

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**
1.2: Enabling concepts in support of the global ATM operational concept

**CIRCULAR ON
AIRBORNE SEPARATION ASSURANCE SYSTEM (ASAS)**

(Presented by the Secretariat)

1. INTRODUCTION

1.1 Since the mid-1990s, research and development (R&D) organizations in the United States Federal Aviation Administration (FAA) and European Organisation for the Safety of Air Navigation (EUROCONTROL) have propelled the airborne separation assurance system (ASAS)-like activities, including operational trials, in several States and ICAO regions. The scope of these activities ranges from research to the pre-operational implementation of ASAS applications. The four categories of ASAS applications — traffic situational awareness, airborne spacing, airborne separation, airborne self separation — have all been considered by various projects.

1.2 To increase the potential for an early implementation, particular attention is currently given by several States to airborne traffic situational awareness applications and airborne spacing applications. The idea is to develop an incremental approach towards the operational implementation of some ASAS applications and to provide some early benefits to airspace users. Airborne separation applications and airborne self-separation applications are also being investigated, mainly by research and development centres in several States. Various perspectives are considered: concepts of use, operational and technical considerations, and algorithms for conflict detection and resolution.

1.3 At the request of the Air Navigation Commission, the attached draft circular on ASAS has been prepared by the Secretariat with the assistance of the Surveillance and Conflict Resolution Systems Panel (SCRSP). The attached draft has not yet gone through the approval cycle and it is subject to further revision.

1.4 The information contained in the attached draft circular reflects the experience gained by several States and international organizations. Chiefly, the FAA and EUROCONTROL coordinated United States and European air traffic management (ATM) R&D activities in a number of areas, including ASAS. Original contributions from these sources relating to ASAS include Principles of Operations for the Use of ASAS (PO-ASAS), which significantly influenced this Circular.

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