

INTERNATIONAL CIVIL AVIATION ORGANIZATION

**EIGHTH MEETING OF CIVIL AVIATION AUTHORITIES OF THE SAM REGION
(RAAC/8)**

(Buenos Aires, Argentina, 23 - 25 April 2003)

Agenda Item 4: Regional Air Navigation Plan – Transition to the CNS/ATM systems

BALANCED PRINCIPLE IN CNS/ATM IMPLEMENTATION IN THE REGION

(presented by Colombia)

Summary

This working paper submits the balanced principle to the consideration of civil aviation authorities, so that guides can be provided for the action to be carried out by ICAO in relation to CNS/ATM implementation in the CAR/SAM Regions, in order to achieve its balanced introduction consistent with State fleets and overall economic conditions of the sector.

1. Introduction

1.1 The development of satellite and data communication technologies applied to air navigation is almost a reality today. Modern aircraft are already equipped with sophisticated systems that make it possible to benefit from CNS/ATM systems. However, there are airlines in the CAR/SAM Regions that still have fleets that have not been updated to operate under the navigation conditions required in this new environment.

1.2 The ICAO Lima Office has been advancing efforts aimed at the harmonious and homogeneous adoption by States of these new technologies in the airspaces under their responsibility. It also conducts studies to prepare business cases and economic assessments of the economic benefits to be derived by the region from these technologies.

1.3 Many studies have been carried out in the States to determine the economic feasibility of said implementation. In this respect, Colombia, with the support of the TDA (Trade Development Agency), is conducting a feasibility study for the implementation of the new systems, which includes a study of the operators.

1.4 This implies being fully aware of the reality, not only of international aviation, but also of national aviation and its local operation, since the navigational environment must be homogeneous and beneficial to all users, both domestic and international.

2. **Analysis**

2.1 The CAR/SAM Regions and, in particular, the community of Andean countries and the Caribbean, because of their central position with respect to the North/South America flow, encompass in their airspace most of the traffic of the Americas and of the States of this sub-region. As a result, airspaces are congested during peak hours due to northbound and southbound flights and, many times, the fleets operating within the region must fly at levels that are not optimal for their performance.

2.2 To give an idea, last year, Colombia was crossed by 48,000 international overflights above FL 290, and 61,000 domestic operations were carried out in the same airspace strip, where aircraft equipped with modern technology coexist with aircraft that are in the process of being updated.

2.3 The Andean region and the Caribbean are crossed all over and constitute the area with the greatest aeronautical activity. However, they host the Andean mountain range and major weather phenomena (hurricanes, volcano eruptions, etc.), which reduce the usable airspace and make it necessary to conduct a serious study of the impact of orographic and meteorological conditions on the use of many of the CNS/ATM concepts.

2.4 In view of the above, and in our case, the transition to the CNS/ATM systems is not a decision that may be taken without a thorough assessment of economic considerations. Consequently, a balanced principle is required for their implementation, taking into account the impact that such decisions will have on regional airline fleets.

2.5 The balanced principle implies that ICAO, in its efforts to further the transition to the CNS/ATM systems, will implement it, not only on the basis of airspace safety studies or the existence of a reliable technological infrastructure in our States, but mainly on the basis of a process of coexistence of the current and the proposed system, and gradual transition from the former to the latter. This should allow the fleets in the region to adjust and plan for the replacement of their avionics, according to the financial conditions of the sector, so as to take better advantage of the new systems within a balanced and equitable process, with a time horizon that is consistent with the overall economy of the sector.

3. **Suggested action**

3.1 The meeting is invited to:

- a) take note of the information provided in this working paper;
- b) request ICAO that it consider the balanced principle for the introduction of CNS/ATM systems in the region, incorporating it into the studies to be conducted, its efforts and into the regional air navigation plan.
- c) to request ICAO to promote economic implementation studies, taking into account the fleets that operate at a regional or domestic level.

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