



International Civil Aviation Organization

**THE TENTH MEETING OF THE SOUTH EAST
ASIA AND BAY OF BENGAL SUB-REGIONAL
ADS-B IMPLEMENTATION WORKING GROUP
(SEA/BOB ADS-B WG/10)**



Singapore, 11 - 13 November 2014

Agenda Item 5: Review of TOR of the SEA/BOB ADS-B Working Group

FUTURE FOCUS OF THE WORKING GROUP

(Presented by Singapore)

SUMMARY

This paper proposes the future focus of the Working Group.

1. Introduction

1.1 Currently the terms of reference for the Working Group are to focus on the development of the terms of co-operation and an implementation plan, and the coordination of the implementation of the plan. The terms of reference are shown in **Annex A**.

2. Discussion

2.1 To date, many states in this region have either implemented ADS-B or have commenced their implementation of ADS-B on their premises. However, the progress of regional collaboration is rather slow. Since its establishment seven years ago, the Working Group has identified at least eight regional collaboration projects. Among these projects, so far only Australia and Indonesia, Hong Kong and China, Indonesia and Singapore, and Singapore and Vietnam have signed their ADS-B collaboration agreements and implemented then collaboration projects.

2.2 In view of the slow collaboration progress and the rapid implementation of ADS-B, more issues related to the implementation and operations might have surfaced. For this reason, this working group can become a useful forum for States to share their issues and potentially seek solutions. Below are some of the issues that might be of interests to the members of the Working Group.

Slow response on regional collaboration

2.3 Some States which desire to share ADS-B data might have faced various difficulties such as political challenges, costs, ATC system readiness for ADS-B processing, lack of communication between the ANSPs. The working group may gather such difficulties and assist states in resolving them.

Performance Monitoring

2.4 States and regions are increasingly expected to monitor the performance of their CNS/ATM facilities including ADS-B. The working group may consider sharing of performance data and monitoring the following performance parameters:

- a) Probability of detection for ADS-B station;
- b) Range of ADS-B station;
- c) Abnormal behavior of avionics

Proposed standards for Performance Based Communications and Surveillance (PBCS)

2.5 ICAO Oplink Panel is developing the concept of PBCS. ADS-B is likely to be included in the PBCS in future. Based on the experience gained, the working group can look into establishing a list of Required Surveillance Performance (RSP) specifications for the ADS-B. States and the region could then monitor the performance of the ADS-B facilities against the establish RSP specifications.

Exploration of application of new ADS-B related technologies

2.6 There are new ADS-B related technologies emerging. The most prominent one would be space-based ADS-B. The Working Group could explore the use of space-based ADS-B in our environment such as surveillance gap filling and backing up ground ADS-B stations.

Existing gaps in ADS-B standards

2.7 Currently, there are combinations with various types of communication means such as ADS-B with CPDLC and ADS-B with SATCOMM Voice that may be available for operational use, but no separation minimum has been established for such combinations. The Working Group may consider the studying and recommending such separation minimum.

3. Action by the Meeting

3.1 The meeting is invited to discuss the future focus of the Working Group.

Annex A**SOUTHEAST ASIA AND BAY OF BENGAL SUB-REGIONAL ADS-B IMPLEMENTATION WORKING GROUP**

Terms of Reference

APANPIRG18 Conclusion 18/38 agreed to the establishment of a sub-regional ADS-B implementation Working Group in the South-East Asia area (SEA ADS-B WG) by the end 2007 to develop the terms of cooperation and an implementation plan for near-term ADS-B applications in the sub-region.

APANPIRG/22 Decision22/34 agreed to rename the Southeast Asia Sub-regional ADS-B Implementation Working Group to “South East Asia and Bay of Bengal Sub-regional ADS-B Implementation Working Group” and tasked the new Working Group to develop a revised Terms of Cooperation and work programme in the sub-regions.

The outcome of the ADS-B Working Group will report to APANPIRG through the ADS-B Study and Implementation Task Force.

The SEA/BOB ADS-B WG shall

(a) Develop Terms of Co-operation which will include :

- establishing model documents for possible use by States when :
 - i. Agreeing to share ADS-B data, and DCPC (such as VHF radio voice communication) capability between adjoining States for various ADS-B applications (including a sample letter of agreement); or
 - ii. Establishing ADS-B avionics fitment mandates
- identifying optimum coverage for ADS-B ground stations and associated VHF radio voice communication in the sub-regional FIR boundary areas.

(b) Develop an implementation plan for near term ADS-B application which will delivery efficient airspace and increased safety on a regional basis that include :

- schedule and priority dates to bring into effect ADS-B based services taking into account;
 - i. Timing of any equipage mandates.
 - ii. Timing of any ATC automation upgrades to support ADS-B.
 - iii. Timing of commissioning of any ADS-B data and associated VHF radio voice communication facilities.
- consideration of major traffic flows

(c) Coordination for implementation of the plan

Composition: The Group will be composed of experts nominated by States in the Sub-region including: Australia, Bangladesh, Brunei Darussalam, China, Hong Kong China Cambodia, India, Indonesia, Malaysia, Maldives, Myanmar, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, Vietnam, IATA and CANSO.

Reporting: The Group will present its report to ADS-B Study and Implementation Task Force.
