

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
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IATA POSITION ON THE IMPLEMENTATION OF ADS-B

(Presented by the International Air Transport Association (IATA))

SUMMARY

IATA recognizes automatic dependent surveillance — broadcast (ADS-B) as a prime enabler for the future operational concept as well as new air traffic management (ATM) applications, which could bring substantial safety and capacity benefits.

To achieve short and longer-term benefits, IATA supports the cost-effective early implementation of ADS-B.

ADS-B implementation worldwide must be harmonized, compatible and interoperable in respect of operational procedures, supporting data link and ATM applications.

IATA supports 1090 extended squitter as the single, interoperable link for the foreseeable future.

IATA recognizes that a supporting data link offering greater performance may be required in the future. Selection of this link must be made on the basis of technical and operational performance requirements and return on investment.

1. INTRODUCTION

1.1 Traditional improvements to the existing air traffic management (ATM) system are reaching their limits and by 2008 to 2010 will no longer provide sufficient capacity to meet increasing demand in the most congested areas of the world. Further enhancements will only be possible through the introduction of new operational ATM concepts. One of the prime enablers of such concepts is automatic dependent surveillance — broadcast (ADS-B).

2. ISSUE

2.1 No adequate ground-based surveillance is available in many areas of the world. As an option to replacing existing enroute surveillance systems or where there is no radar, ADS-B in conjunction with new ATM applications can provide a cost effective surveillance solution.

2.2 By improving cockpit situational awareness, ADS-B can provide important safety benefits both in the air and on the airport surface and improved airspace management.

2.3 Extensive tests have demonstrated the feasibility and potential for capacity enhancement of ADS-B applications.

2.4 European Organisation for the Safety of Air Navigation (EUROCONTROL), the Federal Aviation Administration (FAA) and International Air Transport Association (IATA) have reached agreement on the supporting data link for the initial applications. 1090 extended squitter (ES) satisfies the requirements posed by the initial applications and is available and mature, enabling early implementation. Boeing, Airbus and CANSO support implementation of ADS-B using 1090 ES.

2.5 Definition of initial and follow-on applications, in the form of coherent packages, is well advanced and is being coordinated between the FAA and Eurocontrol, ensuring interoperability on the applications level.

2.6 IATA member airlines have expressed their desire to use ADS-B at the earliest possible time.

3. ACTION BY THE CONFERENCE

3.1 In the interests of increasing safety, capacity, efficiency and environmental benefits, the conference is invited to:

- a) recognize ADS-B as a prime enabler of the future operational concept bringing substantial safety and capacity benefits;
- b) support the cost-effective early implementation of ADS-B noting the early achievable safety and economic benefits from new ATM applications;

- c) urge States to ensure that implementation of ADS-B is harmonized, compatible and interoperable with respect to operational procedures, supporting data link and ATM applications;
- d) recommend to ICAO that 1090 ES be established as the single, interoperable link in present regional transition plans;
- e) note that further work on ADS-B requirements is necessary to determine whether a link with greater performance will be required; and
- f) note that selection of a future link should be made purely on the basis of technical and operational performance requirements and return on investment.

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