



ICAO

International Civil Aviation Organization

**Fifth Meeting of the Surveillance Implementation
Coordination Group (SURICG/5)**

Web-conference, 22 – 24 September 2020

Agenda Item 5: Update on surveillance activities and explore potential cooperation opportunities

UPDATE ON SURVEILLANCE FACILITIES IN INDONESIA

(Presented by Indonesia)

SUMMARY

This paper provides information regarding surveillance facilities in Indonesia. The paper is an update of the reports previously provided.

1. INTRODUCTION

- 1.1. The paper is an update of the reports previously provided. This paper also provides an update of surveillance facilities and the ADS-B implementation activities in Indonesia.

2. SURVEILLANCE FACILITIES

2.1. Radar Stations.

- Since 2020, Indonesia has been established 26 MSSR Mode S and 3 PSR. The number of MSSR is reduced from the previous report because it's replaced by the ADS-B ground station.
- Indonesia consider to reduce the number of radar stations and replace them with ADS-B ground station. Radar stations will be kept at some locations which have a moderate up to high density airspace/airport, and other location where considered to support a surveillance service at the FIR boundary.

2.2. ATM Systems.

- Today, Indonesia has 12 ATM systems deployed to provide a surveillance air traffic control in 12 terminal and approach. The 2 of them are included ATM system that provide area control services (Jakarta ACC and Ujung Pandang ACC).
- The 9 of ATM systems have capability to process surveillance data (Radar mode A/C/S/ES and ADS-B) and the rest only have capability to process Radar mode A/C/S/ES.
- The only 3 of ATM systems have additional capability to receive input Mode S Downlinked Aircraft Parameters (DAPs).

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2.3. A-SMGCS

- A-SMGCS in Indonesia has been established at 2 high density airports in Soekarno-Hatta, Jakarta int'l airport and Juanda Surabaya Int'l airport.
- The Installation of A-SMGCS in Bali which was previously scheduled to start at the end of 2019 has been postponed. Because of the impact of COVID 19, the work priorities must be rearranged. Indonesia has prioritized to upgrade several ATM systems that unable to process ADS-B data.

2.4. ADS-B Ground Stations.

- Indonesia completed the work of upgrading 30 ADS-B ground stations to support the DO260B in 2019.
- In order to increase the surveillance coverage in Papua, 7 additional ADS-B ground stations has been installed. 5 of new ADS-B has been carried out the acceptance test and 3 of them has been integrated to ATM system in Ujung Pandang.
- In 2021, Indonesia is planning to add 4 ADS-B ground stations in order to expand the coverage of surveillance in the western of Sumatera and the border between Ujung Pandang and Manila. It is needed to enhance surveillance for air traffic control in en-route and terminal areas.

2.5. ADS-B Implementation.

- Starting on 23rd April 2020, Indonesia has implemented mandatory ADS-B equipment for all transport category aircraft in 9 terminal areas and 10 airports. It was published in the AIRAC AIP Amendment Number 89 date 27th February 2020.

2.6. ADS-B data sharing.

- Indonesia has established ADS-B data sharing with Singapore and Australia.
- Initial coordination and commitment, even drafting of LOA has been done by Indonesia with other adjacent states, such as: Philippine, India, PNG, and Malaysia.
- Final draft of LOA has agreed between Indonesia and India, but has not been signed by both parties.
- ADS-B data sharing between Indonesia and the Philippines is pending, waiting for installation in Melonguane. This installation plan will be starting in 2021.

2.7. ADS-C/CPDLC (PBCS)

- Implementation of ADS-C/CPDLC (PBCS) that is in accordance with FIT-ASIA/10 in August 2020 has been conducted at UjungPandang FIR. Meanwhile, in Jakarta FIR has been in a trial operation.

3. ACTION REQUIRED BY THE MEETING

3.1. The meeting is invited to:

- a) note the information contained in this papers; and
- b) discuss any relevant matters as appropriate.
