



ICAO

International Civil Aviation Organization

Twenty-Seventh Meeting of the Regional Airspace Safety
Monitoring Advisory Group (RASMAG/27)

Video Teleconference, 22 – 25 August 2022

Agenda Item 5: Airspace Safety Monitoring Activities/Requirements in the Asia/Pacific Region
REPORTING CULTURE AND MITIGATION ACTIVITIES TO REDUCE LHD INCIDENTS
IN INDONESIA AIRSPACE

(Presented by Indonesia)

SUMMARY

This paper presents the information about RVSM in Indonesia Airspace and reporting culture and mitigation activities implementation to reduce LHD incident in Indonesia. Basically, the implementation steps to reducing LHD incident is as follows: (1) Strengthened the information management system, (2) To develop positive safety reporting culture, and (3) To provide analysis and mitigation report. Furthermore, the Directorate General of Civil Aviation Indonesia and AirNav Indonesia have been executing and planning activities consistently impressing.

1. INTRODUCTION

1.1 The implementation of Reduce Vertical Separation Minima (RVSM) in Indonesian airspace, namely the Jakarta Flight Information Region (FIR) and Ujung Pandang Flight Information Region (FIR) were analysed monthly by the Australian Airspace Monitoring Agency (AAMA) and reported to the International Civil Aviation Organization (ICAO) every year in the Regional Airspace Safety Monitoring Advisory Group (RASMAG).

1.2 From report history, the 26th Meeting of The Regional Airspace Safety Monitoring Advisory Group (RASMAG/26), which is the information have been carried out by Indonesia as a follow-up recommendations and notes, including: by publishing a bulletin related to LHD incident understanding, internal and external meeting should be carried out and conducting safety campaigns.

2. DISCUSSION

2.1 AirNav Indonesia have strengthened the information management system for safety reporting based digital technology for supporting air navigation services can provide safety information. The name of safety reporting system is ESI - Effort System Integrated, accompanied by standard operating procedure and manual. This reporting system of AirNav Indonesia is monitored closely by Authority (Directorate General of Civil Aviation Indonesia).

2.2 AirNav Indonesia have developed positive safety reporting culture in case of how to increase LHD events reporting since 2019 - 2021.

2.3 **Justification:** An intense and close coordination on Large Height Deviation (LHD) occurrences between Directorate General of Civil Aviation Indonesia, AirNav Indonesia (Perum LPPNPI), and Australian Airspace Monitoring Agency (AAMA) was conducted through the years. One of coordination subject was LHD mitigations within the Jakarta FIR and The Ujung Pandang FIR.

2.4 The safety actions have been implemented to help organization to provide solving problem of underlying root causes of LHD occurrences, the purpose is to develop safety mitigation and prevent reoccurrence early.

2.5 The tasks of AAMA for AirNav Indonesia, is to assist for providing analysis and mitigation report which divided into two parts those are Part A – LHD Analysis and Part B – LHD Preventive/ Mitigation Measures.

2.6 The analysis and mitigation forms were intended to help organization to understand the underlying root causes of LHD occurrences in order to develop safety mitigation and prevent reoccurrence.

2.7 In-depth analysis of the LHD occurrences during 2021 have found the contributing factors include mitigation/control/barriers as the following:

No.	Occurrences	Numbers of Reports	Contributing Factors / Causes	Mitigation/ Controls/ Barriers
1	No transfer information	7	1. Human factor issues 2. Systems/ equipment	1. Increasing ATC awareness especially in coordination procedure. 2. Lesson learned.
2	No revision in time and level	3	1. Human factor issues 2. Not apply procedures / LOAs	1. Increasing ATC awareness especially in coordination procedure. 2. Lesson learned.
3	Miscoordination due to unaware with airspace boundary	3	3. Human factor issues 4. Not apply procedures / LOAs	1. Awareness training. 2. ATC lesson learned activity and coordination procedure to all personnel.
4	Controller unaware of failed AIDC message	3	1. Human factor issues 2. Systems/ equipment 3. Not apply procedures / LOAs	ATC lesson learned activity and coordination procedure to all personnel.
5	ATC forgot to carry out or late to the revise level/time transfer	3	1. Human factor issues 2. Not apply procedures / LOAs	1. Increasing ATC awareness especially in coordination procedure. 2. Lesson learned.
6	Incorrect transferred data	2	Human Factor issues	ATC lesson learned activity and coordination procedure to all personnel.
7	Pilot not comply with ATC instruction	2	Human factor issues	Related to Airline Operator.
8	Pilot Error (CRM)	2	Human factor issues	1. Related to Airline Operator. 2. Reminded again to increase its awareness

No.	Occurrences	Numbers of Reports	Contributing Factors / Causes	Mitigation/ Controls/ Barriers
				of traffic that becomes responsibilities and work according to the applicable SOP and LOCA and made this incident happen as a lesson and a reminder to always be able to maintain and improve safety & air traffic services.
9	ATC failed to monitor corrected transferred level in AIDC message	1	1. Human factor issues 2. Not apply procedures / LOAs	ATC lesson learned activity and coordination procedure to all personel.
10	An indicator ATS System (AIDC) not working correctly	1	Systems/ equipment	Review in safety meeting attended by all ACC Controller.
11	ATC failed to scan traffic opposite	1	Human factor issues	Review supervisory and scanning.
12	ATC forgot to give instruction after request was approved by other adjacent	1	Human factor issues	ATC lesson learned activity and coordination procedure to all personel.
TOTAL		29		

2.8 The Directorate General of Civil Aviation Indonesia and Airnav Indonesia have been planning and executing activities to mitigate the LHD identified along Jakarta FIR and Ujung Pandang FIR. All these activities include technological solutions, safety meetings, safety campaigns, procedures reviews, and trainings.

2.9 The Safety Campaign have performed to improve the safety reporting culture, especially Large Height Deviation events in Indonesia's airspace

2.10 The numbers of LHD reports during three years, can be seen the table below:

Year	Reports
2019	54
2020	22
2021	29

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.