



International Civil Aviation Organization

**THE FOURTH MEETING OF ADS-B STUDY AND
IMPLEMENTATION TASK FORCE (ADS-B SITF/4)**

Nadi, Fiji, 26-28 October 2005

**Agenda Item 13: Discuss issues observed during the trial and implementation of
ADS-B**

**ISSUES RAISED BY CNS/MET SUB-GROUP OF
APANPIRG ON ADS-B**

(Presented by the Secretariat)

SUMMARY

This working paper provides several issues on Automatic Dependent Surveillance- Broadcast (ADS-B) discussed at the Ninth Meeting of CNS/MET Sub-group of APANPIRG for review by this meeting.

MET/JPN AIRBUS/STRATEGY

1. INTRODUCTION

1.1 The Ninth Meeting of the CNS/MET Sub-group of Asia Pacific Air Navigation Planning and Implementation Regional Group held on 11-15 July 2005 discussed several issues regarding ADS-B.

2. DISCUSSION

2.1 Use of Mode S extended squitter (ES) in automatic MET air-reporting

2.1.1 The meeting was informed that, arising from APANPIRG Conclusion 14/44, the METLINKSG had been invited to consider the application of the Mode-S datalink in automatic air-reporting as an alternative to ADS over areas covered by surveillance radars and to consider ways to facilitate its implementation in the ASIA/PAC Region. This task was to address the problem of the lack of automated aircraft observations of MET elements – wind, temperature, turbulence (if available) and humidity (if available) – from ADS over areas covered by surveillance radars in the ASIA/PAC Region. In the 8th Meeting of the METLINKSG held during 1-4 February 2005, it was agreed that where Mode S was available there was a requirement for it to be considered for automatic MET air-reporting. The group agreed that the changes to Annex 3 to include the use of Mode S in automatic MET air-reporting should be submitted as a part of draft Amendment 74 following confirmation that the appropriate changes to the requirements for the MET data blocks of Mode S messages had been agreed.

2.1.2 On the other hand, the meeting noted that there was currently no intent to implement Mode S in the near term in the Region. Subject to confirmation, the meeting was advised that both SSR Mode S radar and 1090 MHz extended squitter (ES) ADS-B could be used for downlinking the contents of the MET data blocks. It therefore appeared that in the ASIA/PAC Region, ADS-B (using

1090 MHz ES) would be more likely to become widely implemented, and for that reason, it might be more suitable for automated MET air-reporting. The meeting agreed that it had always been the intent of using ADS-B for automated MET air-reporting but in view of the need to confirm the technical details on implementation, the meeting formulated the following Decision:

Decision 9/41 – Use of 1090 MHz extended squitter (ES) ADS-B for automatic air-reporting

That, the Automatic Dependent Surveillance-Broadcast (ADS-B) Study and Implementation Task Force be requested to study the use of 1090 MHz extended squitter (ES) ADS-B for automatic MET air-reporting in the ASIA/PAC Region.

2.2 Airbus view regarding SCRSP/1

2.2.1 The meeting noted a decision made by the 3rd meeting the ADS-B SITF regarding an Airbus view on the proposed amendment to Annex 10 -Aeronautical Telecommunications, Volume III — Communication Systems Part I- Digital Data Communication System Appendix of Chapter 5 Mode S Data Link Surveillance by the first meeting of the Surveillance and Conflict Resolution Systems Panel (SCRSP/1). Airbus stated that the amendment requiring RTCA DO-260A MOPS for air-to-air ASAS applications is considered unnecessary. The Task Force member from Japan was requested to prepare an information paper for consideration by the CNS/MET/SG/9 meeting on this issue based on the result of the outcome WG meetings of SCRSP held in May 2005.

2.2.2 Japan presented an information paper on the result of discussion of two working group meetings of SCRSP held in end of May 2005. It was informed that the working group meeting unable to reach an conclusion in this regard and the question had been referred to a technical group meeting to be held in July 2005 and Working Group of whole meeting to be held in October. Japan was requested to follow up the result of discussion of these two meetings and bring the clarification back to the ADS-B SITF meeting for consideration.

2.3 Regional Strategies for GNSS navigation, ATN implementation and Air-ground data links

2.3.1 CNS/MET SG/9 endorsed draft communications Strategies for aeronautical communications including **Strategy for implementation of the air-Ground data link in the Asia and Pacific Regions** formulated by CNS/MET Air-Ground Data Link Study Task Force meeting in May 2005 and **Strategy for Implementation of ATN in the ASIA/PAC Region** formulated by ATN Transition Task Force meeting in April 2005. The meeting also updated the **Strategy for the implementation of GNSS Navigation Capability in the ASIA/PAC region**. All strategies endorsed by CNS/METE Sub-group have been adopted by APANPIRG/16 and attached to its report. However, no regional strategy on surveillance system has been developed so far. The meeting is invited to consider developing such strategy by ADS-B Study and Implementation Task Force and have it listed in the Tasks list.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) discuss the issue of use of Mode S extended squitter (ES) in automatic MET air-reporting and provide feed back to CNS/MEG Sub-group;
- b) note the progress made by member of Japan regarding the clarification on the Airbus view; and
- c) propose to develop regional strategy for surveillance system as one of the tasks.
