



ICAO

International Civil Aviation Organization

Tenth Meeting of the FANS Interoperability Team – Asia
(FIT-Asia/10)

Video Teleconference, 03 – 06 August 2020

Agenda Item 3: PBCS Developments & Implementation

PBCS IMPLEMENTATION IN INDONESIA

(Presented by INDONESIA)

SUMMARY

This paper presents information regarding to the PBCS implementation in Indonesia, particularly in Ujung Pandang FIR.

1. INTRODUCTION

1.1. In accordance with the AIC Number: 02/18 15 MAR 2018, Indonesia has implemented PBCS in Ujung Pandang FIR since 29th March 2018.

1.2. During FIT-Asia/9 informed that the percentage of PBCS comply aircraft, based on P2 & SUR/RSP180 in their FPLs, compared to all international overflying aircraft in Ujung Pandang FIR during January, February and March 2019 is **36.3%**.

1.3. Problem Report (PR) from Ujung Pandang FIR has been submitted to FANS Central Reporting Agency (CRA) since November 2017. The number of PR, its status and type of the problem will be informed in this paper.

2. DISCUSSION

PBCS Implementation Evaluation

2.1. In the last two months period: May and June 2020, the percentage of PBCS comply aircraft, based on P2 & SUR/RSP180 in their FPLs, compared to all international aircraft flying in Ujung Pandang FIR is **43.8%** (PBCS: 1.387 flights from total traffic international overflying: 3.165 flights). The number of PBCS population increases almost 7,5% compared to the last year.

2.2. The implementation of PBCS has not been applied simultaneously by the most Ujung Pandang's adjacent FIRs, so that the implementation of PBCS separation in Ujung Pandang FIR, particularly for traffic crossed FIRs, has not been running optimally.

Performance-Based Horizontal Separation Implementation

2.3. As conclusion RASMAG/23-1: PBCS Compliance that, *ICAO reminds all APAC Administrations of Conclusions RASMAG/22-3, APANPIRG/27/7 and APANPIRG/28/11, and requests they urgently complete the annual Survey on Performance-Based Separation Implementation, due by April 30 each year, particularly with respect to survey items D1 and D2.* Indonesia has updated the Survey of The Status of Current and Planned Implementation of Performance-Based Horizontal Separation Minima as **Appendix A**.

Data Link Problem Reports

2.4. Since November 2017 Indonesia has submitted 32 Problem Reports (PRs) to CRA on the website <http://www.fans-cra.com>. The status of 26 PRs are CLOSED and 6 PRs are OPEN. There are 2 Report Assigned to Indonesia (1 open and 1 active) under investigation. Details of those PRs are attached as **Appendix B** in this paper.

2.5. According to CRA's categorization, PRs submitted by Indonesia consist of type of the problems as follows:

- 1 PRs are Air – Procedural – Flight Crew Action;
- 6 PRs are Air – Technical – Avionics Fault;
- 2 PRs are Ground;
- 2 PRs are Ground – Technical;
- 2 PRs are Multiple – Problems Occurred in More Than One Area;
- 3 PRs Network - Problem at GES or Network,
- 3 PRs are None - Report is a Non-problem, and
- 13 PRs are not determined yet (TBA).

Details of those PRs are attached as **Appendix B** in this paper.

3. ACTION BY THE MEETING

- 3.1. The meeting is invited to:
- a. note the information contained in this paper; and
 - b. discuss any relevant matters as appropriate.

Appendix A

SURVEY OF THE STATUS OF CURRENT AND PLANNED IMPLEMENTATION OF PERFORMANCE-BASED HORIZONTAL SEPARATION MINIMA

| Instructions: Complete the Survey and return by email to the ICAO APAC Regional Office (apac@icao.int) | | | | Y/N | If NO, Planned Date |
|--|-------------------|----------------|---|-----|---------------------|
| 1. Has your State completed any of the following preparations for PBCS implementation? | | | | | |
| PBCS Implementation Task List | Task Group | Task ID | TASK descriptor | | |
| | Group A | A-1 | AIP (Prescription of an RCP/RSP specification. Also see B-3 below) | Y | - |
| | | A-2 | PBCS policies, objectives supporting safety oversight of ANSP PBCS operations | N | TBD |
| | | A-3 | PBCS policies, objectives supporting safety oversight of Aircraft Operator and Aircraft System PBCS operations | N | TBD |
| | | A-4 | Proposal for Amendment to ICAO Doc 7030 - <i>Regional Supplementary Procedures</i> for PBCS operations, if applicable | N | Nov. 2021 |
| | Group B | B-1 | PBCS Implementation Plan | Y | - |
| | | B-2 | Target dates for PBCS and relevant ATM operations | Y | - |
| | | B-3 | RCP/RSP specifications | Y | - |
| | | B-4 | PBCS awareness | Y | - |
| | Group C | C-1 | Operational concepts and procedures for PBCS operations | Y | - |
| | | C-2 | ATM automation system changes to use flight plan RCP/RSP indicators | Y | - |
| | | C-3 | ATM automation changes for PBCS monitoring | Y | - |
| | | C-4 | Confirm initial ANSP compliance with RCP/RSP specifications | Y | - |
| | Group D | D-1 | Aircraft operator readiness | N | TBD |
| | | D-2 | Confirm initial operator and/or aircraft type/system compliance with RCP/RSP | N | TBD |
| | Group E | E-1 | PBCS monitoring, analysis and reporting - post implementation | Y | - |

| | | | | | |
|---|-----------|-------------|-------------------------------|-----|----------------------------|
| Instructions: Complete the Survey and return by email to the ICAO APAC Regional Office (apac@icao.int) | | | | Y/N | If NO, Planned Date |
| 2. Does your State submit data link problem reports to a recognized Central Reporting Agency (CRA) | | | | Y | - |
| 3. Does your State monitor and analyze data link performance in accordance with the following specifications and report the analysis to a recognized FANS Interoperability Team (FIT)? | | | | | |
| Communication Specifications & Interoperability Standards | Normal | RCP240 | FANS1/A CPDLC | Y | - |
| | Alternate | RCP400 | SATVOICE | N | TBD |
| | | RCP400 | HF | Y | - |
| Surveillance Specifications & Interoperability Standards | Normal | RSP180 | FANS1/A ADS-C | Y | TBD |
| | Alternate | RSP400 | SATVOICE | N | TBD |
| | | RSP400 | HF | Y | - |
| 4. Has your State implemented or planned to implement the following performance-based horizontal separation minima? | | | | | |
| Navigation Specifications & Applicable ATM Operations | RNAV/RNP | RNAV/RNP 10 | 50 NM Lateral Separation | Y | - |
| | | | 50 NM Longitudinal Separation | Y | - |
| | | RNP 4 | 30 NM Longitudinal Separation | N | TBD |
| | | | 30 NM Lateral Separation | N | TBD |
| | | | 23 NM Lateral Separation | N | TBD |
| | | RNP2 | 30NM Climb-Descend Through | Y | Implemented in Domestic |

Appendix B

PROBLEM REPORTS SUBMITTED TO CRA

B.1. Report Logged by AirNav Indonesia

| No | Status | CRA Reference | Originator Reference Number | Type | Title | Date UTC | Registration | Flight Identifier | Departure and Arrival Airports |
|----|--------|---------------|-----------------------------|----------------------------------|---------------------------|------------|--------------|-------------------|--------------------------------|
| 1 | Open | 2849-RP | MATSC039 | TBA | ADS DEFAULT PERIOD FAILED | 2019-03-30 | B8361 | CSN8479 | ZGGG-YBCS |
| 2 | Open | 2837-RP | MATSC035 | TBA | ADS CONNECTION FAILURE | 2019-03-26 | B5978 | CCA174 | YSSY-ZBAA |
| 3 | Open | 2836-RP | MATSC034 | TBA | ADS CONNECTION FAILURE | 2019-03-26 | B8383 | CCA165 | ZBAA-YMML |
| 4 | Open | 2824-KS | MATSC026 | AIR - Technical - Avionics Fault | NO CPDLC CONNECTION | 2019-03-16 | HSTGB | THA475 | VTBS-YSSY |
| 5 | Open | 2823-SH | MATSC025 | TBA | ADS CONNECTION FAILURE | 2019-03-15 | B6500 | CSN3074 | YMML-ZGSG |
| 6 | Open | 2554-SH | MATSC001 | AIR - Technical - Avionics Fault | CONNECTION FAILURE | 2018-01-08 | B6535 | CSC602 | YMML |

B.2. Report Assigned to AirNav Indonesia

| No | Status | CRA Reference | Originator Reference Number | Type | Title | Date UTC | Registration | Flight Identifier | Departure and Arrival Airports |
|----|--------|---------------|-----------------------------|--------|----------------------------------|----------|--------------|-------------------|--------------------------------|
| 1 | Open | 3078-MM | 2020-03 | Ground | Flight unable to logon for CPDLC | 1541 | ZK-OKN | ANZ6174 | VHHH-NZAA |
| 2 | Active | 3035-MM | 2020-01 | TBA | CPDLC connection issue | 0255 | ZK-NZC | ANZ77 | NZAA-RKSI |

B.3. Closed Report Related to AirNav Indonesia

| No | Status | CRA Reference | Originator Reference Number | Type | Title | Date UTC | Registration | Flight Identifier | Departure and Arrival Airports |
|----|---------------------|---------------|-----------------------------|--|-------------------------------|------------|--------------|-------------------|--------------------------------|
| 1 | Closed | 2864-SH | MATSC043 | MULTIPLE - Problems Occurred In More Than One Area | ADS connection FAIL | 2019-04-05 | RPC9936 | PAL211 | RPLL-YSSY |
| 2 | Closed | 2864-SH | MATSC043 | MULTIPLE - Problems Occurred In More Than One Area | ADS connection FAIL | 2019-04-05 | RPC9936 | PAL211 | RPLL-YSSY |
| 3 | Closed As Duplicate | 2863-SH | MATSC042 | AIR - Technical - Avionics Fault | ADS DEFAULT PERIOD FAIL | 2019-04-05 | B6112 | CSN3071 | ZGSZ-YSSY |
| 4 | Closed As Duplicate | 2863-SH | MATSC042 | AIR - Technical - Avionics Fault | ADS DEFAULT PERIOD FAIL | 2019-04-05 | B6112 | CSN3071 | ZGSZ-YSSY |
| 5 | Closed | 2851-KS | MATSC041 | TBA | ADS DEFAULT TIME PERIOD FAIL | 2019-04-01 | VHNZH | QFA97 | YBBN-VHHH |
| 6 | Closed | 2850-RP | MATSC040 | TBA | ADS WAYPOINT FAILED | 2019-03-30 | RPC9930 | PAL215 | RPLL-AYPY |
| 7 | Closed | 2848-RP | MATSC038 | AIR - Procedural - Flight Crew Action | ADS Connection Fail | 2019-03-30 | PKGHC | GIA870 | WADD-RKSI |
| 8 | Closed | 2847-RP | MATSC037 | TBA | ADS Connection Fail | 2019-03-30 | 9MMTD | MAS134 | YBBN-WMKK |
| 9 | Closed | 2831-KS | MATSC033 | TBA | CPDLC FAILED | 2019-03-22 | RPC8786 | PAL218 | RPLL-NZAA |
| 10 | Closed | 2830-KS | MATSC032 | TBA | CPDLC FAILED | 2019-03-21 | 9MMTN | MAS134 | YBBN-WMKK |
| 11 | Closed | 2829-KS | MATSC031 | TBA | ADS FAILED | 2019-03-21 | A7API | QTR909 | YSYY-OTHH |
| 12 | Closed | 2828-KS | MATSC030 | TBA | ADS FAILED | 2019-03-21 | VHZNE | QFA30 | VHHH-YMML |
| 13 | Closed | 2827-KS | MATSC029 | TBA | ADS FAILED | 2019-03-21 | V8RBC | RBA757 | WADD-WAAA |
| 14 | Closed | 2826-KS | MATSC028 | TBA | ADS FAILED | 2019-03-21 | V8DLA | RBA006 | YMML-WBSB |
| 15 | Closed | 2825-SH | MATSC027 | NONE - Report Is A Non-problem | ADS ALTITUDE DEVIATION FAILED | 2019-03-16 | B18915 | CAL052 | YSSY-RCTP |
| 16 | Closed | 2825-SH | MATSC027 | NONE - Report Is A Non-problem | ADS ALTITUDE DEVIATION FAILED | 2019-03-16 | B18915 | CAL052 | YSSY-RCTP |
| 17 | Closed | 2636-SH | MATSC016 | GROUND - Technical | CONNECTION FAIL | 2018-04-13 | B18915 | CAL051 | RCTP-YSSY |
| 18 | Closed | 2636-SH | MATSC016 | GROUND - Technical | CONNECTION FAIL | 2018-04-13 | B18915 | CAL051 | RCTP-YSSY |
| 19 | Closed | 2635-SH | MATSC017 | AIR - Technical - Avionics Fault | CONNECTION FAIL | 2018-04-14 | VHEBM | QFA52 | WSSS-YBBN |

| | | | | | | | | | |
|----|--------|---------|----------|-------------------------------------|------------------------|------------|-----------------------|-----------------------|-----------|
| 20 | Closed | 2635-SH | MATSC017 | AIR - Technical - Avionics Fault | CONNECTION FAIL | 2018-04-14 | VHEBM | QFA52 | WSSS-YBBN |
| 21 | Closed | 2634-SH | MATSC024 | NETWORK - Problem At GES Or Network | LINK FAILURE | 2018-04-21 | ALL DATALINK AIRCRAFT | ALL DATALINK AIRCRAFT | - |
| 22 | Closed | 2633-SH | MATSC023 | NETWORK - Problem At GES Or Network | LINK FAILURE | 2018-04-20 | ALL DATALINK AIRCRAFT | ALL DATALINK AIRCRAFT | - |
| 23 | Closed | 2632-SH | MATSC021 | NETWORK - Problem At GES Or Network | LINK FAILURE | 2018-04-18 | ALL AIRCRAFT | ALL AIRCRAFT | - |
| 24 | Closed | 2555-SH | MATSC002 | Ground | CONNECTION FAILURE | 2018-01-09 | RPC8781 | PAL214 | YMML |
| 25 | Closed | 2555-SH | MATSC002 | Ground | CONNECTION FAILURE | 2018-01-09 | RPC8781 | PAL214 | YMML |
| 26 | Closed | 2532-MM | MATSC014 | NONE - Report Is A Non-problem | Datalink disconnection | 2017-11-03 | 9V-OFG | TGW018 | WSSS-YMML |
