



ICAO

*International Civil Aviation Organization***The Third Meeting of the Asia/Pacific Air Traffic Management Automation System Task Force (APAC ATMAS TF/3)**

Video Tele-Conference, 8 - 10 June 2022

Agenda Item 2: Review of Outcomes of Relevant Meetings**UPDATES FROM RASMAG/26**

(Presented by the Secretariat)

SUMMARY

This paper provides a brief summary of the outcomes from the Twenty-Sixth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/26), relevant to the priorities of AIDC implementation.

1. INTRODUCTION

1.1 In ATS Inter-facility Data Communication Review Task Force Meeting (AIDC/TF) held in from 6 to 9 February 2007 in Bangkok, RASMAG recognized the value of ATS Inter-facility Data Communications (AIDC) between ATS facilities in reducing the potential for ground-ground coordination errors by enabling routine coordination to be undertaken directly between the ATS equipment in respective ATC facilities. This removed the possibility of human readback and hearback errors, resulting in a decrease in coordination errors and associated decrease in RVSM Large Height Deviation (LHD) occurrences. The meeting also recognized the reduction in ATC workload that resulted from use of AIDC, leaving more time for traffic separating functions and increasing the effective use of airspace. (Note: *LHD* – Any vertical deviation of 90m/300ft or more from the flight level expected to be occupied by the flight.)

1.2 RASMAG/23 meeting held in July 2018 estimated that the vertical risk for the South Asia/Indian Ocean area had increased substantially from 27.8×10^{-9} to 62.4×10^{-9} , or more than an order of magnitude higher than the TLS. Negative transfer cases had accounted for 45% of occurrences but 63% of the risk. Urgent work was being undertaken by all the States concerned to implement improved Air Traffic Services (ATS) surveillance and communications, including ATS Inter-facility Datalink Communications (AIDC), and enhanced operational procedures to reduce this risk.

1.3 The Twenty-Sixth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/26) was held *from 20 to 23 September 2021* by Video Teleconference (VTC). A total of 119 participants were registered for the meeting and the meeting report, working papers, information papers, and other resources can be accessed by following link:

<https://www.icao.int/APAC/Meetings/Pages/2021-RASMAG26.aspx>

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2. DISCUSSION

2.1 The meeting reviewed the outcome of The Eleventh Meeting of the FANS Interoperability Team-Asia (FIT-Asia/11) was held by video teleconference *from 23 to 26 August 2021*.

2.2 The meeting reviewed Vertical Safety Report on RVSM airspace risk by China Regional Monitoring Agency (China RMA), the Japan Airspace Safety Monitoring Agency (JASMA), the Monitoring Agency for the Asian Region (MAAR), and etc. during 2020.

2.3 The meeting also discussed other issues regarding Non-RVSM Approved Aircraft, Long Term Height Monitoring (LTHM) Burden Estimate, safety reporting, the APANPIRG ATM and Airspace Safety Deficiency List, etc.

APAC Consolidated Safety Report

2.4 The ICAO secretariat provided a regional safety monitoring assessment summary, which highlighted the Hot Spot Summary in the **Table 19** in the meeting report as below:

Hot Spot	Involved FIRs	Identified	Remarks
A1	Kolkata/Chennai/Dhaka – Yangon	2015	Cat. E LHDs reducing
A2	Chennai – Kuala Lumpur	2015	Cat. E LHDs reducing
B	Incheon (AKARA Airspace)	2015	Cat. E LHDs
D	Manila – all adjacent FIRs	2015	Cat. E LHDs reducing Cat F LHDs emerging
F	Mogadishu – Mumbai	2015	Cat. E LHDs
G	Sanaa/Muscat – Mumbai	2015	Cat. E LHDs (Sanaa improved)
J	Jakarta – Singapore/Kota Kinabalu	2018	Cat. E LHDs, minor and reducing
M	Colombo - Melbourne	2019	Proposed to re-classify as non-hot spot
N	Oakland USA – Hawaii CEP	2019	Cat. E LHDs increasing

Table 19: LHD Hot Spots in the Asia/Pacific Region

JASMA AKARA Safety Improvement Update

2.5 All Air Traffic Control (ATC) responsibility for ATS route A593 between ONIKU and SADLI had been handed over to Incheon Area Control Centre (ACC). Due to the use of ATS Inter-Facility Data Communication (AIDC), there had been no Large Height Deviations (LHDs) at BEDAR and ONIKU reported to JASMA from 25 March to 31 August 2021.

*MAAR Vertical Safety Report**South Asia Indian Ocean Airspace*

2.6 The majority of LHDs at the western boundary of the Mumbai FIR were Category E, with sub-category being ‘no or late FL revision’ and ‘negative transfer’. The poor communication services and lack of surveillance coverage at these interfaces worsened the situation. It was strongly recommended that an engineering solution such as AIDC (hard barrier) be implemented with the Mumbai FIR to mitigate the risk. The meeting was informed that Mumbai ACC had conducted AIDC trials with Muscat ACC and Mogadishu ACC in March 2021. Some minor systematic issues were found

and remained to be resolved before the AIDC implementation could proceed to the next phase.

2.7 The number of LHDs at LHD Hot Spot A1 (Kolkata/Dhaka - Yangon) and LHD Hot Spot A2 (Chennai - Kuala Lumpur), first identified as hot spots in 2015, had been decreasing from 275 in 2018 to 24 in 2020. All reported LHDs in 2020 had 0-min duration, resulting in the operational risk of 0 FAPFH. The reduction of operational risk to 0 FAPFH was related to safety enhancement initiatives including ADS-B data sharing between Kolkata and Yangon, and AIDC between Chennai and Kuala Lumpur, as well as the reduction in traffic volume.

Southeast Asian Airspace

2.8 Since the transition to the new ATM centre in 2018, Manila ACC aimed to continually improve their communication and surveillance capabilities with ADS-C/CPDLC, AIDC and ADS-B technology. In 2019 Category F LHDs were an emerging issue at Manila boundaries where AIDC was implemented. There were a total of 9 Category F LHDs, and 7 out of 9 LHDs were due to AIDC failures. In 2020, the number of Category F LHDs slightly decreased from 9 to 6 LHDs. Those 6 LHDs were caused by the AIDC system failures and the unsuccessful transfer via AIDC. This issue should be followed up with relevant units and continuously monitored. ICAO noted that system alerts to ATC and robust procedures requiring voice coordination in the event of failure of AIDC message exchange were necessary for all AIDC implementations.

Identified Airspace Risk Occurrences in Indian FIRs

2.9 India presented the identified airspace risk occurrences in the four Indian FIRs as reported by ATC during the period 01 January to 31 December 2020, and the various mitigation measures taken by India. As part of its efforts to reduce risks due to coordination errors and other near-boundary ATS incidents India planned to implement AIDC with all of the neighbouring FIRs.

Update on Manila FIR after the AIDC Implementation and Lessons Learned

2.10 Philippines provided an update on AIDC implementation in the Manila FIR, problems encountered after implementation and the mitigations in place to prevent LHDs.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) review summary of hot spots in section 2.4; and
- c) discuss any relevant matter as appropriate
