



International Civil Aviation Organization

**EIGHTEENTH MEETING OF THE COMMUNICATIONS/NAVIGATION  
AND SURVEILLANCE SUG-GROUP (CNS SG/18) OF APANPIRG**

Asia and Pacific Regional Sub-Office, Beijing, China  
(21 – 25 July 2014)

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**Agenda Item 7: Surveillance**

7.2 Discuss other surveillance related issues

**REGIONAL ADS-B REQUIREMENT FOR NEW AIRCRAFT**

(Presented by Australia)

**SUMMARY**

This paper proposes revised wording for an Asia Pacific ADS-B Forward fitment (new Air Transport aircraft only) commencing in 2018 at minimal cost to operators.

**1. INTRODUCTION**

1.1 This paper proposes revised wording for Asia Pacific ADS-B forward fitment of air transport aircraft with a maximum take-off weight of more than 5,700 kg, commencing in 2018 at minimal cost to operators.

**2. BACKGROUND**

**2.1 SEA/BOB ADS-B WG/9**

The Ninth Meeting of the South East Asia and Bay of Bengal Sub-regional ADS-B Implementation Working Group (SEA/BOB ADS-B WG/9) recommended action on the follow-ups to the Air Navigation AN Conf/12 and endorsed the following draft Conclusion regarding the regional ADS-B OUT forward fit mandate commencing from December 2017.

***Draft Conclusion 13/1 – ADS-B OUT Forward Fit (Proposed by SEA/BOBWG/9)***

*That, States/Administrations in APAC Region mandate that aircraft with an individual certificate of airworthiness first issued on or after 8 January 2017 (two years after the European forward fitment mandate is effective) be equipped with ADS-B avionics compliant with Version 2 ES (equivalent to RTCA DO260B).*

2.2 **ADS-B SITF/13** reviewed the recommended actions on the follow-ups to the Air Navigation AN Conf/12 and decided not endorse the draft Conclusion proposed by the Working Group regarding the regional ADS-B OUT forward fit mandate commencing from December 2017. Instead, States were encouraged to consider cost effectiveness of publishing forward fit and retrofit mandates when planning their transition to ADS-B, and early promulgate their mandates and transition plan for forward fit and retrofit of ADS-B avionics for aircraft in their airspace.

ADS-B SITF/13 did not endorse the draft SEA/BOB conclusion because of concerns raised about the costs that it would bring to the GA fleet in some States.

### 3. DISCUSSION

3.1 There are significant advantages if all **new** transport aircraft in our region equip with ADS-B including :

- Benefits of increased surveillance in areas where there is no radar, increasing efficiency and safety;
- The benefits of surveillance data sharing using ADS-B which does not occur with radar data because of Defence concerns;
- The benefits of ADS-B IN; and
- The benefits of Space based ADS-B reception and possibly Global tracking of airliners using ADS-B OUT technology already installed on many aircraft.

3.2 There are significant advantages for airlines to demand ADS-B capability when purchasing NEW AIRCRAFT. This is likely to be provided at little or possibly no additional cost for many aircraft types (e.g. Boeing & Airbus) if required at initial delivery. If operators choose to wait then they will incur expensive retrofit cost. A forward fit proposal has no cost impact on aircraft already registered.

3.3 Airlines need clear and early guidance about avionics that is required so that these requirements are passed to the suppliers of new aircraft.

3.4 The concerns of ADS-B SITF/13 have been addressed in this proposal because it is proposed that only air transport aircraft with a MTOW of more than 5,700 kg be included. A revised proposal is proposed in the recommendations.

3.5 This proposal would signal to the international community that Asia Pacific is using ADS-B, that Asia Pacific is preparing for widespread ADS-B use (including from space) and could utilize ADS-B for Global tracking if Space Based ADS-B is successful.

3.6 The proposal does not bring significant costs to the airline community.

### 4. ACTION BY THE MEETING

4.1 The meeting is invited to consider a conclusion as follows :

#### ***ADS-B OUT Forward Fit***

*That, States/Administrations in APAC Region mandate that **air transport** aircraft with a maximum take-off weight of more than 5,700 kg and an individual certificate of airworthiness first issued on or after 8 January 2018 (two years after the European forward fitment mandate is effective) be equipped with ADS-B avionics compliant with Version 2 ES (equivalent to RTCA DO260B).*

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