

ELEVENTH AIR NAVIGATION CONFERENCE

Montreal, 22 September to 3 October 2003

Agenda Item 1 Introduction and assessment of a global air traffic management (ATM) : operational concept

UNITED STATES SUPPORT OF THE ICAO GLOBAL AIR TRAFFIC MANAGEMENT (ATM) OPERATIONAL CONCEPT

(Presented by the United States)

SUMMARY

This paper presents the United States' view on the global ATM operational concept, notes the consistency with the RTCA National Airspace System (NAS) Concept of Operation and Vision for the Future of Aviation approved by the RTCA Free Flight Steering Committee, expresses appreciation of the progress made by the Air Traffic Management Concept Panel (ATMCP) and recommends additional work to support the general use of the concept.

Action by the conference is in paragraph 3.

1. INTRODUCTION

1.1 The United States Federal Aviation Administration (FAA) has worked closely with European and other member States in the ATM Operational Concept Panel (ATMCP) to develop the global operational concept presented in AN-Conf/11-WP/4 by the ICAO Secretariat. The document in AN-Conf/11-WP/4 has been reviewed by the panel, and the Air Navigation Commission, taking into account comments received from States, and is being presented to the Conference for assessment.

2. DISCUSSION

2.1 The global concept is a view of air traffic management (ATM) in 2025 that draws upon established concept work done within the United States, European Organisation for the Safety of Air Navigation (EUROCONTROL) and its member States, and other regions. This resultant global concept takes many of the ATM performance goals expressed in those concepts, extends those goals to 2025, and places the operational improvements into a context which supports modernization across all regions and traffic situations. The global concept describes a future ATM system that:

- a) keeps safety first, with systems safety management as a foundation;
- b) focuses on the delivery of service with an associated performance orientation;
- c) recognizes that ATM is a set of interconnected operational processes that are at a minimum gate-to-gate in scope;
- d) promotes the concept of ATM based on collaborative decision-making (CDM); and
- e) has at its core the efficient use of information supported by a system-wide information management (SWIM) philosophy.

2.2 The RTCA National Airspace System (NAS) Concept of Operations and Vision for the Future of Aviation serves as a guiding document for the United States. Although the NAS Concept of Operations is both nearer term and more detailed, it is closely aligned to the global concept in vision and scope and incorporates some aspects of this global concept in the most recent update. There are no fundamental concept differences between the global concept and the RTCA NAS Concept of Operations.

2.3 The development of this initial global concept is completed. However, it is expected that this document will be subject to periodic updates to reflect changes in business climates and the potential use of technologies not foreseen to date. Further, although the framework for change has been established by the concept, additional work is required on the establishment and measurement of performance based on ATM delivery of service, the process for developing requirements from the concept, more detailed and tailored description of the concept through the development of supporting scenarios, and the development of transition paths to reach the vision

3. ACTION BY THE CONFERENCE

3.1 The conference is invited to agree on the following recommendation:

**Recommendation 1/ — United States Support of the ICAO Global
ATM Operational Concept**

That ICAO:

- a) endorse the global ATM operational concept defined by the ATMCP and presented in AN-Conf/11-WP/4;
- b) organize work to progress the supporting aspects of the concept including:
 - 1) fuller development of the performance concept;
 - 2) processes for using the concept in the development of SARPs;
 - 3) delivery of concept scenarios to support tailoring of the concept for use in State and regional planning;
 - 4) development of operational transitions; and
 - 5) maintenance of the concept through periodic review and updates.
- c) encourage States to use the concept in support of their individual and regional planning.

— END —