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# ASSEMBLY — 36TH SESSION

#### **EXECUTIVE COMMITTEE**

**Agenda Item 17: Environmental protection** 

# ICAO GUIDELINES FOR DEALING WITH THE ADVERSE ENVIRONMENTAL EFFECTS OF AIRCRAFT ENGINE EMISSIONS

(Presented by the 22\* Member States of the Latin American Civil Aviation Commission)

## **EXECUTIVE SUMMARY**

Given the responsibility of States to mitigate the harmful environmental effects of civil aviation and the parallel challenge of finding appropriate means to do so in the context of the growth of this activity, the LACAC member States recognise that ICAO has made important progress in limiting or reducing the emissions produced by international aviation. They also consider that it is both necessary and possible to make additional progress by applying duly integrated measures.

These measures should include the dissemination of, and timely access to, technological developments in goods and services applicable to civil aviation; use of more appropriate operating procedures; appropriate air traffic organisation and management and use of airport planning mechanisms; land use planning and management; and use of market measures to control or reduce emissions. All of these measures should be integrated into specific ICAO guidelines and be part of an acceptable global plan that would include determining the geographic scope to which plans for trade in emission rights should be restricted.

# **Action:** The Assembly is invited to:

- a) recognise the significant progress made by ICAO, as mentioned in paragraphs 2.3 and 2.4;
- b) support, as part of its future efforts, the activities mentioned in paragraph 2.5;
- c) recognise the different geographic and economic realities of all member States, as well as the right of individual States to decide the best way to manage their respective environmental programmes in regard to the emissions of their aircraft;
- d) support emission rights trading guidelines, provided the inclusion of airlines belonging to third States is done by mutual agreement and, for the moment, in the case of regional or sub-regional initiatives, with the observance of the principle of common but differentiated responsibilities deriving from the obligations agreed upon in the Kyoto Protocol and within the framework of the UNFCCC and the applicable provisions of the relevant decisions approved by the ICAO Assembly; and

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<sup>&</sup>lt;sup>1</sup> English and Spanish versions provided by LACAC

Argentina, Aruba (Netherlands), Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela.

e) acknowledge that any mechanism taxing international air transportation and creating an additional cost to users of the service, should, in order to be fair and equitable, bear in mind the existence of alternate means of transportation available to those users and which satisfy their transportation needs reasonably.	
Strategic Objectives:	This working paper relates to Strategic Objective C ( <i>Environmental Protection – Minimize the adverse effect of global civil aviation on the environment</i> ).
Financial implications:	Not applicable.
References:	

### 1. **BACKGROUND**

- 1.1 Environmental protection is undoubtedly a civil and governmental priority. Everyone perceives the harmful effects on the earth's atmosphere and climate of certain substances and gases produced by human activities. The civil aviation community is well aware of this fact and makes vigorous efforts to respond within its sphere of activity to the needs and demands created by this general concern. The fact that environmental protection is one of ICAO strategic objectives and that it is continuously monitored by the Contracting States to the Chicago Convention bears this out.
- 1.2 International aviation emissions are excluded from the provisions of the Kyoto Protocol, which requires that its signatory states work through ICAO to reduce such emissions. In specifying this, the signatories to the Protocol recognised ICAO as the appropriate forum for reaching this target, considering that the Organization bears direct responsibility for promoting the safe, orderly and efficient development of civil aviation.

## 2. **DISCUSSION**

- 2.1 Although all societies share the responsibility for environmental protection, the most harmful effects were undeniably produced by the most developed nations with high consumption patterns. That is why the latter were given a more active role to play in repairing the climate system, as can be seen in the provisions of the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, which firmly enshrined the principle of "common but differentiated responsibilities."
- Regions of the world where there are efficient alternate means of transportation to civil aviation can partially replace, or apply a restrictive mechanism to, air communication in order to reduce gas emissions and improve their environment. That option is not universally applicable, however, since in the case of States that are land-locked, are very extensive or have areas that are not easily accessible, for example, air transportation is the only means of communication and is, therefore, irreplaceable and key to maintaining a desirable rate of economic growth. This means that the unilateral establishment of emission rights and emission trading schemes could force certain economies to make adjustments they are not capable of handling. Imposing restrictions on these countries, then, would mean restricting or impeding their capacity to fly, thereby contravening the Chicago Convention.
- 2.3 Over the past triennium, ICAO has made important advances in environmental protection. The most noteworthy are those that were conceived to limit or reduce international aviation

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emissions through the application of voluntary measures, an aspect on which the Council was able to adopt a text on policies applicable to emission rights using a dual approach. One of these mechanisms was designed to preserve local air quality (LAQ), with a view to its subsequent conversion into a guide to ICAO provisions on airport rights and air navigation services; the other, to serve as guidance for trade in emission rights. Several issues remaining after the discussion require further consideration:

 a) the first refers to the geographic scope of the market measures and rates that could be considered economically punitive in the application of emission trading mechanisms that could affect those who operate aircraft belonging to individuals or organisations from ICAO third Contracting States;

the second aspect concerns the unilateral, unconsented application of these measures to airlines of third States; and

the imposition of charges on individuals or corporations that operate airlines coming from States that, within the framework of the UNFCCC and the Kyoto Protocol, and in accordance with applicable international legislation, have no obligation to reduce emissions.

- 2.4 The States belonging to LACAC wish to emphasise that ICAO has been working on technologically viable options to limit or reduce aircraft emissions and achieve the greatest possible environmental benefit in each case. This is reflected in the application of best operating procedures, as shown in the case of continuous descent approaches (CDA), the encouragement to apply the CNS/ATM concept, and the reduced vertical separation minima (RVSM). Furthermore, better airport planning; more rational land use planning and market criteria-based measures to control, reduce and mitigate the emissions produced by all civil aviation structures and equipment are contributing to attain ICAO environmental goals.
- 2.5 LACAC is aware of the fact that other appropriate technical, operational and scientific answers are needed from ICAO, in addition to these significant developments, in order to achieve a more ambitious reduction of aircraft engine emissions, which involves minimising their effects on the climate. In this connection, it would be appropriate to point out that CAEP pays special attention to, and monitors, the efforts to investigate the efficiency of the combustion process and to evaluate new options for alternate fuels, as well as the careful analysis of the environmental effects of noise-emission interdependence and compromises that normally emerge when designing the new technologies to the used in the future fleet of aircraft and their engines, approaches that deserve the strongest and most enthusiastic support.

## 3. **CONCLUSION**

- 3.1 LACAC member States consider that, in establishing its policies and guidelines for limiting, reducing or mitigating the environmental impact of aircraft engine emissions, ICAO should bear the following in mind:
  - a) the different geographic and economic realities of member States, particularly of developing countries whose growth depends mainly on their air transport;
  - b) the needs and demands of air navigation plans and pre-established environmental policies, as well as those deriving from their legal and regulatory framework, in order to facilitate national application of the policies and guidelines ICAO progressively introduces and to

ensure that the two processes converge with the targets, limits, objectives and systems existing in each participating State without conflict; and

- c) the need to implement emission trading systems in a cooperative and gradual manner, based on the principle of mutual agreement and full observation of the criterion of common but differentiated responsibilities enshrined in the multilateral instruments used by ICAO for reference purposes, such as the Kyoto Protocol and the UNFCCC process. The participating States should study the merit of implementing these mechanisms in an increasing manner, perhaps starting by signing bilateral, regional or sub-regional agreements to be subsequently expanded to become worldwide, when there is a possibility of weighing the experience gained as to advantages and requirements.
- 3.2 To conclude, one of the best ways to build confidence and to resolve issues deriving from the logical uncertainty created by the implementation of the new system, is to offer greater scientific and economic support for the practical advantages and disadvantages of applying the emission rights mechanism to civil aviation--particularly, the cause-and-effect relationship that can be established between the aforementioned mechanism and the identifiable changes that can be verified, such as the decisions of civil aviation companies with regard to investment policies that incorporate new equipment and aircraft in their aircraft fleet.