



*International Civil Aviation Organization*

**FIFTH MEETING OF THE SOUTHEAST ASIA  
SUB-REGIONAL ADS-B IMPLEMENTATION  
WORKING GROUP (SEA ADS-B WG/5)**



Jakarta, Indonesia, 21 – 22 January 2010

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**Agenda Item 4:** Updating States' activities and issues on regional trials

**AUSTRALIAN ADS-B UPDATE**

(Presented by Airservices Australia)

**SUMMARY**

The purpose of this IP is to inform SEA ADS-B WG/5 of the significant progress achieved in the Australian ADS-B program during the past months.

**1 UAP Status**

1.1 The ADS-B Upper Airspace Project (UAP) has been operationally commissioned and air traffic controllers are now authorised to provide 5 NM separation services using ADS-B data from all operational sites. Coverage is currently available across the whole continent from 27 sites.

1.2 The transition to this final stage was completed on 19 December 2009. The following NOTAM was issued :

C8395/09 NOTAMN  
Q) YUXX/QXXXX/IV/BO/E/000/999/  
A) YMMM/YBBB  
B) 0912181400 C) 1001310600 EST  
E) SURVEILLANCE SEPARATION AVBL OUTSIDE RADAR COVERAGE IN  
BRISBANE  
AND MELBOURNE FIR DUE ADS-B UPPER AIRSPACE PROGRAM STAGE 3  
IMPLEMENTATION  
COVERAGE DETAILS AVAILABLE AT  
[WWW.AIRSERVICESAUSTRALIA.COM/PROJECTSSERVICES/PROJECTS/ADS-B/UAP.ASP](http://WWW.AIRSERVICESAUSTRALIA.COM/PROJECTSSERVICES/PROJECTS/ADS-B/UAP.ASP)

1.3 It is planned that the last ADS-B ground station of UAP Phase 1 at Broken Hill will be commissioned in a few weeks followed by the first ground station of Phase 2 at Lord Howe Island in April 2010.

1.4 An additional 16 sites are planned to be installed this year as part of UAP Phase 2 to provide ADS-B coverage within existing SSR coverage to provide a backup and to improve tracking performance. This will extend ADS-B coverage to all en-route sectors.

1.5 Aircraft avionics are still being assessed and approved for operational use. ADS-B data from non-approved aircraft is filtered out at each site. Currently over 1000 airframes are approved and receiving the operational and safety benefits of ADS-B services in Australia. The statistics for November 2009 are :

- 72.54 % of all scheduled international flights in Australia were by ADS-B approved aircraft.
- 24.65% of all domestic scheduled flights were by ADS-B approved aircraft.
- 22.23% of ALL FLIGHTS, with a flight plan, in Australia were by ADS-B approved aircraft.

1.6 The following diagram shows all sites of UAP Phase 1. All sites are now operational delivering data suitable for ADS-B separation except for Broken Hill.

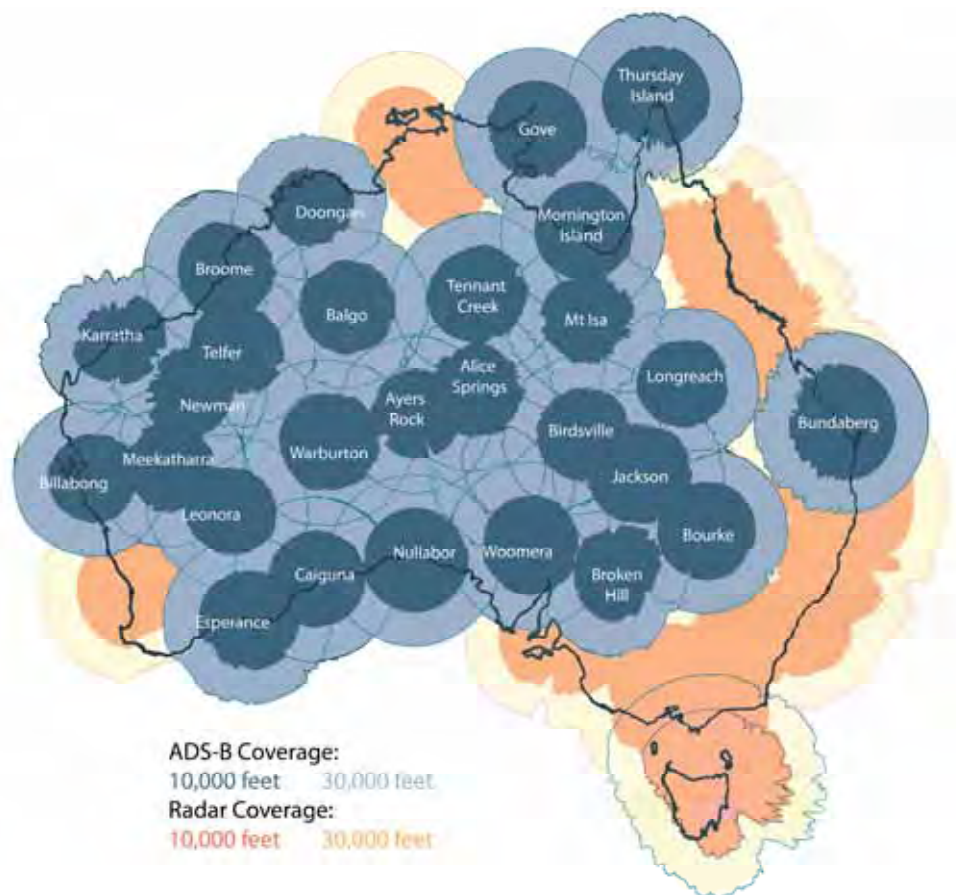


Figure 1 : ADS-B predicted coverage from 28 ADS-B Ground stations

1.7 The following diagram shows ADS-B data recorded from UAP sites during one day in January 2010 overlaid with ADS-B data from the yet to be commissioned TASWAM system in Tasmania.

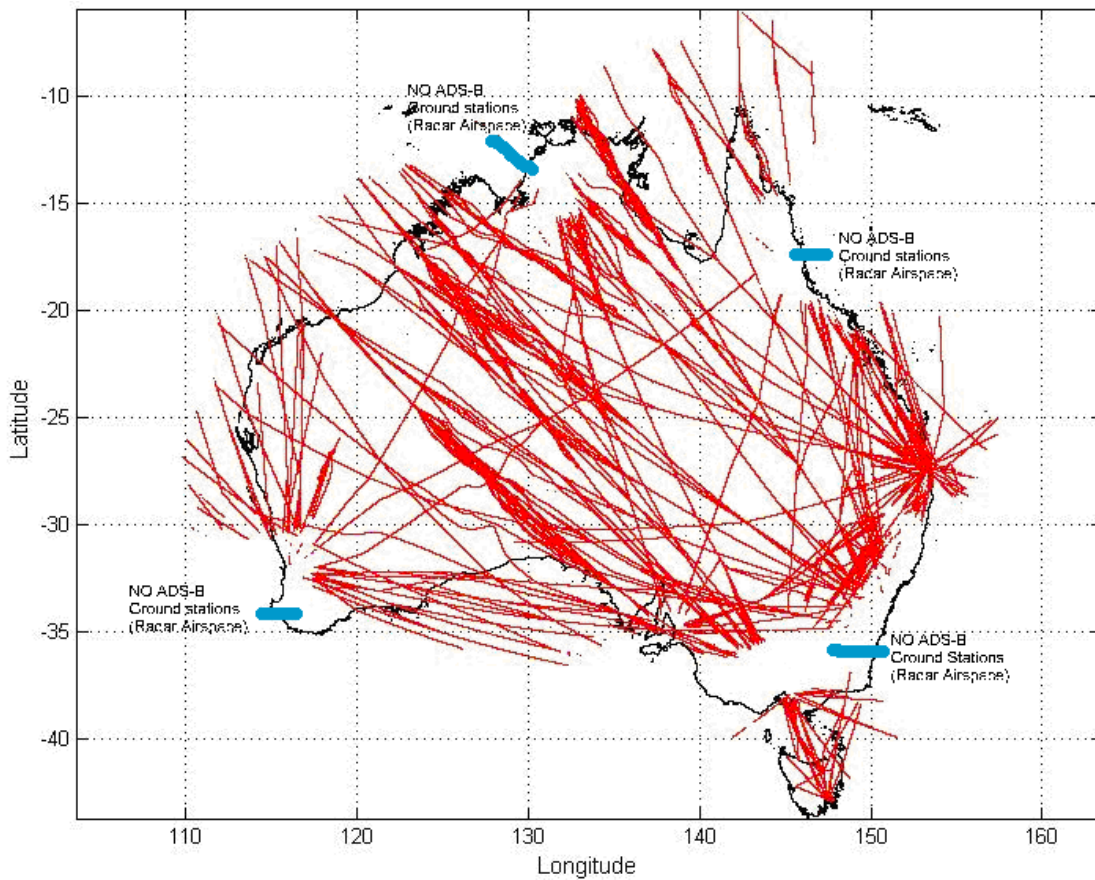


Figure 2 : ADS-B data captured on 10/1/10 from 28 ADS-B Ground stations plus TASWAM

1.8 Operational feedback since commissioning has been extremely positive.

## 2 TAS WAM

2.1 The testing of the Tasmanian Wide Area Multilateration system has been completed and a safety case recommending commissioning has been transmitted to the regulator. This system includes 14 receivers each of which is ADS-B capable. It is expected to become operational early 2010.

## 3 RVSM monitoring and ADS-B

3.1 Research continues between Australia and the FAA in the use of ADS-B data for RVSM Monitoring. Whilst the work is not yet complete, initial results are very promising.

## 4 Conclusions

4.1 The meeting is invited to consider the UAP progress.

4.2 The meeting is invited to note that the continued progress of ADS-B implementation in Australia is being well received by both ATC and approved Aircraft Operators.

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