



*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 4: Updating States' activities and mandates issued**

**UPDATE ADS-B IMPLEMENTATION IN INDONESIA**

(Presented by Indonesia)

**SUMMARY**

This paper presents the update development of ADS-B in Indonesia.

**1. INTRODUCTION**

1.1 The Republic of Indonesia is a largest archipelagic country in the world with 15,000 islands spreading over areas of 5,100km east to west and 1,800 km north to south.

1.2 Air transport is playing very important role in connecting island and city to support socioeconomic development in Indonesia, so the goverment pay a great attention in air transport development.

1.3 There are 2 Flight Information Region (FIR) in Indonesia airspace. Makassar FIR for airspace in Eastern part of Indonesia and Jakarta FIR for airspace in Western part of Indonesia (see attachment).

1.4 Indonesia's Adjacent FIR are Melbourne FIR, Brisbane FIR, Port Moreby FIR, Oakland FIR, Manila FIR, Kota Kinabalu FIR, Singapore FIR, Kualalumpur FIR, Colombo FIR, and Chennai FIR.

**2. ATM INFRASTRUCTURE**

2.1 DGCA-Indonesia has installed 30 ADS-B Groundstations system, 21 ADS-B Groundstation installed in Makassar FIR and 9 ADS-B Groundstation installed in Jakarta FIR.

2.2 The 21 ADS-B Ground Stations in Makassar FIR have been connected to ATC system in MAATS-Makassar and 9 ADS-B Ground Station in Jakarta FIR have been connected to RCMS and Emergency JAATS equipment in Jakarta.

2.3 Until this time, ADS-B only use for ATC Situational Awareness and as a complement of the radar surveillance in the blank spot area, while waiting for the ratification of the regulations.

2.4 Indonesia has implemented an ADS-B data sharing program between Indonesia and Australia. The shared site in Indonesia are Merauke, Saumlaki, Kintamani, and Kupang, whereas the shared site in Australia are Thursday Island, Gove, Broome, and Doongan. (see attachment). Waingapu (Indonesia) will be shared in the next phase.

2.5 Letter of Operational Agreement on ADS-B data sharing program between Indonesia and Singapore already signed by both parties in 22<sup>nd</sup> December, 2010. Now, we are working to implement the agreement. The shared site from Indonesia to Singapore are Natuna and Matak.

2.6 In order to meet the military and national security requirement, Indonesia has developed an ADS-B filtering data system to use in ADS-B data sharing program with Australia and Singapore. The filter will be a gateway and filtering tools for ADS-B data exchange.

### **3. NEXT IMPROVEMENTS PLAN**

3.1 DGCA has a plan to build a new JAATS (Jakarta Automated Air Traffic Service) within this year. This new system will be named JATMS (Jakarta Air Traffic Management System). Development of the JATMS's building is still on going until end of 2011.

3.2 While waiting for development of the JATMS, Indonesia has built an Emergency JAATS system to be a backup system in case of JAATS's failure.

3.3 JATMS will be able to process data from Radar (SSR/MSSR/PSR), ADS-B, Surface Movement Surveillance, SITA/ARINC gateway, ATN, AIDC, Weather Observation system, and new flight plan format 2012.

3.4 JATMS in Jakarta will be a new system providing advanced and modern functionalities such as mode S processing, ADS-B, ADS-C, CPDLC functions, AIDC exchanges with adjacent centres, weather observation system, new flight plan format 2012, being a back-up centre in case of future national contingency plan (upper airspace of MAATS would be transferred to the JATMS), etc.

### **4. ACTION BY MEETING**

4.1 The Meeting is invited to note the contents of this information paper.

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ATTACHMENT

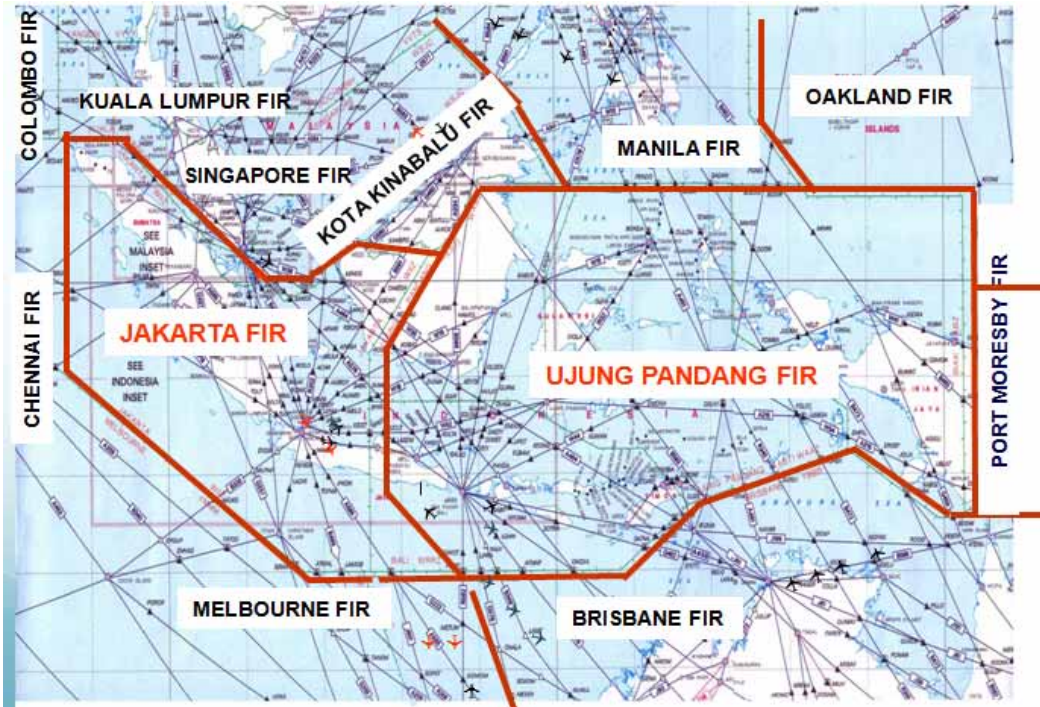


Figure 1 Jakarta and Ujungpandang/Makassar FIR (Indonesia)

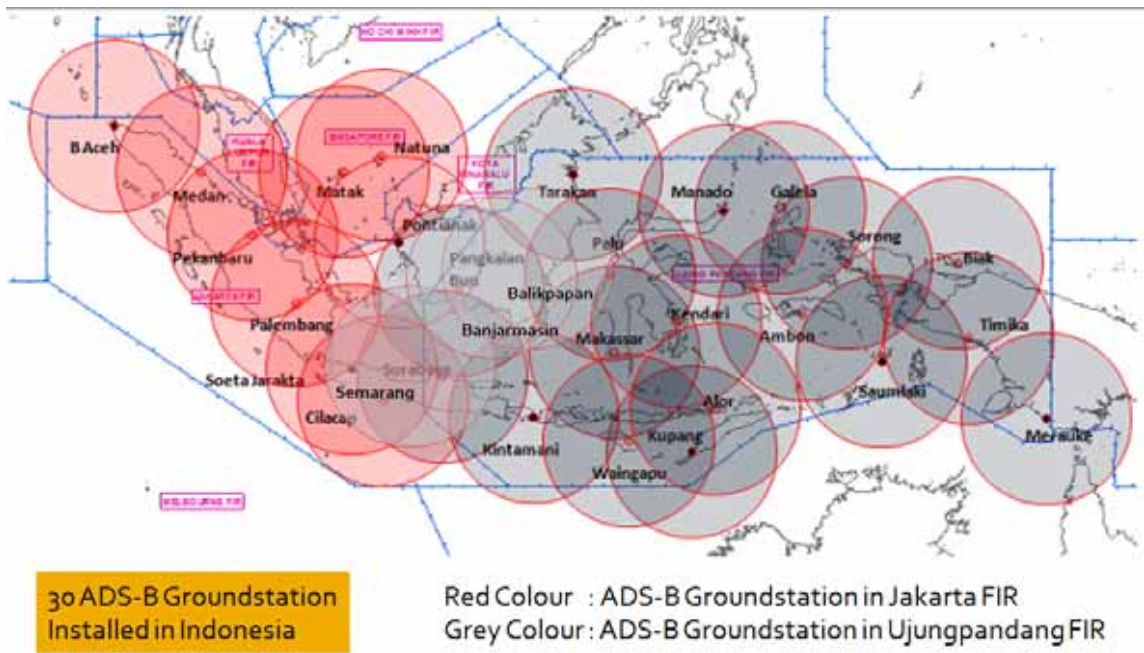


Figure 2 . Installation of ADS-B Ground Station at 30 locations in 2010

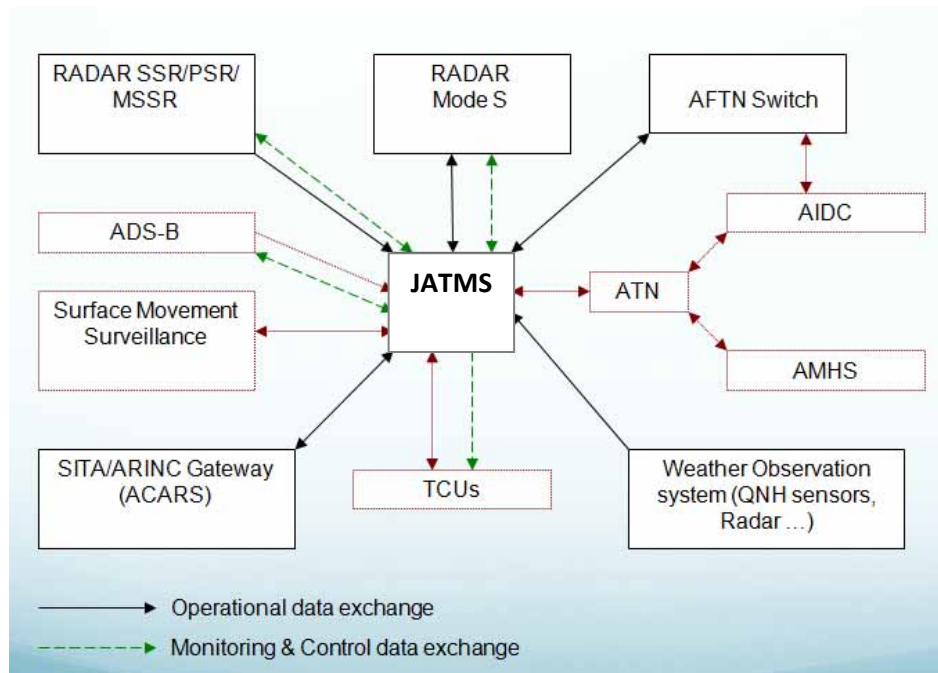


Figure 3. Interface requirement of JATMS Implementation

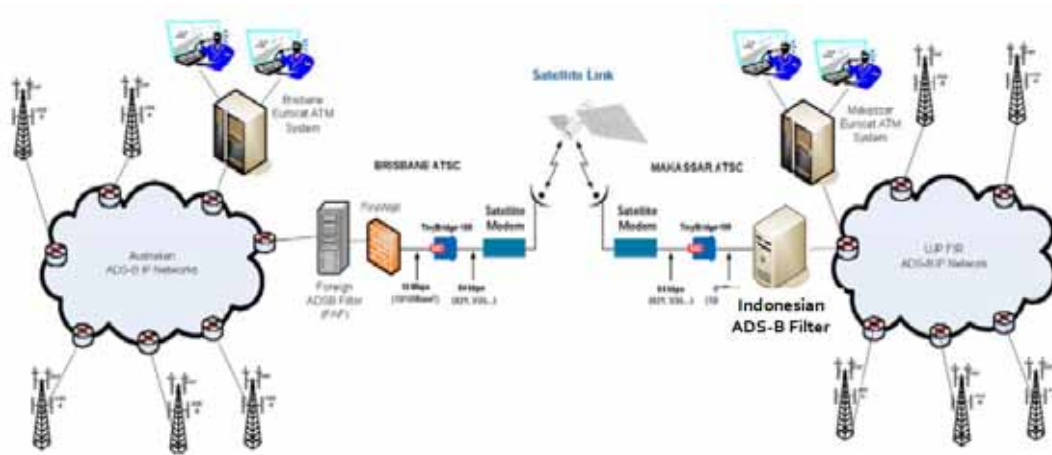


Figure 4. ADS-B data sharing network between Indonesia and Australia.