



ASSEMBLY – 35TH SESSION

EXECUTIVE COMMITTEE

Agenda Item 15: Environmental protection

ISSUES RELATED TO CHARGES FOR AIRCRAFT ENGINE EMISSIONS IMPOSED ON DEVELOPING COUNTRIES

(Presented by 20² member States of the Latin American Civil Aviation Commission)

SUMMARY

This work document highlights some technical and legal matters concerning the application of charges for aircraft engine emissions, focusing on the implications of this type of charge to developing countries, and stressing the need for the Assembly to take a formal stance, opposing any application of charges related to CO₂ emissions.

1. INTRODUCTION

1.1 In the 1980s, scientific evidence connecting greenhouse-effect gas emissions from human activities to global climate changes started to generate public concern. In this regard, ICAO (International Civil Aviation Organization) has been studying mechanisms to reduce the emissions of these gases in aviation.

1.2 Action taken by ICAO include the initiatives established in Appendix I to the Resolution of the 33th Assembly (A33-7) which requests the Council to “continue developing guidance for the States on the application of measures based on market criteria, with a view to reducing or limiting the impact of aircraft engine emissions on the environment,...”. Resolution A33-7 also urges the Council to assess the costs and benefits of the various alternatives.

1.3 In order to comply with the aforementioned resolution, the CAEP (Committee on Aviation Environmental Protection) conducted studies on market-based measures, which constitute political tools for attaining environmental objectives at a lower cost and in a more flexible manner as compared to traditional control measures.

1.4 Within this context and based on CO₂ studies focused, initially, on the analysis of the following measures: trading of emissions, voluntary measures and application of charges.

¹ English and Spanish versions provided by LACAC

² Argentina, Aruba, Bolivia, Brazil, Chile, Colombia, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela

1.5 The analysis made by the FESG (*Forecasting and Economic Analysis Support Group*), presented at the fifth plenary meeting of CAEP, in January 2001, revealed that the application of charges was the measure with the worst cost-benefit ratio.

1.6 Therefore, and based on the studies conducted by said Committee, the 33rd Assembly recognised that:

- a) The trading of emissions was a more effective and less costly measure to limit or reduce CO₂ emissions in the long term.
- b) As a first step, voluntary measures can be applied in the short term.
- c) The application of charges on emissions, even though it has the worst cost-benefit ratio, would require more in-depth studies.

2. APPLICATION OF CHARGES

2.1 The issue of the application of charges on emissions, specifically CO₂-related, entails both technical and legal problems which need to be duly assessed and resolved before starting to use this charging mechanism. The following should be noted:

- a) Air transportation is not the main cause of climate change, since it only accounts for 3,5% of global emissions that cause the greenhouse effect (IPCC – *Intergovernmental Panel on Climate Change*, 2000); therefore, it is important to examine the contribution of other industrial segments.
- b) The current ICAO policy concerning the application of charges, based on Doc 9082/6 – Airports and Air Navigation Services, is related to airports and air navigation services, and is not applicable to emissions, since it was not developed for that purpose. CO₂ emissions have a unique characteristic, namely, that they are of a global nature and generate a long-term impact which makes them inconsistent with the current ICAO policy dealing with domestic rates.
- c) In 1996, the ICAO Council recommended that emission-related charges, based on costs for reducing environmental impact of aircraft engine emissions, be made in the form of charges rather than rates, provided these costs were properly identified and directly allocated to air transport.
- d) The FESG assessed the external costs of CO₂ emissions and submitted the results during the CAEP Management Group meeting, held in 2003, in Orlando, United States. Values obtained ranged from US\$ 2 to US\$ 127 per ton of CO₂, reflecting inaccuracies regarding the effects of this gas and the different methodologies of economic analysis.
- e) Due to the significant technical complexity involved, no aircraft efficiency parameter has been developed yet to support the estimate of engine gas emission charges, based on optimum operation with different power ratings, flight ranges, and operating phases.

- f) Airlines continue to suffer the effects of the attacks of September 11, the Iraq war and the SARS epidemics, events which caused a reduction in air traffic and, consequently, of engine emissions. Estimates by the ICAO Secretariat, submitted to CAEP/6 meeting (2004), indicate that, in 2003, global traffic dropped by about 1%, while, for the regional segment, the reduction was of 3%. Thus, in addition to the technical difficulties for identifying the costs related to the emissions themselves, at this moment, it would not be appropriate to introduce any type of emission charge.

3. **IMPLICATIONS OF CHARGES FOR DEVELOPING COUNTRIES**

3.1 The application of emission charges has several negative implications for developing countries. These charges will bring about an increase in the operating cost of airlines, which will surely be passed on to the prices for air services (passengers and cargo), resulting in a drop in demand. It is also important to note that aircraft with more modern technology and lower emission levels have a very high cost and do not represent an economically feasible alternative to replace older aircraft.

3.2 The resulting increase in the operating costs of airlines from developing countries has an impact on their financial viability. It may also be noted that carriers in developing countries, unlike what happens with companies in developed States, do not receive government subsidies, and, besides, carry smaller amounts of cargo and passengers.

3.3 The foregoing confirms the fact that the situation in developing countries is not consistent with the application of emission charges. In the meantime, other situations are worth considering:

- a) While developed countries are responsible for most of the greenhouse-effect gas emissions of aeronautical origin, developing countries account for less than 5% of the number of aircraft movements in the world.
- b) According to the Convention – United Nations Framework Convention for Climate Change (UNFCCC), article 3, paragraph 1, states that “the parties must protect the climate system for the sake of present and future generations of mankind, based on equity and in keeping with their common, more differentiated, responsibilities and their respective capabilities. Consequently, the Parties must take the initiative in the struggle against climate change and its effects.” Furthermore, article 3, paragraph 2, recommends that the specific needs and special circumstances of developing countries be taken into consideration.
- c) Regarding the Kyoto Protocol, there is no request for developing countries to limit or reduce their emissions. Article 2, paragraph 2, stipulates that only those countries listed in its Annex I must limit or reduce greenhouse-effect gas emissions which are not under the control of the Montreal Protocol, under the sponsorship of ICAO. In turn, article 3, paragraph 2, states that, up until 2005, each country included in Annex I must show progress in their commitments under this Protocol. It should be noted that, although the Kyoto Protocol has been approved by more than one hundred ICAO contracting States, the two countries that are mainly responsible for CO₂ emissions in the world (53,5% of the global total), United States and the Russian Federation, have not ratified it yet.

3.4 Both documents, the UNFCCC and the Kyoto Protocol, exonerate developing countries from any obligation regarding the reduction of greenhouse-effect gases, and rather assign the responsibility for such reductions to developed countries.

4. **ACTION BY THE ASSEMBLY**

4.1 In view of the above, it is suggested that the Assembly take a formal stance against any form of domestic, regional or global charges to developing countries, related with CO₂ emissions.

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