



International Civil Aviation Organization

**THE TENTH MEETING OF AUTOMATIC
DEPENDENT SURVEILLANCE –
BROADCAST (ADS-B) STUDY AND
IMPLEMENTATION TASK FORCE
(ADS-B SITF/10)**



Singapore, 26 -29 April 2011

Agenda Item 7: Regulatory Authorities Working Group

**BRIEF UPDATE ON AUSTRALIAN ADS-B REGULATION AND
THE NEED FOR COOPERATION ACROSS APAC STATE REGULATORY AUTHORITIES
WITH AIRCRAFT APPROVALS AND EQUIPAGE COMPLIANCE MATTERS**

(Presented by Australia)

SUMMARY

This WP is to provide the ADS-B SITF/10 Meeting with a brief update on ADS-B regulation in Australia. WP also underlines the need for cooperation between APAC State Regulators in carrying out the functions of aircraft operational approvals and compliance with ADS-B mandates and equipage standards established by the APAC States.

1. CURRENT ADS-B REGULATORY STATUS IN AUSTRALIA

1.1 The existing CASA rules and standards for ADS-B have not changed since being amended in early 2009. At that time, CASA established the upper airspace mandate for the carriage of ADS-B equipage for operations in the Australian upper airspace from 12 December 2013 and also revised the standards for aircraft equipment to take account of Conclusions taken at the SITF/8 Meeting regarding requirements for the GNSS SA Aware feature. It also added AMC20-24 as an equivalent technical standard for compliance with the Australian ADS-B avionics standards.

1.2 CASA considers that the Australian ADS-B rules continue to remain fully in conformity with all ADS-B SITF and APANPIRG Conclusions concerning ADS-B mandates and equipage and also with the standards of the relevant ICAO Annex 10 SARPs.

1.3 As the Australian rules and equipage standards (and those of other APAC States now establishing their ADS-B regulatory requirements) are applicable to foreign registered aircraft, it is appropriate for ICAO APAC States and SITF Members to raise any issues that they have with the rules at the SITF Meetings so that they can be considered by the SITF and the APANPIRG. It will remain as CASA's continuing objective to adopt future conclusions of the SITF that receive the endorsement of APANPIRG, as well as future ICAO SARPs, subject to consideration of Australian safety requirements.

2. ACTION ARISING FROM THE REGULATORS WORKSHOP AT SITF/9 MEETING IN JAKARTA

2.1 At the ICAO APAC ADS-B SITF/9 Meeting held in Jakarta in August last year it was agreed that individual aircraft operational approvals for ADS-B equipage and crew capability should follow the established procedures for other operational approvals (e.g. Ops Specs) such as RVSM and PBN. It was decided under Conclusion 9/5 of SITF/9 that the State of Registry is responsible to undertake the operational and airworthiness approval of their aircraft to receive ADS-B services in any country.

2.2 As a result, CASA subsequently wrote to APAC States informing them that, before any further aircraft of their State would receive ADS-B based separation services in Australia, the aircraft operator must first seek ADS-B approval for the aircraft from their own State Regulator.

2.3 Accordingly, any direct requests received from CASA or Airservices Australia from foreign aircraft operators for ADS-B services in Australia are in the first instance being referred to the relevant State regulator. That action has already occurred with several States and CASA acknowledges the cooperation of those States in already providing prior ADS-B approvals. CASA appreciates that some States may not have had experience in ADS-B equipage approvals and in that situation we would on request be pleased to provide advice and assistance with information on equipage compliance, based on the experience and approvals that have been made over previous years.

3. AUSTRALIAN UPPER AIRSPACE MANDATE FROM 12 DECEMBER 2013

3.1 The Australian ADS-B rule mandates the carriage of serviceable ADS-B equipment for flight at/above FL290 from the date of 12 December 2013. Until that date, carriage of ADS-B equipment remains voluntary and the ANSP's present mixed mode of ATC separation with some aircraft equipped and some not equipped will remain. After the date of the mandate, CASA will assume that aircraft operating into Australia at any altitude comply with the ADS-B regulatory standards unless specifically advised otherwise by foreign operators or State regulatory authorities, or by Airservices Australia reporting non-fitted aircraft or its ATC system detecting non-compliant ADS-B transmissions. Non-fitted or non-complying aircraft detected will be the subject of advice by CASA to the relevant State Regulator, who will be cooperatively requested to take appropriate steps for corrective action with their aircraft operators. Until advice is received that such aircraft have been

brought into compliance, the aircraft will be segregated onto a “blacklist” by Airservices Australia, an ADS-B separation service will not be provided and operation of the offending aircraft above FL280 may not be given by ATC for safety or traffic management reasons.

3.2 The Airservices’ ATC system will assume that all aircraft have the approval of their relevant State regulators to receive an ADS-B service. The ATC system will not know whether aircraft have been previously approved or not. Again, the cooperation of APAC State Regulators will be relied upon to ensure prior compliance of the aircraft of their State with operational approvals and ADS-B equipage standards. With the emergence of aircraft ADS-B mandates by other APAC States, a similar process will obviously need to be adopted by all member States for approvals and equipage compliance.

3.3 The CASA ADS-B rule as applied to foreign registered aircraft is made under Civil Aviation Order (CAO) Number 82.5. That CAO places operational conditions on the aircraft operator’s AOC. Should it ultimately become necessary for safety, CASA may consider taking action to place operational limitations on the AOC for safety of flight in Australia until such time that a non-compliant aircraft operator complies with the ADS-B standards. Any such action would normally involve consultation with the relevant regulatory authority of the State of Registration, except where immediate steps were considered necessary to ensure safety.

4. ACTION ON NON-COMPLYING AIRCRAFT TRANSMISSIONS BEFORE 12 DECEMBER 2013

4.1 Airservices Australia informs CASA of occurrences of aircraft, both Australian and foreign registered, that transmit misleading ADS-B data. Generally, Airservices observes these aircraft transmitting incorrect callsigns or aircraft addresses, or transmitting with equipment that is not an approved equipment configuration as defined by the CASA CAO, generally resulting in (which appear as random position track jumps. These non-compliances are in contravention of the CAO. CASA has recently commenced informing relevant State Regulators of the non-complying aircraft and the details of these occurrences and requested that corrective action be undertaken by the operators. (In some cases it is quite likely that the aircraft operators concerned are not even aware of the problem with their ADS-B installation.)

4.2 To comply with the Australian rule, operators of aircraft that have non-approved ADS-B equipment configurations must deactivate transmissions before entry to Australian territorial airspace.

5. CONCLUSION

5.1 Members are invited to note the current situation with ADS-B regulation in Australia.

5.2 Members of APAC Region State Regulatory authorities are invited to consider and discuss the need for a consistent and cooperative regulatory approach by State Regulators to aircraft ADS-B approvals and equipage compliance in the APAC Region.
