



International Civil Aviation Organization

**The Twenty-Second Meeting of the Southeast Asia ATM Coordination Group (SEACG/22)**

Bangkok, Thailand, 09-12 March 2015

**Agenda Item 4: Implementation of CNS/ATM Systems**

**ADS-B DATA SHARING BETWEEN  
INDONESIA, AUSTRALIA AND SINGAPORE**

(Presented by INDONESIA)

**SUMMARY**

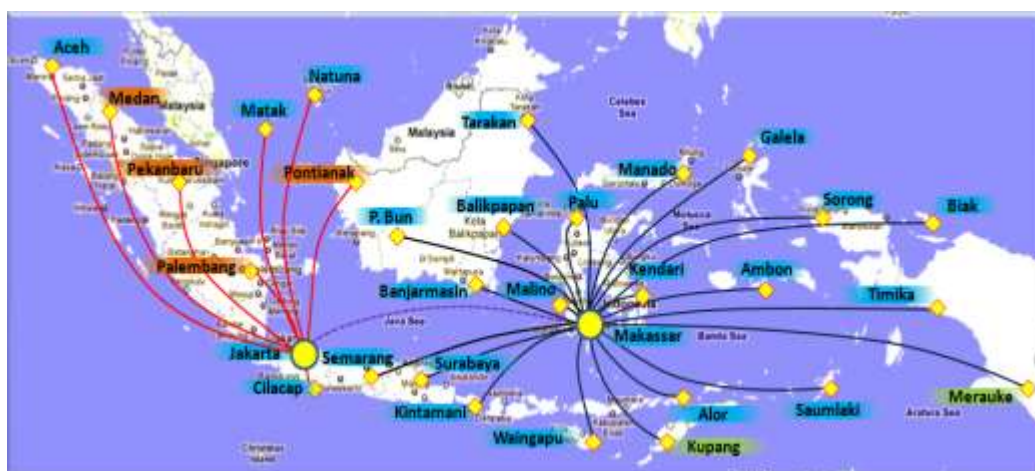
This working paper presents the information of the status of ADS-B Data Sharing between Indonesia, Australia and Singapore.

**1. INTRODUCTION**

1.1 Directorate General of Civil Aviation - Indonesia have been installed 30 ADS-B Ground stations with dual system at Makassar, Sorong, Natuna, Kupang, Merauke, Banda Aceh, Matak, Cilacap, Soekarno Hatta Airport-Jakarta, Tarakan, Pangkalan Bun, Palu, Kintamani - Bali, Waingapu, Alor, Galela, Ambon, Saumlaki, Medan, Pekanbaru, Palembang, Pontianak, Timika, Biak, Kendari, Manado, Banjarmasin, Balikpapan and Surabaya. And 1 ADS-B Ground station with single system for Test Bed purpose.

1.2 The 21 ADS-B Ground Stations in the Eastern part of Indonesia have been integrated with ATC system in MAATS-Makassar and 9 ADS-B Ground Station in the Western part of Indonesia have been integrated with JAATS-Jakarta (**Figure 1**).

1.3 Test-Bed system at DGCA Headquarters Office in Jakarta is able to monitor and control the ADS-B Data from 30 ADS-B Ground Station that installed in Western and Eastern part of Indonesia.



**Figure 1:** Indonesian ADS-B Ground Station - ATC System Integration

## 2. DISCUSSION

### ADS-B Data Sharing Implementation

2.1 ADS-B data sharing or ADS-B data collaboration is one of the main functions of the ADS-B plan. The implementation of ADS-B mutual data sharing with neighboring countries will improve safety and national and international flight services, because ATC officers in adjacent countries can see the position of the aircraft that will enter their FIR, making it easier for ATC to control the area of their FIR boundary.

2.2 Australia, Singapore and Indonesia are one of the leading countries in the world for the implementation of ADS-B data sharing. So far, Indonesia has been implementing the recommendations of ICAO to conduct ADS-B data sharing with neighboring countries (Australia and Singapore).

- Background activities of ADS-B Data Sharing in Indonesia are as follows:
- In August 2004, the results of the APANPIRG/15 meeting in Conclusion 15/26 decided to encourage neighboring countries to perform ADS-B data collaboration and to build mechanisms and infrastructure needed to achieve that goal.
- In ICAO ADS-B SITF/7 meeting in Chengdu-China in April 2008, SEA Sub regional ADS-B Implementation Working Group 2<sup>nd</sup> (Bali), 3<sup>rd</sup> (Malaysia) and 4<sup>th</sup> (Australia), Indonesia, Australia, Singapore, and Vietnam agreed to conduct ADS-B data collaboration in the area of adjacent airspace boundaries.
- ADS-B locations in collaboration between Indonesia and Australia as signed are Merauke, Saumlaki, Kupang, Kintamani, Waingapu, Alor, Semarang, and Timika while Australian locations are Thursday Island, Gove, Broome, and Doongan.
- ADS-B locations in collaboration between Indonesia and Singapore are Natuna and Matak, while Singapore ADS-B transmits data from Singapore.

2.3 The history of ADS-B Letters of Agreement between Indonesia/Australia and Indonesia/Singapore is summarized in **Table 1**.

HISTORY OF LOA AGREEMENT	
DGCA Indonesia And AUSTRALIA	DGCA Indonesia And CAAS Singapore
1. 20 September 2010 first signing of LOA	1. 22 December 2010 first signing of LOA
2. 18 June 2014 Amendment Agreement No.1	2. 27 May 2013 Amendment Agreement No.1
	3. 16 April 2014 Amendment Agreement No.2

**Table 1:** History of Indonesia's ADS-B Agreements

## 3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Discuss any possibilities on ADS-B data sharing between Indonesia with neighboring countries.
- b) Discuss any relevant matters as appropriate.

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