



*International Civil Aviation Organization*

**Automatic Dependent Surveillance – Broadcast (ADS-B)  
Study and Implementation Task Force**

Brisbane, Australia, 24-26 March 2003

---

**Agenda Item: 1b) Review of the TORs and tasks**

**TERMS OF REFERENCE OF  
THE ADS-B TASK FORCE AND KEY PRIORITY**

**SUMMARY**

This paper presents the Terms of Reference and task of the ADS-B study and implementation Task Force and new key priority identified by APANPIRG/13 for CMS/ATM implementation for review.

(Presented by the Secretariat)

**1. Introduction**

1.1 The Thirteenth Meeting of APANPIRG held in Bangkok from 9 to 13 September 2002 adopted the following Conclusion:

Conclusion 13/19 – ADS-B Study and Implementation Task Force

That,

- a) a multidisciplinary Task Force be established consisting of members from Australia, China, Hong Kong China, Fiji, India, Japan, Mongolia, Singapore, United States, IATA, IFALPA, IFATCA and SITA with the Term of Reference provided in Appendix G to the report on Agenda Item 2.2; and
- b) the result of the study to be presented to APANPIRG/14 meeting in 2003.

**2. Discussion**

2.1 In light of the substantial developments and operational trials taking place, and the safety and economic benefits of ADS-B, APANPIRG/13 recognized that a new task for ADS-B needed to be added to the list of the Key Priorities of the CNS/ATM implementation in the Asia/Pacific Region and formulated the following Conclusion:

**Conclusion 13/41 - Inclusion of ADS-B on the list of Key Priorities of the CNS/ATM Implementation in the Asia/Pacific Region**

That, a task on ADS-B be included on the list of Key Priorities of the CNS/ATM Implementation in the Asia/Pacific Region.

2.2 The Terms of Reference, task and methodology for the ADS-B Study and Implementation Task Force adopted by APANPIRG/13 is provided in Attachment 1 to this paper. The tasks given to the Task Force in summary include:

- identify near term and long term benefits of ADS-B;
- recommend the most suitable technology for selection as a preferred link for implementation in the near term;
- recommend the most suitable technology for selection as a preferred link for implementation in the long term;
- develop a recommended implementation plan including a target date.

2.3 The added new key priority identified by APANPIRG/13 is provided in Attachment 2 to this paper. It requires to validate the selection of an ADS-B link in the Asia/Pacific by conducting a cost benefit study. In summary it includes:

- the cost impact on avionics of mandatory carriage of the ADS-B link selected;
- identify specific benefits;
- determine a date for the mandatory carriage of the selected ADS-B link

2.4 The meeting may wish to note that Air Navigation Commission in November 2002 and ICAO Council in February 2003 have reviewed the report of APANPIRG/13. The Air Navigation Commission, appreciating the efforts of APANPIRG in establishing a multidisciplinary task force to conduct a study for the selection of ADS-B link for use in the Asia/Pacific regions invited the Secretary General to monitor task force developments and encourage States to participate in studies to select an ADS-B link, taking into account cost/benefit analyses.

**3. Action by the Meeting**

3.1 The meeting is expected to review the Terms of Reference and tasks of the ADS-B Study and Implementation Task Force

3.2 The meeting is invited to note that ADS-B Study and Implementation Task Force is required to present its study results to:

APANPIRG ATS/AIS/SAR/SG	19-23 May 2003
APANPIRG CNS/MET/SG	15-21 July 2003
APANPIRG/14	4-8 August 2003

-----

**ADS-B STUDY AND IMPLEMENTATION TASK FORCE**

**Terms of Reference**

Conduct a study for the selection of ADS-B link for use in the Asia/Pacific Region. The work to be addressed should include:

- review the available link technology\* for ADS-B and recommend the most suitable technology for selection as a preferred link for implementation in the Asia/Pacific Region in the near term and long term taking into account cost /benefit studies;
- identify and quantify near term and long term benefits of ADS-B;
- develop a recommended implementation plan including a recommended target date of implementation taking into account availability of SARPs and readiness of airspace users and ATS providers for a coordinated implementation of service and benefits.

**Note:**

1. The Task Force, while undertaking the task, should take into account of the work being undertaken by OPLINK, SAS and AMC Panels with a view to avoid any duplication.
2. The Task Force should complete its work and present the result to the ATS/AIS/ SAR/ SG, CNS/MET/ SG and to the APANPIRG/14 meetings to be held in 2003.
3. In assessing the readiness of airspace users, take into account business aviation usage

\* The link to be considered are SSR-Mode S ES1090 MHz, VDL Mode 4 and UAT.

**Key Priorities for CNS/ATM Implementation in the Asia/Pacific Region**

<b>No.</b>	<b>Key Priority</b>	<b>Description</b>	<b>Milestone</b>	<b>Sub-group</b>	<b>Status</b>
14	Data – link Communications	<ol style="list-style-type: none"> <li>1. Implementation of CPDLC (with HF and/or SATCOM back-up) in oceanic or remote airspace.</li> <li>2. AIDC to be introduced where ATS automated systems are implemented.</li> </ol>	<p style="text-align: center;">2002</p> <p style="text-align: center;">2005</p>	<p style="text-align: center;">All</p> <p style="text-align: center;">All</p>	<p>Sub – Groups to review progress of implementation. Implementation focus and time table need to be developed.</p>
15	ADS-B	<p>Validate the selection of an ADS-B link in the Asia/Pacific by conducting a cost benefit study including</p> <ol style="list-style-type: none"> <li>a) the cost impact on avionics of mandatory carriage of the ADS-B link selected</li> <li>b) identified and quantified specific benefits such as reduced separation standards, optimum altitude.</li> <li>c) note the development of separation standards.</li> <li>d) determined a date for the mandatory carriage of the selected ADS-B link by aircraft in the Asia Pacific again.</li> <li>e) encourage standardization of the selected ADS-B link with transmit only systems that include integrated GPS capability.</li> </ol>	<p style="text-align: center;">APANPIRG/14</p>	<p style="text-align: center;">All</p> <p style="text-align: center;">ATS/AIS/SAR</p> <p style="text-align: center;">ATS/AIS/SAR</p> <p style="text-align: center;">CNS/MET</p>	