



ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

Twenty seventh Meeting of the Africa-Indian Ocean Planning and Implementation Regional Group (APIRG/27) and Tenth Meeting of the Regional Aviation Safety Group for the Africa-Indian Region (RASG-AFI/10), Joint sessions

4 and 8 November 2024

Agenda Item 3: APIRG and RASG-AFI Coordination

3.4. AFI Airspace Monitoring

AFI LARGE HEIGHT DEVIATION MANUAL

(Presented by ARMA)

SUMMARY	
This paper presents a high-level summary of all the initiatives undertaken by ARMA in improving large height deviation (LHD) reporting activities and possible solutions to the current challenges.	
The action by the Meeting is in paragraph 3	
Strategic Objectives	This working paper relates to the Strategic Objective - A-Aviation Safety
Reference	- APIRG Reports - ARMA Reports and Guidance material.

1 INTRODUCTION

- 1.1 A Large Height Deviation (LHD) means a vertical deviation of 300 ft or more from air traffic control (ATC) assigned or coordinated flight level. The deviation may be due to an ATC or pilot error, an equipment malfunction or other environmental factors such as turbulence, causing the aircraft to be at a vertical position that is unexpected by the ATC.
- 1.2 A LHD occurs when an aircraft occupies space unexpected by an air traffic controller. Not knowing that the space is occupied, the controller may clear another aircraft to that location, which may cause a mid-air collision (MAC). A LHD contributes to the risk regardless of whether a loss of separation occurred or not. ATC authority is responsible for reporting LHD to the responsible Regional Monitoring Agency (RMA).
- 1.3 ICAO Doc 9574 RVSM Implementation Manual section 5.4 specifies that ATC authorities are responsible for reporting LHD to the responsible RMA. The RMA will use this information to assess the overall risk of the reduced vertical separation minimum (RVSM) airspace as LHDs are main contributing factors to the risk of mid-air collision. *(Error! Reference source not found. refers).*

2 DISCUSSION

2.1 Over the years ARMA has constantly been trying to address reporting deficiencies both in the South Atlantic (SAT) and AFI Region from States. Out of the 48 States under the oversight of ARMA, only 5 States are providing LHD Reports to ARMA which are Botswana, Namibia, Zambia, South Africa and Kenya. ARMA discovered that there were many changes in personnel, procedures, and circumstances in the respective States and ANSPs that contributed to the lack of reporting. The ARMA developed both guidance and training material to help retain knowledge for incoming National Program Manager (NPM) in conducting safety awareness promotions for LHD reporting within the Region. An LHD Manual was developed in 2 languages English and French as per *Appendix A*. ARMA believes it will assist in spreading awareness resulting in reduced LHD occurrences and increases reporting culture. The package includes:

- **Attachment 1** to this paper is the LHD reporting form which will be on the ARMA Website www.arma.africa
- **Attachment 2** to this paper is the LHD frequently asked questions (LHD FAQ). It is intended to promote a common understanding of LHD in one page.
- **Attachment 3** to this paper is the LHD taxonomy. It provides a comprehensive list of generic LHD classification.
- **Attachment 4** to this paper is the Cross-Boundary LHD coordination procedure. To ensure that there is coordination between the two involved air traffic services (ATS) units to uncover the cause and prevent future occurrences, the following additional coordination procedure is recommended for every LHD occurrence that involves another ATS unit.

2.2 SAT States are encourage to have a LHD Preventative/Mitigation Measures in place. States / ANSPs are also encouraged to keep track of the mitigation measures which are identified and planned, as well as the effectiveness of those measures.

SAT States are encourage to have trained Human Factor Specialists, so that the State is able to recognize human performance (HP) considerations in their daily work activities, including in their own internal organization, and to know when the help of a qualified and experienced HP professional should be sought.

3 ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Note the information contained in the WP;
- b) Endorse the use of both English and French version of the LHD Manual;
- c) Encourage States to report LHDs to the RMA; and
- d) Encourage States to adopt a Just Culture into their Mandatory Reporting Processes.

- End -