



COMMISSION OF THE EUROPEAN COMMUNITIES

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COMMUNICATION FROM THE COMMISSION TO THE COUNCIL

Community objectives for the 33rd Assembly of the International Civil Aviation Organisation (ICAO) and ICAO Council decisions prior to this Assembly in the field of environmental protection

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1. INTRODUCTION

1. The international Civil Aviation Organisation (ICAO) has a key responsibility in developing, standards and procedures for aircraft operated in international aviation. The Committee on Aviation Environmental Protection (CAEP) is responsible for advising the ICAO Council on the revision and preparation of ICAO standards, recommended in the environmental field.
2. The Community has already highlighted its preference for international solutions, to be agreed within ICAO, to mitigate the environmental impact of air transport. In its Communication on Air Transport and Environment – Towards meeting the challenges of sustainable development (“the Communication”) the Commission has stressed the importance of bringing the ongoing work programme on aviation and environmental issues within CAEP to a satisfactory conclusion by decisions of the ICAO Council and the 33rd ICAO Assembly scheduled for September 2001, thus paving the way for avoiding a worsening of the situation in the shorter-term and for improving the environmental situation on the medium- and longer-term in order to remedy development trends which are not sustainable in a business as usual scenario. The Council of Transport Ministers and the European Parliament supported this message of the Commission’s Communication on Air Transport and Environment presented in December 1999.¹

In the areas of ongoing work Community competence focuses on the development of a new, more stringent, noise standard, of a framework for transitional rules for phasing out the noisiest Chapter 3 aircraft, the identification of the potential for reducing a range of gaseous emissions, and the development of guidance on the introduction of market based measures including aviation fuel taxes or measures with similar effects aimed at reducing emissions from international aviation. The Commission’s Communication of March 3, 2000 on taxation and aviation fuel is currently under discussion in Council and European Parliament.²

3. In January 2001 the CAEP/5 meeting will have to take decisions on recommendations to the ICAO Council for new environmental rules and standards. In April 2001 ICAO will organise an international colloquium aimed at familiarising states not directly involved in the CAEP process with the issues at stake. Afterwards

¹ COM (1999) 640 final of 1 December 1999
Transport Council Conclusions of 28-3-00.
P.E. 230768, Final A5-0187/2000

² on aviation fuel taxation see also COM (2000) 110 final of 2 March 2000
COM (2000)110 final

the ICAO Council will decide on standards and proposals for complementary Resolutions to be considered by the Assembly. The process will be finalised with decisions to be taken at the 33rd Assembly in September/October 2001.

4. The purpose of this Communication is to identify the Community's objectives for the 33rd ICAO Assembly and the ICAO Council decisions prior to this Assembly. The Community objectives put forward in this Communication take account of already established Commission and Community policies, as laid down in various Commission Communications, Council Conclusions and European Parliament statements. The Commission is looking forward, on the basis of this Communication, to clear orientations from the Council for the definition of Community positions for all phases of the ongoing ICAO process.

2. COMMUNITY OBJECTIVES

Aircraft noise

5. For the Community the **short term objective** is to avoid an increase in the noise impact, in terms of people affected by aircraft noise, in particular after the end of the Chapter 2 phase out in 2002. The analysis within CAEP of the environmental benefits of various phase-out options as computed by MAGENTA³ (Model for Assessing Global Exposure to the Noise of Transport Aircraft) clearly demonstrates the urgency of action in Europe and the existence of significant regional differences between major airports in Europe, North America and Asia-Pacific countries in this respect. Whereas, for North America a “no action” scenario (i.e. agreement within ICAO on neither a new noise standard nor a transitional strategy) would lead to a noticeable reduction in the level of noise nuisance by 2020 as the relatively old fleet is replaced through natural wastage, this is not the case for Europe where the average fleet is much younger. Europe, therefore, could expect much less improvement from normal fleet renewal, and needs, therefore, additional measures as Community has consistently argued. In addition, according to most forecasts Europe can expect higher growth rates in aviation than North America. The need for regional flexibility has been accepted at the recent CAEP/5 Steering Group meeting.
6. The short term Community objective can best be achieved by rules on the limitation of the operation of the least noise efficient aircraft meeting the current Chapter 3 standard. Therefore, agreement at the 33rd Assembly on a transitional strategy is for the Commission an essential component of any global agreement on a new noise standard. This is a key issue for the Community. The limit values for non-operation rules, which are based on the performance of the noisiest aircraft, are clearly not meant to influence future aircraft design. The Commission is therefore in favour of establishing separation between the noise threshold for transitional measures including non-operational rules and that applicable to a new design standard. A staged phase-out might be envisaged to effectively serve this goal.

³ MAGENTA calculates the number of people exposed to significant levels of aircraft noise around the world's jet airports under any specified certification and phase out scenario. For the purposes of MAGENTA DNL (Yearly Day Night Average Sound Levels) 55dB and DNL 65dB have been retained

7. As regards the application scope for initial transitional rules the Commission believes that they should be applicable in regions with particular aircraft noise problems. The Commission proposes to consider the following attenuating complementary measures once such limitations to the operations of the noisiest aircraft start to apply at Community level.

- Rules aimed at safeguarding a minimum aircraft life in order to keep economic costs for air carriers under control.
- Assessment of the necessity to apply as from 1 April 2002 the non-operation rule as laid down in Council Regulation 925/1999 (EC) on recertificated aircraft.

This Regulation was rendered necessary by the lack of progress in ICAO at the time of its adoption. It is clear that once ICAO adopts at the 33rd Assembly measures offering over time environmental benefits superior to the Regulation, the necessity maintaining this Regulation will need to be addressed.⁴

- A system of derogations for non-complying aircraft registered in developing nations, where such derogations are justified.

This is in line with the report of the European Parliament on the Commission's Communication on Air Transport and Environment⁵. In order not to jeopardise the environmental benefits of a phase-out, any such derogations should be subject to conditions. In addition, the criteria to be used for identifying qualifying nations and aircraft should be carefully identified with a view to give developing nations the possibility to avoid economic hardship whilst safeguarding undistorted competition with carriers from developed nations. In this context it will be important to strictly avoid the emergence of 'flags of convenience' problems. The various modalities for granting derogations to developing nations are currently being studied by the Commission in order to provide a solid basis for any future decision on this issue;

8. For the Community **longer term** objective in the field of aircraft noise of accommodating the implications of expected increase in demand in the long term will require, amongst others, a significant reduction in the noise of individual aircraft. A new noise standard aimed at solving long term noise problems can only be effective in achieving this goal if it provides clear guidance for future aircraft design. Its limits should be conceived to stimulate a more wide-spread use of state of the art design and equipment. When looking at the basic stringency options under consideration within CAEP (see Annex) it seems obvious that a cumulative increase in stringency of -8dB or -11dB does not meet the requirements of a genuine long-term design standard. Since it will mainly affect the environmental performance of derived versions of currently manufactured aircraft or provide a benchmark for the

⁴ In addition to noise the Regulation 925/99/EC serves also other environmental goals.

⁵ "...the Community should support and strengthen the ICAO process of revising noise stringency levels on order to meet as far as possible the particular needs of the densely populated, industrialised EU and to take account of the particular needs of third country airlines from the developing world who operate into the EU.

modification and recertification of aircraft which are considered still to have an economic life, an initial stringency increase in the order of –8 dB to –11 dB would, therefore, have to be considered as a de facto production standard.

9. The possible introduction of a production standard based on a relatively moderate increase in stringency will imply that a number of current Chapter 3 aircraft will become candidates for recertification either with or without modification. The Commission is of the opinion that ICAO should simultaneously with the adoption of a new standard establish unambiguous technical guidance for recertification with a view to maintaining the integrity of the certification process and establishing confidence in the noise certificate, and it welcomes the commitment by ICAO to achieve this..
10. The Commission is furthermore of the opinion that, in order to accommodate the longer term noise reduction objectives, a decision within ICAO on a new production standard should be complemented by a firm and credible commitment by ICAO to taking account of the current state-of-art and technological feasibility establish the parameters for a genuine design standard based on a revised certification scheme that accurately reflects the operational performance of modern aircraft.
11. In relation this Community's long-term objective a clear assurance will be required about an ICAO commitment on future noise stringency that will provide sufficient noise relief in the medium and longer term. This will be determined by:
 - the quality of the new standard, which should provide an incentive to improve the environmental performance of current production aircraft and avoid any deterioration in the noise situation in Europe, in terms of people affected by aircraft noise. Regarding the current state-of-art, the cumulative margin ranges from –7.9 dB (one aircraft type) up to –25dB whereas about 95% of the current production would meet a standard of –11dB and about 75% a –14 dB requirement
 - the introduction of a mechanism allowing for a regular revision of the production standard. Such a phased increase in stringency will be of particular importance if initially there is a moderate increase in noise stringency(–8dB or –11dB);
 - a firm commitment by ICAO to establish by the 34th Assembly a new design standard for the long term, which should stimulate technological progress and be based on a revised certification scheme reflecting more accurately the noise produced by modern aircraft under operational conditions.
 - The predictability and legal soundness of rules establishing the way forward over a longer period.
 - Complementary guidance for ICAO contracting states in relation to other action parameters on aircraft noise (balanced approach).

Gaseous emissions

12. Emissions of carbon dioxide and water vapour are directly related to fuel consumption and there are direct market pressures for their reduction. Other gaseous emissions are not so related. It will be essential to ensure that the interactions between optimising fuel consumption and reducing emissions of other gases and also of noise are fully understood and appropriately taken into account in regulation. NO_x in particular is a potential problem at and near to ground level in the LTO cycle because of adverse effects on local air quality, and at cruise altitude where it is involved in the production of ozone – a powerful greenhouse gas (though not one controlled under the Kyoto Protocol). Concerning particulate and aerosols emissions from aircraft engines, further research work is necessary in order to develop scientific basis for the assessment of their effect on climate through contrails and cirrus cloud formation.
13. The **Community objective** will be to secure decisions, which would allow for the earliest introduction of increased stringency standards for all emissions including those not covered by the Kyoto-Protocol. In the short term this may be achieved by establishing meaningful parameters to identify and control development of engines so that emissions of NO_x and other regulated gases do not increase, and preferably reduce, at all phases of flight. It will be essential that this is given priority in the work programme for CAEP/6 and that the relevant working group should be encouraged to propose more stringent certification standards for new engines to enable decision in 2004. In the short term the impact of allowing the continuing production of engines which do not meet the CAEP/4 NO_x standard should be assessed with a view to the consideration of a non-production rule as an interim step, which has been an Community request already for the 32nd ICAO Assembly. The Community could also consider a “non-addition rule” to require that all new aircraft entering the EU fleet meet the highest standards laid down in Annex 16. In relation to emissions covered by the Kyoto-Protocol the Community objective will be to require a reduction of the growth of emissions from international aviation as soon as possible.

Strengthening economic incentives to improve environmental performance

14. Economic (market) incentives for industry to limit or reduce emissions from aviation in a cost effective way could include levies (taxes and charges), emissions trading and voluntary agreements. Taxes could be levied on fuel or on emissions and collected through fuel suppliers or in addition to the en route charges already made for other purposes. A revenue neutral aircraft efficiency charge would avoid the legal issues associated with a fuel tax and could also be administered in association with existing en-route charges to achieve a revenue neutral outcome. An alternative would be to introduce an en-route emissions charge with the revenues used to mitigate the environmental impact from emissions. Emissions trading also has the potential to make aviation accountable for its emissions in the longer term on condition that a strong compliance regime is agreed.
15. Near-term action by the aviation sector toward reducing the growth of greenhouse gas emissions could be done voluntarily but could not alone achieve an ambitious emission reduction target. It would have to be used in conjunction with other mechanisms such as emissions trading.
16. The Community Strategy on the integration of environment and sustainable development into transport policy, approved by the Helsinki European Council in December 1999, identified economic incentives as one of the ways of tackling the

environmental impact of aviation. It considered as a priority action, the introduction of economic incentives taking into account, inter alia, the need to avoid distortion of competition, the needs of peripheral locations and the desirable contribution of voluntary agreements within the aviation industry.

17. The Communication on Air Transport and the Environment suggested the introduction of economic and regulatory incentives to encourage the use of state of the art technologies and environmentally friendly operations. Whilst maintaining the Commission's well-established position of principle that aviation fuel should be treated on the same basis as fuel use in other industries it also recommended the development of innovative concepts of economic instruments such as emissions trading and argued for the integration of environmental costs into charging systems. These ideas were favourably received by the Council on 28 March 2000, and it invited the Commission to continue its work in this area. The European Parliament also welcomed the proposed work programme. The Parliament added that, in the absence of international agreement on taxation of kerosene it would propose a Community-wide charge, based on the polluter pays principle, to ensure fair competition between modes of transport. It further proposed that the revenue be invested in reducing the environmental damage caused by aviation.
18. The ECOFIN Council has examined a Communication from the Commission on Taxation of Aircraft Fuel. The Commission's recommendation that Member States, in close co-operation with the Commission, intensify their work within the ICAO framework for the introduction of taxation on aviation fuel and other instruments with similar effects was broadly supported. This action should be completed with the adoption by the Council of the Commission proposal for a Council Directive, restructuring the taxation of energy products⁶.
19. On 22nd June 2000 the Environment Council welcomed the Commission's Communication on EU Policies and measures to reduce greenhouse gas emissions towards a European Climate Change Programme (ECCP)⁷ as a useful step towards identifying and developing further elements necessary for the implementation of the Kyoto Protocol. It emphasised the need for national action to be complemented at Community level and supported the exploration of emissions' trading within the European Union. The Council also recalled the responsibilities of ICAO on bunker fuels and urged it to reach conclusive agreement on actions to be undertaken by 2001 at the latest. From this background there is a clear Community interest in preparing the field for policy action on economic incentives/market based instruments.
20. ICAO has already recognised the need for action. The 32nd ICAO Assembly in October 1998 asked the ICAO Council, through CAEP, to study policy options to limit or reduce greenhouse gas emissions from civil aviation. It asked that it take

⁶ COM(97)30 final. This proposal is going to replace, if adopted, Council Directive 92/81/EEC which provides for an obligatory exemption from taxation of fuel used by commercial aviation. The proposal provides for optional taxation of national intra-Community flights on the basis of voluntary bilateral agreements. However, Community unilateral action should be avoided in order not to distort competition to the benefit of third country aircraft and create socio-economic effects.

⁷ COM(2000)88 final. EU policies and measures to reduce greenhouse gas emissions: Towards a European Climate Change Programme (ECCP).

account of the IPCC Special Report on aviation and the global atmosphere and of the requirements of the Kyoto Protocol. The Council was asked to provide a report to the 33rd Assembly: In a further specific request it asked that CAEP provide advice on emissions related levies and other market based measures with a view to reaching a conclusion to the same timescale.

21. CAEP/5 has studied a wide range of options. Results presented at the Steering Group in September 2000 show, from an international aviation perspective, that an open emissions trading system offers, under certain conditions, a potential for optimising the relationship between environmental effectiveness and economic impact/cost-effectiveness for the industry. However, this option will need a great deal of further work to address a series of issues (including any questions of allocation of emissions to Parties) and this work will have to be undertaken in close liaison with the UNFCCC/ COP. For this and other reasons, open emissions trading for aviation is not likely to be operational significantly before the first Kyoto commitment period (2008-2012). Therefore, the CAEP/5 Steering Group has stated the need for other measures such as taxes, charges or voluntary agreements.
22. **The first Community objective** will be to clarify and develop further guidance for policy action on market-based measures including taxation of aviation fuel and other measures with similar effects fully reflecting the environmental impact of aviation. The Community will work through ICAO/CAEP to secure this and in particular will, in formulating a response to the request from the ICAO 32nd Assembly in October 1998 for draft guidance on taxes, charges and other market based measures, seek to clarify that guidance on environmental levies such that environmental costs are identified and may be internalised.
23. **The second objective** will be to obtain a Resolution facilitating action of contracting states and in particular Annex 1 States to meet the terms of Article 2.2 of the Kyoto Protocol to make clear that the Community and its Member States (as Parties) will need to take steps to fulfil their commitments under the Kyoto Protocol. This will require a strategy for reducing emissions at source; improving operating practices; and introducing market based measures. In developing these objectives the Community should encourage and recognise early action by industry to reduce greenhouse gas emissions.
24. The following elements are proposed for inclusion in ICAO Resolution(s) on the Kyoto process which could be developed to provide such additional policy guidance: potential applicability by all ICAO Contracting States, but particularly Annex 1 Parties, the need for Annex 1 Parties to introduce measures related to aviation in their climate change programmes, in the shorter term as well as in the first Kyoto commitment period (i.e. before emissions trading mechanisms can be established), and, explicit recognition of the industry need to be given credit for early action, perhaps in connection with an emission trading regime introduced at a later stage.
3. **THE POSITION TO BE TAKEN BY THE COMMUNITY AND ITS MEMBER STATES IN PREPARATION FOR AND AT THE 33RD SESSION OF THE ICAO ASSEMBLY**
25. In the light of the above, the Commission proposes that the Community position for the discussions and negotiations at the 33rd session of the ICAO Assembly as well as

for the preceding ICAO Council decisions shall be to carry out the negotiations with a view to:

- Agreement by the Assembly of a Resolution on the limitation of the operation of the least noise efficient aircraft within the current Chapter 3, which provides the European Community States with sufficient regional flexibility to address their specific aircraft noise reduction objectives with a view to preventing in the short-term a worsening of the noise situation around airports in terms of people affected by aircraft noise, in particular after the completion of the Chapter 2 phase out;
- A decision by Contracting States on a new, more stringent, noise standard for aircraft to replace the current Chapter 3 standard taking into account environmental benefit, technological feasibility and economic reasonableness;
- A commitment by the ICAO Council on the necessity to revise with a view to improvement in the longer-term the noise stringency standard at regular intervals that might vary according to technological developments with a view to preventing a worsening of the noise situation in the medium term in terms of people affected by aircraft noise ;
- A commitment by ICAO on the establishment by the 34th Assembly of long term noise reduction goals as well as on the identification of a future design standard capable of meeting these goals with a view to neutralising and outweighing in the longer term the environmental impact of growth in air transport;
- Agreement by the Assembly of a Resolution in response to a request from the 32nd Assembly developing further existing guidance on the use of economic measures such as environmental levies including aviation fuel taxation or other measures with similar effects with a view to clarifying that environmental cost may be internalised.
- Agreement by the Assembly of a Resolution facilitating action by contracting states and, in particular, Annex 1 states to the Kyoto Protocol, to meet their commitments under the terms of Article 2.2 of the Protocol.
- A commitment from ICAO to foster development of further scientific bases to assess aviation's atmospheric effects and, in parallel, to intensify work on developing new standards for the reduction of all aircraft emissions in view of CAEP/6.

26. The Community position shall be put forward by the Commission and, where this is necessary, by the Presidency speaking on behalf of the Community and its Member States.

Co-ordination will take place (either on the spot or where appropriate within the Council bodies in Brussels) in order to ensure close co-operation between the Community and its Member States and thus unity in the international representation of the Community.

27. The Conclusions of the Assembly will be carefully considered in the light of the Communities existing policies and the aims expressed in the Communication,

particularly with regard to Council Regulation 925/1999 (EC) and established Kyoto commitments of the Community.

Annex

Options under consideration following the CAEP steering group meeting decision of 26 September 2000

N° of option	Cumulative increase in stringency versus current Chapter 3 limits and date of application	
	New standard	Phase-out
- 8dB option		
2.1	- 8dB in 2002	/
4.1	- 8dB in 2002	- 8dB in 2006
6.1	- 8dB in 2002	- 5dB in 2002, - 8dB in 2006
5.1	- 8dB in 2006	- 5dB in 2006, - 8 dB in 2013
- 11 dB option		
2.2	- 11dB in 2002	/
5.2	- 11dB in 2006	- 5dB in 2006, - 11 dB in 2013
- 14 dB option		
2.3	- 14 dB in 2002	/
5.3	- 14 dB in 2006	- 5dB in 2006, - 14dB in 2013

Note: It was agreed that the options currently no longer under consideration, could be considered at a later time, if necessary as a consequence of the assessment of recertification or regional particularities.