WORKING PAPER

INTERNATIONAL CIVIL AVIATION ORGANIZATION

ASSEMBLY — 32ND SESSION

EXECUTIVE COMMITTEE

Agenda Item 21: Environmental protection

REPORT ON ENVIRONMENTAL CHARGES AND TAXES

SUMMARY

This paper reports on the Council's work with regard to noise-related charges and emission-related charges and taxes with particular attention being given to the latter in response to a specific request to that effect from the 31st Session. Proposed action by the Assembly is at paragraph 5.

REFERENCES

A32-WP [Resolution A31-11]
Doc 9659, A31-EX
Doc 9082/5, *Statements by the Council to Contracting States on Charges for Airports and Air Navigation Services*
Doc 8632 (1994) and Supplement (1997), *ICAO's Policies on Taxation in the Field of International Air Transport*
State letter AN 1/17.9-97/62 dated 11 June 1997

1. INTRODUCTION

1.1 The 31st Session of the Assembly requested that a report on environmental charges and taxes as a means of reducing adverse environmental consequences of aircraft engine emissions be submitted to the next ordinary session of the Assembly. As defined by ICAO "charges are levies to defray the costs of providing facilities and services for civil aviation whereas taxes are levies to raise general national and local government revenues that are applied for non-aviation purposes".

1.2 ICAO has been addressing the application of economic instruments to reduce or eliminate the adverse environmental consequences of civil aviation for many years. Initially attention was focussed on aircraft noise, which led to the development in 1981 of a specific ICAO policy on noise-related charges, reproduced in Appendix A, which is contained in the *Statements by the Council to Contracting States on Charges for Airports and Air Navigation Services* (Doc 9082/5). Subsequently concerns centred on aircraft engine emissions which led to the adoption by the Council in December 1996 of the *Council Resolution on Environmental Charges and Taxes,* reproduced in Appendix B.

1.3 The Organization's current environment-related activities are largely undertaken by the Council through its Committee on Aviation Environmental Protection (CAEP) which focusses primarily on aircraft noise and the environmental impact of aircraft engine emissions. The Committee was initially established to address the technical aspects of aircraft noise and engine emissions issues but has since 1992 also been assigned the task of addressing economic (charges) aspects of the emissions issue.

2. NOISE-RELATED CHARGES

2.1 Noise-related charges have been effective in encouraging aircraft operators to accelerate the introduction of quieter aircraft. The ICAO policy on noise-related charges has found wide acceptance, and requests for change have not been received from States nor aircraft operators directly or through the CAEP process. Practical advice on determining the cost basis for noise-related charges and their collection is provided in the ICAO *Airport Economics Manual* (Doc 9562), and information on noise-related charges actually levied is provided in the ICAO *Manual of Airport and Air Navigation Facility Tariffs* (Doc 7100).

3. EMISSION-RELATED LEVIES

3.1 Introduction

3.1.1 ICAO first addressed the introduction of emission-related charges at the 1991 Conference on Airport and Route Facility Management. The Conference noted that while noise was essentially a problem at the local level aircraft engine emissions had global implications, and that more information was required to assess accurately the extent of the impact and costs attributable to these emissions both in absolute terms and compared with pollution by other modes of transport, industry and other economic activity. It therefore recommended firstly, that a study be undertaken of whether charges could be an effective means of reducing adverse environmental consequences of aircraft engine emissions; and secondly that in the meantime if charges were to be considered some basic principles should be taken into account (no fiscal aims, no distortion of competition with other modes of transport, efficient use of aircraft capacity not prevented, and cost relatedness), an approach subsequently endorsed by the 31st Session of the Assembly.

3.1.2 The Council approved this recommendation and assigned the study to the CAEP. A progress report on the study was presented by CAEP at its third meeting in December 1995 followed by a more extensive progress report by CAEP at its fourth meeting in April 1998 which will be elaborated on below.

3.2 Council resolution

3.2.1 Subsequent to the 31st Session of the Assembly and the third meeting of CAEP it became apparent that there was a need for a formal indication of ICAO's position with regard to emission-related levies. Underlying this development was the growing interest in the possible application of environmental charges or taxes to civil aviation expressed in other international fora, primarily ones within the

United Nations system (for example, the Commission on Sustainable Development (CSD) and the UN Framework Convention on Climate Change (UNFCCC)) and also the European Union.

3.2.2 The Council noted that delaying a policy statement by ICAO on emission charges until CAEP had completed its work in that area could compromise ICAO's role in protecting the interests of civil aviation since other UN policy-making bodies might take action with regard to emission-related levies, possibly detrimental to civil aviation in the absence of an ICAO policy. At least an interim statement from ICAO was therefore required. The Council also noted in this respect that relevant policy guidance already existed in the Council Statements in Doc 9082/5 and ICAO's *Policies on Taxation in the Field of International Air Transport* (Doc 8632). However, neither emission-related charges nor emission-related taxes were specifically identified in these policy statements and it was desirable to have ICAO's position on this complex subject recorded in a single concise text. On the basis of these and other factors the Council adopted in December 1996 the *Council Resolution on Environmental Charges and Taxes*, reproduced in Appendix B, and which was circulated to States in State letter AN 1/17.9-97/62 dated 11 June 1997.

3.2.3 Although the title of the Resolution refers to environmental charges and taxes, the Resolution in fact focusses only on emission-related charges and taxes. In the resolution the Council "Strongly recommends that any environmental levies on air transport which States may introduce should be in the form of charges rather than taxes...".

3.3 The Kyoto Protocol

3.3.1 An important development which places more responsibility on ICAO in the area of emissions emanates from the meeting which took place in Kyoto in December 1997 of the parties to the UNFCCC. The meeting adopted the Kyoto Protocol wherein it is, *inter alia*, agreed that the parties would work through ICAO in pursuing limitation and reduction of greenhouse gases from aviation bunker fuels. In this connection, some States sought to include a specific reference to taxation of aviation fuel in the Protocol but this was omitted from the adopted text.

3.4 Report of the Fourth Meeting of CAEP

3.4.1 CAEP/4 presented a major progress report on emission-related levies, based on a study carried out within the Committee. While initially having intended to focus on emission-related charges, CAEP, in the report considered a number of options that were either charges or taxes as defined by ICAO. Noting that the generic term "levies" covered both charges and taxes CAEP used this term throughout the report. The report addressed, *inter alia*, specification of the emission levies such as the substance to which a levy would apply (for example CO_2 and NO_x), and the collection and application of the levy. Basically four options were considered, that is a fuel levy, a ticket levy, a route levy and an airport levy; as well as the effectiveness of each in reducing emissions depending on whether a global or local pollution problem is involved. As to levy application the report considered a revenue neutral application, a general taxation application, levy application based on a prevention cost approach, and application involving paying damages suffered by third parties. The report also addressed implementation aspects of environmental levies both as they relate to levy collection as well as to levy application, and the role of ICAO with regard to such levies.

3.4.2 Preliminary analysis had shown that with regard to the global problem the route or fuel levy would be most effective, while an airport levy would be most effective in reducing local emission problems. However, with regard to a fuel levy - in effect tax - option, the report noted that ninety-seven per cent of bilateral air services agreements contained provisions exempting fuel used in international operations from taxes. This reflects that taxation of aviation fuel would be contrary to Article 24 of the Chicago Convention and the well-established and long-standing policies of ICAO which provide for exemption from taxation of aviation fuel used in international air transport. CAEP noted that these policies, identified in Assembly Resolution A29-18 and detailed in *ICAO's Policies on Taxation in the Field of International Air Transport* (Doc 8632) as well as their underlying rationale, should be taken into account in any further development of the consolidated policies on environmental protection in Assembly Resolution A31-11 or in future work in this area.

3.4.3 The Committee emphasized the preliminary nature of its report and that much further work needed to be undertaken, including harmonizing the many different views that existed in this area. Among issues requiring further consideration CAEP referred to the definition of emission levies as these might be neither charges related to clearly identifiable costs, nor taxes raised solely for fiscal purposes; examination of the economic effects of emission levies at different rates and by a different number of States; development of guidelines in the design of methodologies for calculating aircraft engine emission levies, and how revenues from emission-related levies might be rechannelled. Also, considering that the harmful effects of emissions were caused by different substances at the global level as opposed to the local level which in turn required different types of levies to optimize the beneficial effects from levy application, the Committee agreed there was a need to harmonize action with regard to the design, introduction and application of levies at both these levels. The Committee noted there were other market-based options, such as emissions trading, that also required further study.

3.4.4 In its further work on these issues, CAEP plans to undertake the tasks identified above as well as develop basic guidance on identifying costs of emissions; study administrative mechanisms required for different types of emission levies; and explore the applicability of emissions trading and carbon offsets.

3.4.5 Participation in this further work may be broadened to include experts who are not part of the current CAEP circle of members, observers and advisers. This would allow for more financial/economic expertise and for a more balanced geographical representation (CAEP being essentially composed of technical experts primarily from developed countries). The work called for should be completed well in advance of the fifth meeting of CAEP currently scheduled for the first quarter of 2001.

3.5 Orientation of future work

3.5.1 Two fundamental considerations are relevant to ICAO's approach towards reducing the adverse environmental consequences of aircraft engine emissions. The first is ICAO's role as a guardian and promoter of the interests of international civil aviation. The second, further to acknowledging aviation's contribution to adverse consequences of emissions globally and locally, is the responsibility of ICAO to develop policy guidance and practical procedures in accordance with which international civil aviation would pay for its share of the harmful effects of emissions. These fundamental considerations are compatible, since action to pursue the latter can be fully consistent with the former.

3.5.2 A principal question which arises in connection with any action undertaken by ICAO aimed at the possible application of emission levies is how best to approach this issue while at the same time safeguarding the interests of international civil aviation. The ICAO Council unequivocally states that it "strongly recommends" charges rather than taxes in the *Council Resolution on Environmental Charges and Taxes* (see paragraph 3.2.3 above). The charges approach has the advantage of protecting the interests of both aircraft operators and States alike. It places an obligation on the aircraft operators to pay for costs attributable to the pollution from emissions they have generated, but it requires that those seeking such cost recovery identify the costs concerned and apply the charges collected towards offsetting the emission costs they have incurred.

3.5.3 Taxes, such as fuel taxes, on the other hand offer aviation no guarantee of reasonableness nor equity because there would not normally be a cost relationship. Instead emission taxes would be subject to the uncertainties of political pressures and could differ substantially between States and regions depending on the policies pursued by different governments, sometimes possibly even at different levels (federal, regional and local). Fuel taxes would also lead to inequity between States because with the levy and collection of the tax taking place in the State of departure where the fuel would be uplifted, States overflown would not collect from overflying traffic. Finally, there are serious practical impediments to taxes in the form of fuel taxes because as noted above some 97 percent of bilateral air services agreements registered with ICAO extend the exemption for fuel retained on board provided for in Article 24 of the Chicago Convention to include fuel uplifted by foreign aircraft.

3.5.4 Consequently, of the two approaches charges because of their cost relatedness offer a more efficient and equitable approach to reducing adverse environmental consequences of aircraft engine emissions. This would also be in line with the Organization's proven and tested policy and practice of advocating noise-related charges but not taxes. By taking this approach ICAO would be serving its obligations as a guardian of the interests of international civil aviation while at the same time honouring the international civil aviation community's commitment to carry its share of the costs of protecting the environment. These two objectives would not be served by ICAO supporting a taxation approach. However, charges (or taxes) alone would not suffice. They can only be a means of prompting research and technical developments towards advancing the certification of "cleaner" engines. ICAO can hasten this process by accelerating the development of guidance and assistance in the application of emission-related charges, such as that being carried out by CAEP.

4. REFERENCE TO CHARGES AND TAXES IN ASSEMBLY RESOLUTION A31-11

4.1 Assembly Resolution A31-11 (*Consolidated statement of continuing ICAO policies and practices related to environmental protection)* presently relates to technical, certification and operational measures but not economic instruments. The Assembly may wish to consider expanding the scope of Resolution A31-11 to include a reference to the policy guidance on noise-related charges contained in the Council Statements in Doc 9082/5 and the emission-related levies addressed in the *Council Resolution on Environmental Charges and Taxes*. This could be effected by the addition to Resolution A31-11 of an Appendix such as that presented in Appendix C which is being submitted for the Assembly's consideration. (Resolution A31-11 will be considered as a whole in connection with A32-WP/22).

5. ACTION BY THE ASSEMBLY

5.1 The Assembly is invited to note this report and:

a) review the text in Appendix C suggested for inclusion in the successor to Assembly Resolution A31-11; and

b) offer such comments and advice it considers relevant to the Organization's work with regard to the application of environmental charges and taxes, noting in this context that the Council strongly recommends such levies be in the form of charges rather than taxes.

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APPENDIX A

EXCERPT FROM THE *STATEMENTS BY THE COUNCIL TO CONTRACTING STATES ON CHARGES FOR AIRPORTS AND AIR NAVIGATION SERVICES* (DOC 9082/5)

"Noise-related charges

21. The Council recognizes that although reductions are being achieved in aircraft noise at source, many airports will need to continue the application of noise alleviation or prevention measures. The Council considers that the costs incurred in implementing such measures may, at the discretion of States, be attributed to airports and recovered from the users and that States have the flexibility to decide on the method of cost recovery and charging to be used in the light of local circumstances. In the event that noise-related charges are to be levied the Council recommends that consultations should take place on any items of expenditure to be recovered from users and that the following principles be applied:

i) Noise-related charges should be levied only at airports experiencing noise problems and should be designed to recover no more than the costs applied to their alleviation or prevention.

ii) Any noise-related charges should be associated with the landing fee, possibly by means of surcharges or rebates, and should take into account the noise certification provisions of Annex 16 in respect of aircraft noise levels.

iii) Noise-related charges should be non-discriminatory between users and not be established at such levels as to be prohibitively high for the operation of certain aircraft."

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APPENDIX B

COUNCIL RESOLUTION ON ENVIRONMENTAL CHARGES AND TAXES

Adopted by the Council on 9 December 1996 at the 16th Meeting of the 149th Session

Whereas aircraft engine emissions are contributing to air pollution and to global atmospheric problems such as climate change and depletion of stratospheric ozone, as indicated by recent international scientific assessments, and the scientific community is working towards a better definition of the extent of aviation's impact;

Whereas in recent years there has been increasing recognition by governments of the need for each economic sector to pay the full cost of the environmental damage it causes;

Whereas the 31st Session of the ICAO Assembly in 1995 requested the Council to consider the application of environmental charges or taxes to aviation and report to the next ordinary Session of the Assembly in 1998;

Recognizing that the subject of environmental charges or taxes on air transport has also been raised in other international policy-making bodies, in the context not only of controlling greenhouse gas emissions but also of mobilizing financial resources for sustainable development, and that it is necessary to make clear ICAO's position on environmental charges and taxes at this time;

Noting that ICAO policies make a distinction between a charge and a tax, in that they regard charges as levies to defray the costs of providing facilities and services for civil aviation, whereas taxes are levies to raise general national and local governmental revenues that are applied for non-aviation purposes;

Considering that once aircraft engine emission-related problems are better defined, developments in technology and new approaches to aircraft operations may offer a means of mitigating these problems in the long term;

Having in mind:

a) that ICAO has established emission standards for new aircraft engines and the work programme of the Council's Committee on Aviation Environmental Protection (CAEP) is aimed at addressing emission-related problems and identifying appropriate solutions, taking into account technical feasibility, economic reasonableness and environmental effectiveness;

b) that work on emission-related charges is in progress within CAEP, the results so far indicating that the environmental impact of aircraft emissions needs to be understood and quantified before determining the best method for reducing their impact and that both regulatory measures and charges can provide effective instruments in reducing emission levels, but that it is not possible to make any general conclusion at this time as to which of these is preferable;

c) that Article 15 of the *Convention on International Civil Aviation* contains provisions regarding airport and similar charges, including the principle of non-discrimination, and that ICAO has developed policy guidance for States regarding charges (*Statements by the Council to Contracting States on Charges for Airports and Air Navigation Services*, Doc 9082/4); and

d) that ICAO has developed separate policy guidance to States on taxation (*ICAO's Policies on Taxation in the Field of International Air Transport*, Doc 8632), which recommends *inter alia* the reciprocal exemption from all taxes levied on fuel taken on board by aircraft in connection with international air services, a policy implemented in practice through bilateral air services agreements, and also calls on States to the fullest practicable extent to reduce or eliminate taxes related to the sale or use of international air transport;

The Council

1. *Notes* that the use of levies to reflect the environmental costs associated with air transport is considered desirable by a number of States, while other States do not consider it appropriate in the present circumstances;

2. *Considers* that the development of an internationally agreed environmental charge or tax on air transport that all States would be expected to impose would appear not to be practicable at this time, given the differing views of States and the significant organizational and practical implementation problems that would be likely to arise;

3. *Reaffirms* that ICAO is seeking to identify a rational common basis on which States wishing to introduce environmental levies on air transport could do so;

4. *Strongly recommends* that any environmental levies on air transport which States may introduce should be in the form of charges rather than taxes and that the funds collected should be applied in the first instance to mitigating the environmental impact of aircraft engine emissions, for example to:

a) addressing the specific damage caused by these emissions, if that can be identified;

b) funding scientific research into their environmental impact; or

c) funding research aimed at reducing their environmental impact, through developments in technology and new approaches to aircraft operations;

5. *Urges* States that are considering the introduction of emission-related charges to take into account the non-discrimination principle in Article 15 of the *Convention on International Civil Aviation* and the work in progress within ICAO and, in the meantime, to be guided by the general principles in the *Statements by the Council to Contracting States on Charges for Airports and Air Navigation Services* (Doc 9082/4) and the following principles adapted from those agreed by the 31st Session of the ICAO Assembly:

a) there should be no fiscal aims behind the charges;

b) the charges should be related to costs; and

c) the charges should not discriminate against air transport compared with other modes of transport.

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APPENDIX C

DRAFT APPENDIX H TO ASSEMBLY RESOLUTION A31-11
CONSOLIDATED STATEMENT OF CONTINUING ICAO POLICIES AND PRACTICES RELATED TO ENVIRONMENTAL PROTECTION

ENVIRONMENTAL CHARGES AND TAXES

Whereas in recent years there has been increasing recognition by governments of the need for each economic sector to pay the full cost of the environmental damage it causes and the subject of environmental charges or taxes on air transport has been raised, for example, in the context of controlling greenhouse gas emissions;

Whereas ICAO policies make a distinction between a charge and a tax, in that they regard charges as levies to defray the costs of providing facilities and services for civil aviation, whereas taxes are levies to raise general national and local governmental revenues that are applied for non-aviation purposes;

Whereas Article 15 of the *Convention on International Civil Aviation* contains provisions regarding airport and similar charges, including the principle of non-discrimination, and ICAO has developed policy guidance for States regarding charges (*Statements by the Council to Contracting States on Charges for Airports and Air Navigation Services*, Doc 9082) including specific guidance on noise-related charges;

Whereas ICAO has developed separate policy guidance to States on taxation (*ICAO's Policies on Taxation in the Field of International Air Transport*, Doc 8632), which recommends *inter alia* the reciprocal exemption from all taxes levied on fuel taken on board by aircraft in connection with international air services, a policy implemented in practice through bilateral air services agreements, and also calls on States to the fullest practicable extent to reduce or eliminate taxes related to the sale or use of international air transport;

Welcoming the Council's adoption on 9 December 1996 of a policy statement of an interim nature in the form of a resolution, in order to make ICAO's position clear on emission-related charges and taxes, wherein the Council strongly recommends that any such levies be in the form of charges rather than taxes; and

Noting that the Council has received an initial report from its Committee on Aviation Environmental Protection (CAEP) on possible options regarding emission-related levies (charges or taxes) and has requested CAEP in its further work on this subject to focus on an en-route levy or a fuel levy to address global emissions, taking into account ICAO's policy regarding reciprocal exemption from taxation of aviation fuel, and on an airport levy to address local emissions;

The Assembly:

1. *Requests* the Council to:

   a) ensure that the guidance on noise-related charges contained in Doc 9082 is current and responsive to the requirements of States; and

   b) continue to pursue the question of emission-related levies with a view to reaching an early conclusion on the guidance to be given to States; and

2. *Urges* States to:

   a) follow the current guidance of the Council on both noise-related charges and emission-related levies; and

   b) keep the Council informed of significant developments in this field.

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