



International Civil Aviation Organization

**SIXTH MEETING OF THE SOUTHEAST ASIA
SUB-REGIONAL ADS-B IMPLEMENTATION
WORKING GROUP (SEA ADS-B WG/6)**



Singapore, 24 - 25 February 2011

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- Agenda Item 5: Review of sub-regional implementation plan**
- **Near-term implementation plan, including operational plan**

**REVIEW OF SEA AND SA SUB-REGIONAL
ADS-B IMPLEMENTATION PROJECTS**

(Presented by the Secretariat)

SUMMARY

This paper presented the reviews of SEA and SA Sub-regional ADS-B Implementation Projects as outcome of ADS-B SITF/8 Meeting.

1. INTRODUCTION

1.1 In order to progress or identify new ADS-B implementation projects at sub-regional level, the ad hoc working groups were established during the Eighth Meeting of ADS-B SITF to develop proposals for sub-regional implementation plans for South East Asia, Bay of Bengal and South Asia and Pacific sub-regions.

2. DISCUSSION

2.1 The outcome of the discussions on the sub-regional ADS-B implementation projects from Bay of Bengal/South Asia (SA) and South East Asia (SEA) ad hoc working groups at the ADS-B SITF/8 meeting is provided in the **Attachment** to this paper.

2.2 Some recommendations were discussed at the SA Ad Hoc Working Group including installation of an ADS-B ground station at Port Blair as an initial phase which will considerably lead to enhanced safety and increased efficiency at intersection points between parallel and crossing ATS routes.

2.3 The outcome of discussions at ADS-B SITF/8 meeting could be served as basis for further discussions on the sub-regional near-term implementation plan.

3. ACTION BY THE MEETING

3.1 The meeting is invited to make reference to the attached information.

Report of the Bay of Bengal/South Asia Group

1 The members of the Group are:

- a) India
- b) Malaysia
- c) Pakistan
- d) Singapore
- e) Thailand
- f) CANSO
- g) IATA
- h) SITA

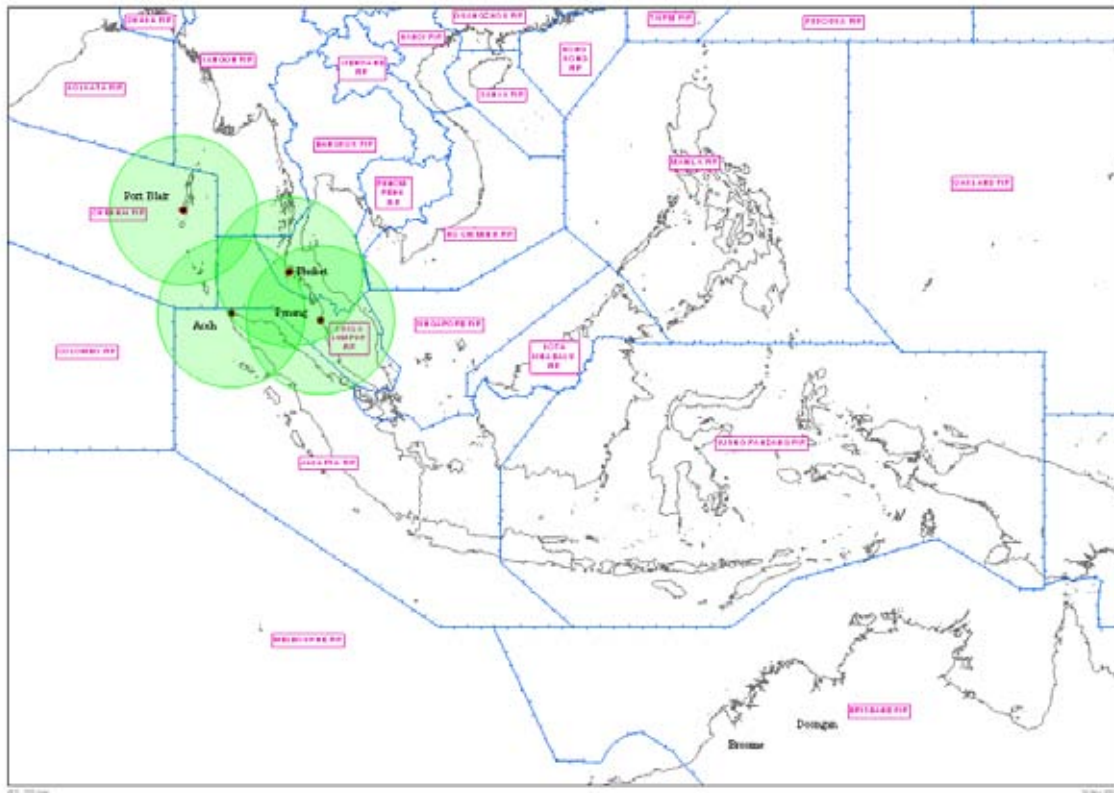
2 India informed that ADS-C services are provided in Chennai and Calcutta FIRs . In view of the next generation of alternate surveillance technology currently available (ADS-B) and the continual benefits the technology offers, it is strongly recommended that India should carry out a study and install ADS-B stations at appropriate locations in the Bay of Bengal area to provide full and seamless radar-like coverage to enhance safety and improve efficiency for air traffic services.

3 India expressed concern that without the participation of Myanmar in the regional ADS-B implementation plan, there will be pockets of airspace without surveillance.

4 It is recommended that the installation of ADS –B ground station at Port Blair as an initial phase will considerably lead to enhanced safety and increased efficiency at intersection points between parallel and crossing ATS routes.

5 Pakistan informed the Group that there are plans to replace the current radar facilities with a new ATM system. ADS-B ground stations will be established in the areas not covered by radar and these ADS-B ground stations will also be the back-up for the new ATM system.

6 Malaysia informed the Group that the major portion of the Bay of Bengal area within the Kuala Lumpur FIR is covered by the Langkawi radar.



Report of the South East Asia Group:

The South East Asia Group focused on the near term implementation of the following projects that were identified in the last task force meeting.

Project 1 – ADS-B Data Sharing Between Indonesia And Australia

Indonesia and Australia will share data from the following stations:

Phase 1a (by 2010)

- Saumlaki ADS-B (Indonesia) (Installed)
- Merauke ADS-B (Indonesia) (Installed)
- Thursday Island ADS-B (Australia) (Installed)
- Gove ADS-B (Australia) (to be installed by Sep 2009)

Data sharing agreement would be signed by Sep 2009.

Phase 1b (Tentatively after 2012)

- Kintamani - Bali (Indonesia) (Installed)
- Waingapu ADS-B (Indonesia) (Installed)
- Kupang ADS-B (Indonesia) (Installed)
- Darwin ADS-B (Australia)
- Doongan ADS-B (Australia) (Installed by end 2009)
- Broome ADS-B (Australia) (Installed)

Project 2 – ADS-B Data Sharing In South China Sea

Under the near term implementation plan, Indonesia, Singapore and Vietnam would share the ADS-B data from the following stations:

- Singapore ADS-B (Singapore provide data to Indonesia) (Install by Oct 2009)
- Natuna ADS-B (Indonesia provide data to Singapore) (Installed)
- Matak ADS-B (Indonesia provide data to Singapore) (Installed)
- Con Son ADS-B (Vietnam provide data to Singapore) (Installed by 2010)

Indonesia and Vietnam agreed to consider Singapore's request to provide VHF radio communication services (DCPC) from the following stations to Singapore. This is to enable implementation of radar-like separations in the non-radar areas within the Singapore FIR. In reply to Vietnam's query, Singapore confirmed the need for VHF radio communication services from Con Son to serve a new sector adjacent Ho Chi Minh FIR.

- Natuna VHF (Indonesia install for Singapore) (Installed by Nov 2010)
- Matak VHF (Indonesia install for Singapore) (Installed by Nov 2010)
- Con Son VHF (Vietnam install for Singapore) (Installed by 2010)

ADS-B Data sharing and DCPC services agreement between Singapore and Indonesia would be signed by Sep 2009.
ADS-B Data sharing and DCPC services agreement between Singapore and Vietnam would be signed by Mar 2010.

States are urged to explore the possibility of covering the remaining surveillance gaps in the South China Sea as discussed in previous SEA ADS-B WG meetings for implementation in future. The group also encourages The Philippines to install an ADS-B station in its southern part of Palawan to provide surveillance coverage beyond its FIR and to share the ADS-B data from the station with the neighbouring states to enhance safety.

Project 3 – ADS-B data sharing between Indonesia and Malaysia

Indonesia would share the ADS-B data from Aceh with Malaysia. The station is already installed. Malaysia and Indonesia will discuss the technical requirements and the data sharing agreement.

Project 4 – ADS-B data sharing between Cambodia, Thailand and Vietnam

Cambodia requested ADS-B data sharing from Thailand and Vietnam

In principle, Vietnam is willing to share ADS-B data with Cambodia. The area of Vietnam's FIR near Cambodia is already covered by radar. Hence Vietnam requested Cambodia to initial meeting to discuss with Vietnam, its need of ADS-B data.

Thailand said that currently, it does not have any ADS-B station that covers Cambodia. It invited Cambodia to initiate its discussion on data sharing between Thailand and Cambodia.

Others

ADS-B SITF/8
Appendix K to the Report

China and Hong Kong China indicated their interest to join the SEA WG as the ADS-B implementation in South East Asia such as L642 and M771 will involve them.

