on a "one for one" basis, exemptions from the provisions of Article 2(1) for aeroplanes where an order has been placed before 1 April 1994 for a replacement aeroplane that meets the standards of Chapter 3 of Annex 16, and where the manufacturer is unable to deliver that replacement before 1 April 1995.

#### **ARTICLE 7**

Subject to the approval of the competent authority of a Member States, airlines may not be required under Article 2(1) to dispose of aeroplanes which do not meet the standards of Chapter 3 of Annex 16 at an annual rate equivalent to more than 10% of their total civil subsonic jet fleet.

In individual cases, Member States may permit the temporary use at airports situated in their territory of aeroplanes which cannot be put into service on the basis of the other provisions of this Directive. This exemption is limited to:

- (a). aeroplanes whose operations are of such an exceptional nature that it would be unreasonable to withhold a temporary exemption;
- (b). aeroplanes on non-revenue flights for the purposes of repair or maintenance.

#### **ARTICLE 9**

- 1.A Member State granting exemptions under Articles 3, 4, 5, 6 or 7 shall inform the competent authorities of the Member States and the Commission of the fact and of the criteria for their decision.
- 2. Member States shall recognize the exemptions granted by other Member States in respect of aeroplanes on the registers of those Member States.

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 31 December 1991.

When Member States adopt these provisions, these shall contain a reference to this Directive or shall be accompanied by such reference at the time of their official publication. The procedure for such reference shall be adopted by Member States.

2. Member States shall communicate to the Commission the text of the provisions which they adopt in the field covered by this Directive.

#### ARTICLE 11

This Directive is addressed to the Member States.

Done at Brussels,

For the Council

## ANNEX

List of exempted nations:

1.UGANDA 2.SUDAN

#### COMPETITIVENESS AND EMPLOYMENT IMPACT STATEMENT

- 1. What is the main reason for introducing the measure?

  Protection of the environment, to further reduce noise caused by aeroplanes which do not meet the latest international standards
- 11. Features of the business in question. In particular:
  (a) Are there many SMEs? No
  - (b) Are they concentrated in regions which are:

     eligible for regional aid in the Member States?
    - ii. eligible under the ERDF ? N/A
- 1ft. What direct obligations does this measure impose on
   businesses?
   Airlines will modernize their fleets at a slightly faster rate
- IV. What indirect obligations are local authorities likely to impose on businesses?

None ·

V. Are there any special measures in respect of SMEs? Please specify.

NIL

- V1. What is the likely effect on:
  (a) the competitiveness of businesses? None
  - (b) employment? None
- VII. Have both sides of industry been consulted? No Please indicate their options. N/A

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