International Civil Aviation Organization

The Combined Tenth Meeting of the South Asia/Indian Ocean ATM Coordination Group (SAIOACG/10) and Twenty—Seventh Meeting of the South East Asia ATS Coordination Group (SEACG/27)

Bangkok, Thailand, 30 March – 03 April 2020

Agenda Item 3: Review of Current Operations and Problem Areas

FIT-ASIA AND RASMAG OUTCOMES

(Presented by the Secretariat)

SUMMARY

This paper presents outcomes relevant to the ATM/SG of the Seventh and Eighth Meetings of the FIT-Asia and the Twenty-Third Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/23).

1. INTRODUCTION

1.1 The Ninth Meeting of the Future Air Navigation Services (FANS) Interoperability Team – Asia (FIT-Asia/9) was held from 01 – 05 July 2019 in Makassar, Indonesia.

1.2 The Twenty-Fourth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/24) was held from 09 – 12 July 2019 at Bangkok, Thailand. A total of 38 Working Papers (WPs) and nine Information Papers (IPs) were presented to the RASMAG/24 meeting.

1.3 The Seventh Meeting of the RASMAG Monitoring Agency Working Group (MAWG/7) was held from 03 – 6 February 2020 in Bangkok, Thailand, as hosted by AEROTHAI.

2. DISCUSSION

FIT-Asia/9 Outcomes

2.1 Of the Problem Reports (PRs) submitted to the Central Reporting Agency (CRA) between July 2018 and June 2019, FIT-Asia/9 had noted recurrent problems with aircraft systems receiving, acknowledging then discarding messages (‘Ack’n’toss’), up-linking of UM175 message resulting in aircraft downlink error message (PANS-ATM recommends against the use of UM175), continuing poor performance of High Frequency Data Link (HFDL), and delayed or withheld authorization from aircraft operators for the CRA to access data. RASMAG/24 had agreed to the following Conclusion:

Conclusion RASMAG/24-1: Guidance for Data Link Performance Improvement for Aircraft Operators

2.2 The FIT-Asia/9 had noted Performance had been below the 95% requirement for Required Surveillance Performance (RSP180) and/or Required Communications Performance (RCP240) in two or more Flight Information Regions (FIRs) during at least one of the two analysis periods. Moreover, few FIT-Asia Administrations were providing information on the causes of poor performance, rectification action, and the results of that action. RASMAG/24 had agreed to the following Conclusion:

Conclusion RASMAG/24-2: Continuous Data Link Performance Monitoring

South Asian Airspace

2.3 During the RASMAG/24, the South Asian/Indian Ocean Reduced Vertical Separation Minimum (RVSM) airspace overall risk in 2018 was estimated to be **56.06 x 10^{-9}**, which did not meet the Target Level of Safety (TLS) by an order of magnitude. **Figure 1** presents the airspace collision risk estimate trends for South Asia/Indian Ocean airspace during 2018.

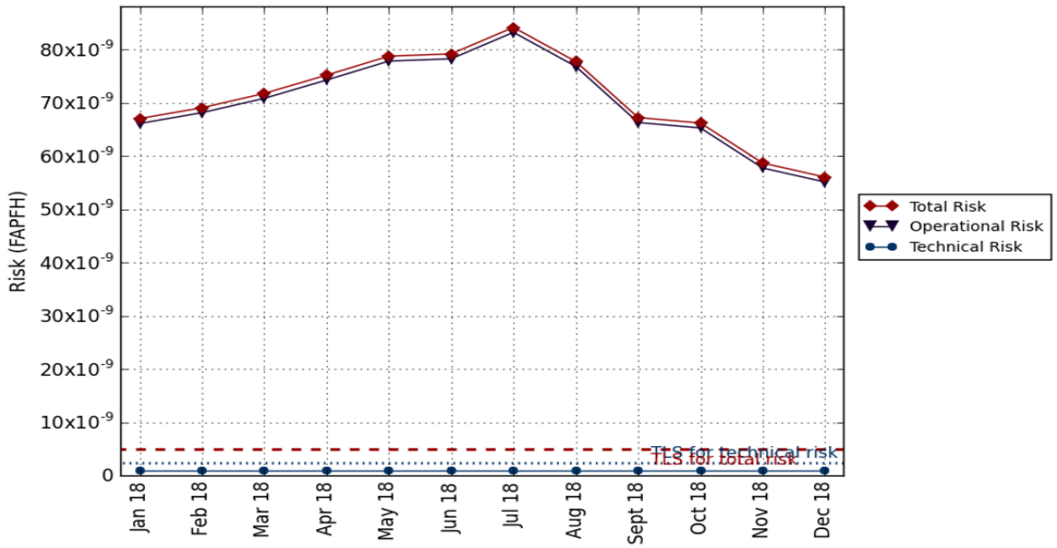

Figure 1: South Asia/Indian Ocean Airspace RVSM Risk Estimate Trends

2.4 The MAWG/7 had been presented with preliminary assessments of the South Asia/Indian Ocean airspace, based on data submitted by States until 07 January 2020. The assessment had determined that the TLS for the South Asia/Indian Ocean (SAIO) airspace had not been achieved during 2019 by about an order of magnitude (**Table 1** and **Figure 2**).

Source of risk	Risk estimate	TLS	TLS Comparison
RASMAG/24 total risk	*56.06 x 10^{-9}*	*5.0 x 10^{-9}*	*Above TLS*
Technical risk	0.93 x 10^{-9}	2.5 x 10^{-9}	Below technical TLS
Operational risk	44.72 x 10^{-9}	-	-
Total risk	**45.65 x 10^{-9}**	5.0 x 10^{-9}	**Above total TLS**

Table 1: SAIO RVSM Risk Estimates, 01 December 2018 – 30 November 2019

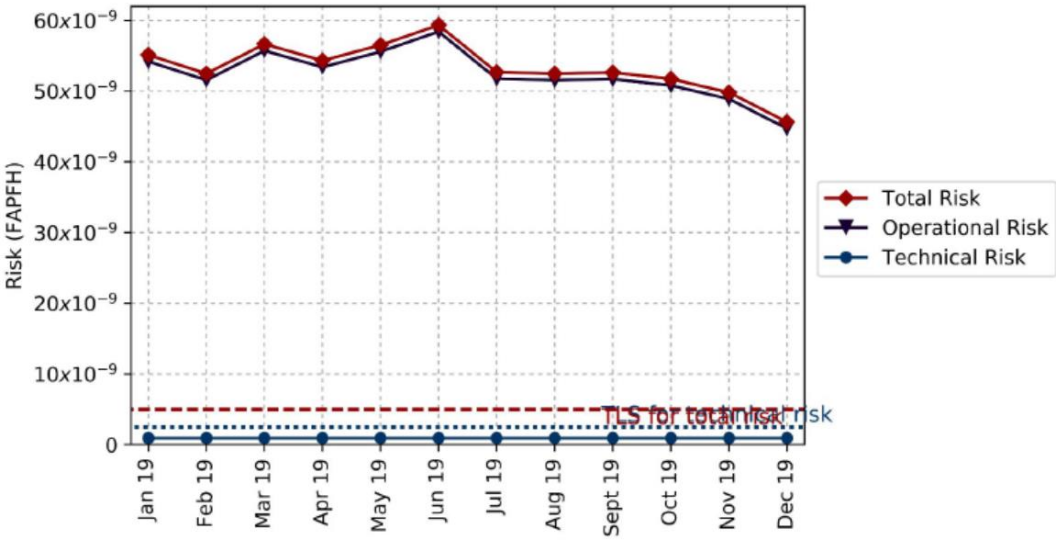

Figure 2: SAIO RVSM Risk Estimate Trends, 01 December 2018 – 30 November 2019

2.5 A total of 392 occurrences had been submitted by MAWG/7 and analyzed as LHDs. Of these, 125 of these were risk-bearing, mainly Category E events. There were 16 LHDs that exceeded 30 minutes in duration, which accounted for 17.7 x 10^{-9} or 40% of the total operational risk. There were approximately 30 LHDs submitted in early January 2020 that had not been included in the analysis. Therefore, it was expected that the level of SAIO estimated risk for 2019 would be similar to that of 2018. When the final calculations were made for RASMAG/25.

2.6 The predominant hot spot in this area during 2019 continued to be the Muscat FIR (Oman) – Mumbai FIR (India) interface. The preliminary number of LHDs reported at Hot Spot G was 154, which accounted for 31.1 x 10^{-9} or 69.53% of total operational risk. **Figure 3** indicates that overall, operational measures since 2017 have failed to improve the incidence of LHDs in this area, while LOTAV had the highest risk due to the number of long duration LHDs that occurred at this waypoint.

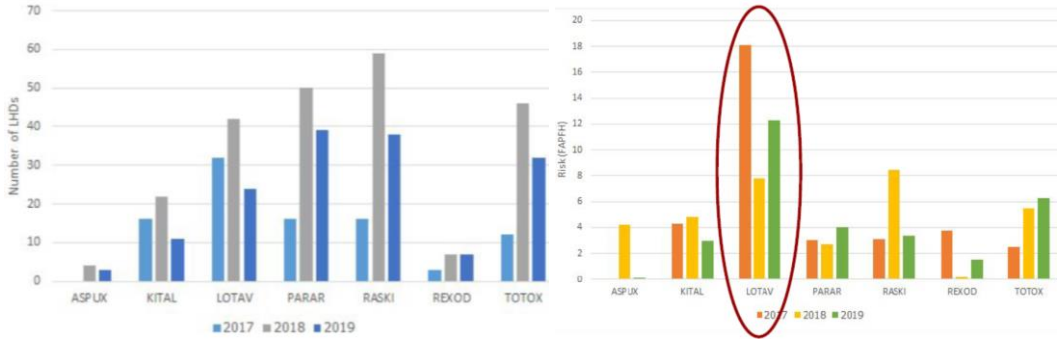

Figure 3: Muscat/Mumbai FIRs Interface LHDs and Estimated Risk Levels, 2017 – 2019

2.7 In contrast, the risk levels between the Mumbai FIR, and the Sana'a and Mogadishu FIRs (Yemen and Somalia respectively) declined overall from 2017 to 2019, as did the risk between the Kolkata and Yangon FIRs (India and Myanmar respectively). In addition, Hot Spot I between the Karachi and Kabul FIRs (Pakistan and Afghanistan respectively) had significantly reduced, although this could be due to a lack of reporting by the States concerned.

2.8 The number of LHDs at the interface between the Chennai and Yangon/Kuala Lumpur FIRs (India and Myanmar/Malaysia respectively) decreased slightly, but the total risk had doubled (Figure 4). This indicated an urgent requirement for enhanced surveillance (including data sharing) between India and Malaysia – particularly at IGOGU and NOPEK, which would probably reduce the duration of these LHDs and therefore risk levels.

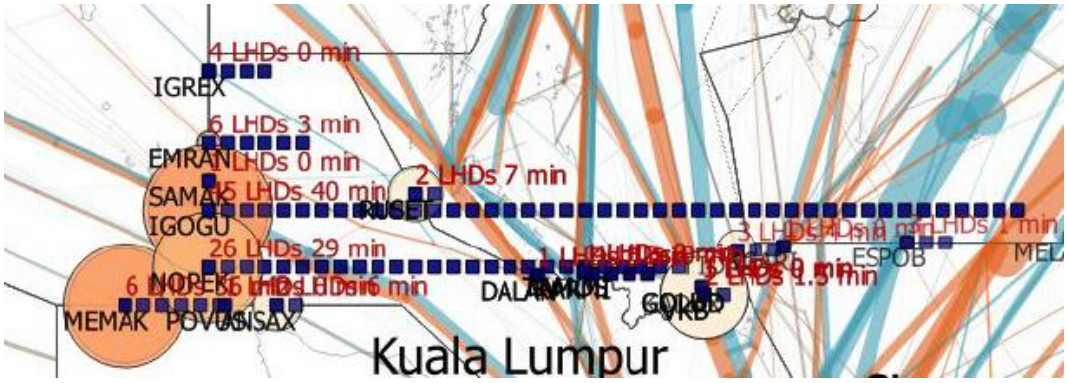

Figure 4: Reported LHDs at the Chennai-Kuala Lumpur FIR Interface, 2019

2.9 There had been five risk-bearing LHDs during February 2019 which led to a major increase

in the risk levels in this period. This coincided with data sharing outage due to the breakage of an undersea cable, indicating a need for a form of backup system that improved redundancy (**Figure 5**).

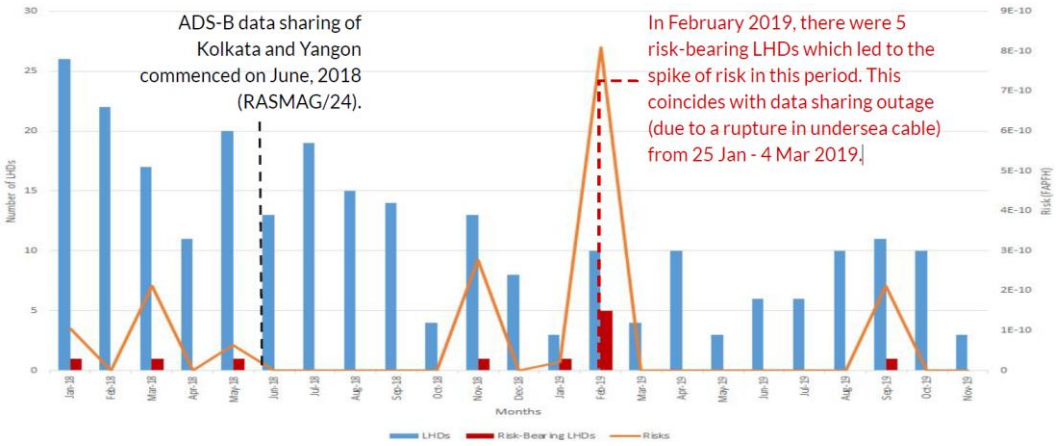

Figure 5: LHD between Kolkata, Chennai and Yangon FIRs, January – November 2019

2.10 MAWG/7 noted that the level of SAIO estimated risk spiked from March – June 2019, coincident with the closure of Pakistan's airspace and the major increase of traffic via waypoint RAKSI on the Muscat/Mumbai FIR interface (**Figure 6**).

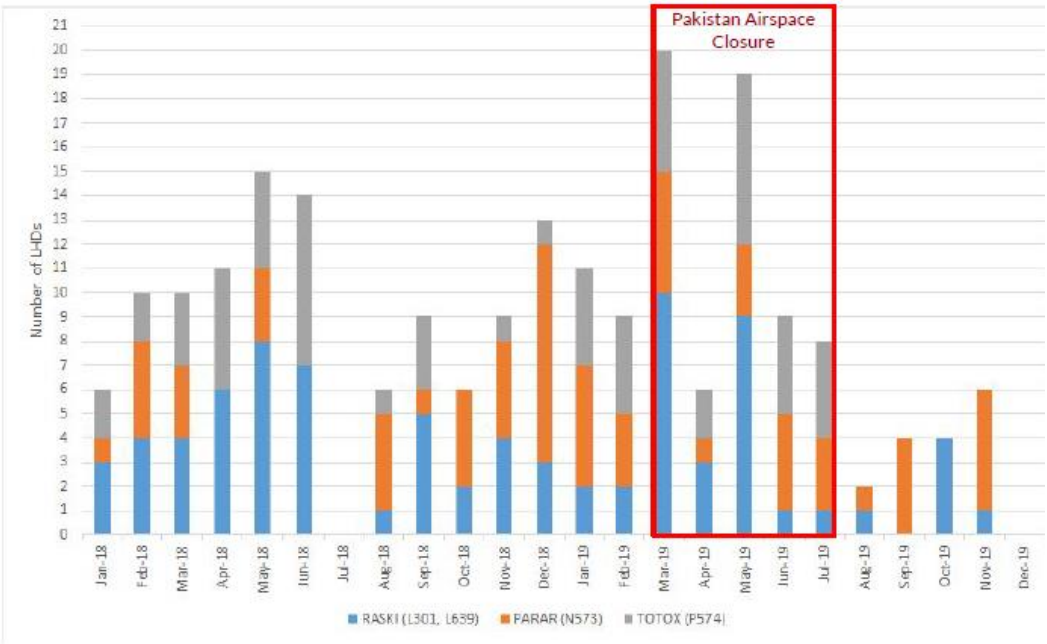

Figure 6: Pakistan Airspace Closure Safety Consequences, Muscat/Mumbai Interface

2.11 MAWG/7 had noted that Bangladesh (Dhaka FIR), Nepal (Kathmandu FIR) and Thailand (Bangkok FIR) had <u>not</u> reported any LHDs during 2019, which was implausible. Meanwhile, India and Pakistan only reported one LHD within the Delhi and Lahore FIRs respectively (and only three within Pakistan's Karachi FIR) during 2019, which was also statistically improbable. These reporting issues contrasted with the improved reporting in the Indian FIRs of Chennai and Mumbai, which indicated a significant number of internal LHD occurrences away from other State FIR boundaries (**Figure 7**).

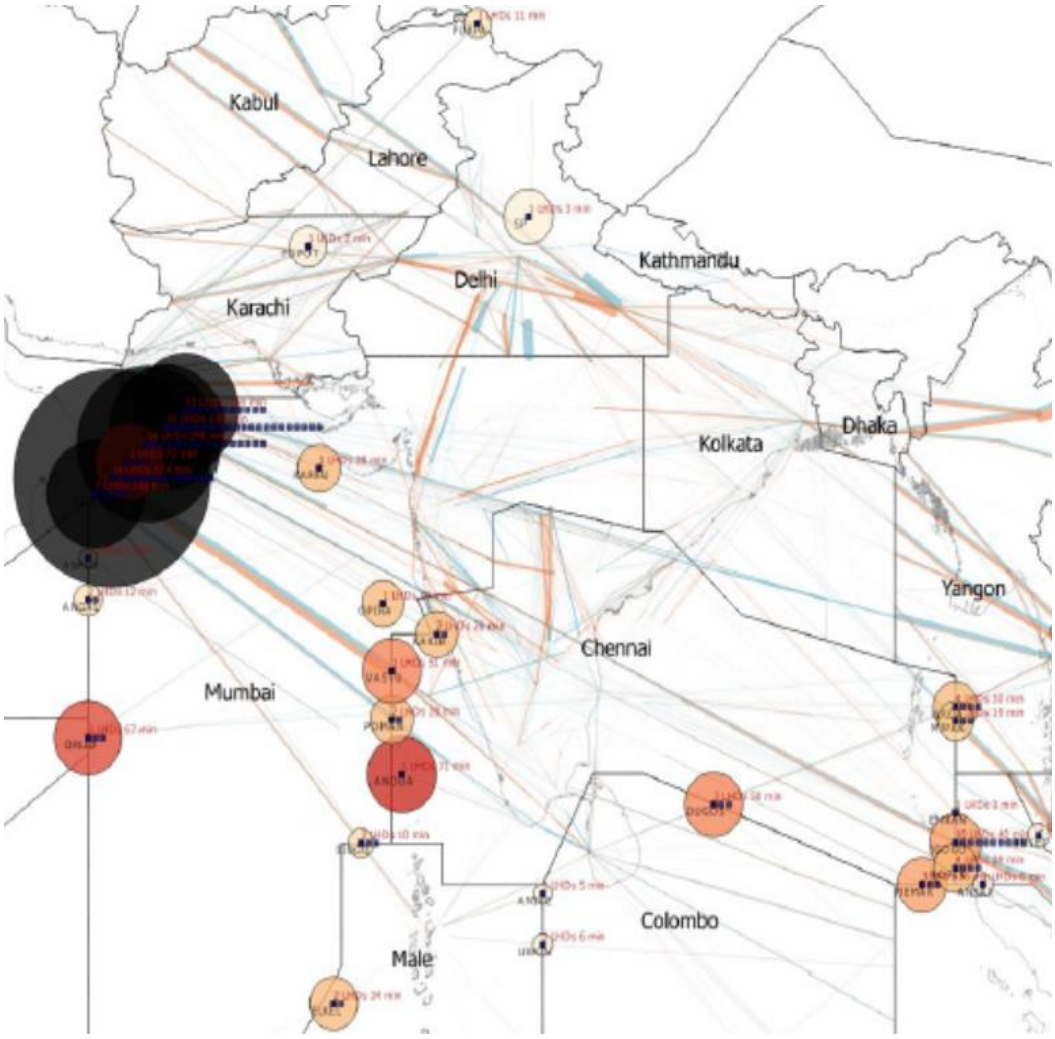

Figure 7: Risk-Bearing SAIO LHD Locations, 2019

2.12 At the time of the MAWG/7 meeting, data indicated that the following SAIOACG/SEACG States had <u>not</u> consistently made Large Height Deviation (LHD) reports during 2019:

- Afghanistan (Kabul FIR);
- India (Delhi Fight Information Region – FIR);
- Maldives (Male FIR);
- Nepal (Kathmandu FIR); and
- the Philippines (Manila FIR).

2.13 **Figure 8** provides a long-term perspective on the SAIO estimated RVSM risk levels. This clearly indicated the greater emphasis of safety reporting since RASMAG had started to address this subject in 2013, and the lack of reporting that had resulted in compromised risk estimates before this.

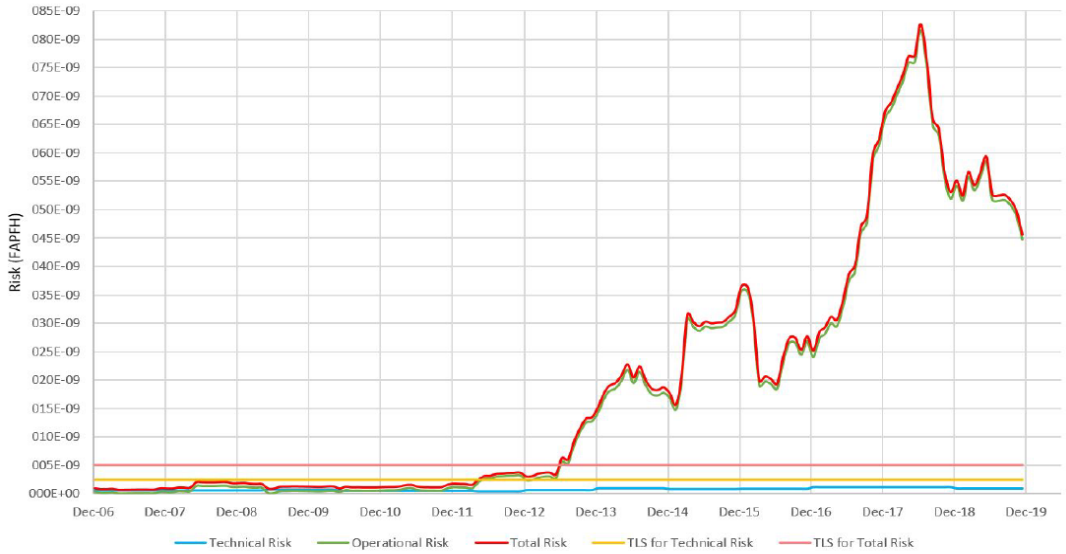

Figure 8: 12 month Moving Sum of Risk Estimates, 2007 – 2019

Southeast Asia/West Pacific Airspace

2.14 During the RASMAG/24, the Western Pacific/South China Sea (WPAC/SCS) RVSM airspace total risk was estimated to be **5.07 x 10^{-9}**, which did not achieve the TLS by a small margin. The MAWG/7 updated this information to illustrate the continuing downward trend, so that the preliminary 2019 risk estimation was **2.62 x 10^{-9}**, well below TLS (**Figure 9**).

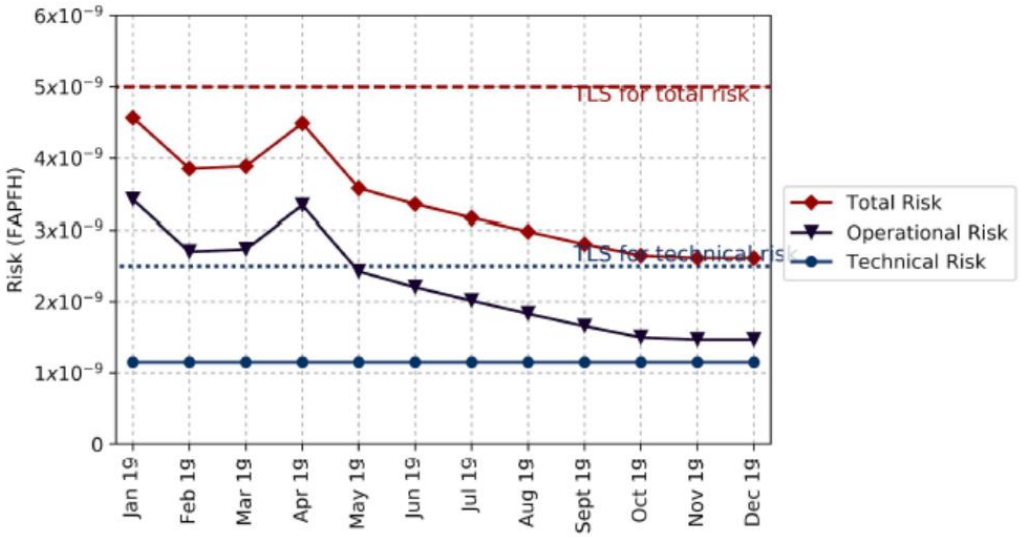

Figure 9: WPAC/SCS Airspace RVSM Risk Estimate Trends, 2019

2.15 The data indicates the continuing efforts by States in this area to implement new technology such as improved surveillance and Air Traffic Services Inter-facility Datalink Communications (AIDC) to reduce LHDs. However, a spike in operational risk had occurred in April 2019, compared with the rest of the year. This was mainly caused by a single LHD with an exceptionally long duration of 41 minutes, accounting for 51% of total operational risk. In this case, there was no transfer and the aircraft entered the Kota Kinabalu FIR (Malaysia) at OLKIT (ATS Route M758) from the Singapore FIR, without being detected. This LHD was subsequently classified as Category E.

2.16 During 2019, risk associated with the Manila FIR (the Philippines) was **0.35 x 10^{-9}**, which accounted for 24% of SEA total operational risk. This was a major reduction in risk since 2017/2018, which was assumed to be largely due to the modernization of the Manila Area Control Centre (ACC).

Indonesian Airspace

2.17 The MAWG/7 was advised that a preliminary assessment had determined that the TLS for the Indonesian airspace had been achieved during the first half of 2019, but worsened in the second half of the year (**Table 1** and **Figure 10**).

Source of risk	Risk estimate	TLS	TLS Comparison
RASMAG/24 total risk	*2.94×10^{-9}*	*5.0×10^{-9}*	*Below TLS*
Technical risk	0.222×10^{-9}	2.5×10^{-9}	Below technical TLS
Operational risk	7.05×10^{-9}	-	-
Total risk	**7.27×10^{-9}**	5.0×10^{-9}	**Above total TLS**

Table 1: Indonesian FIR RVSM Risk Estimates, 01 December 2018 – 30 November 2019

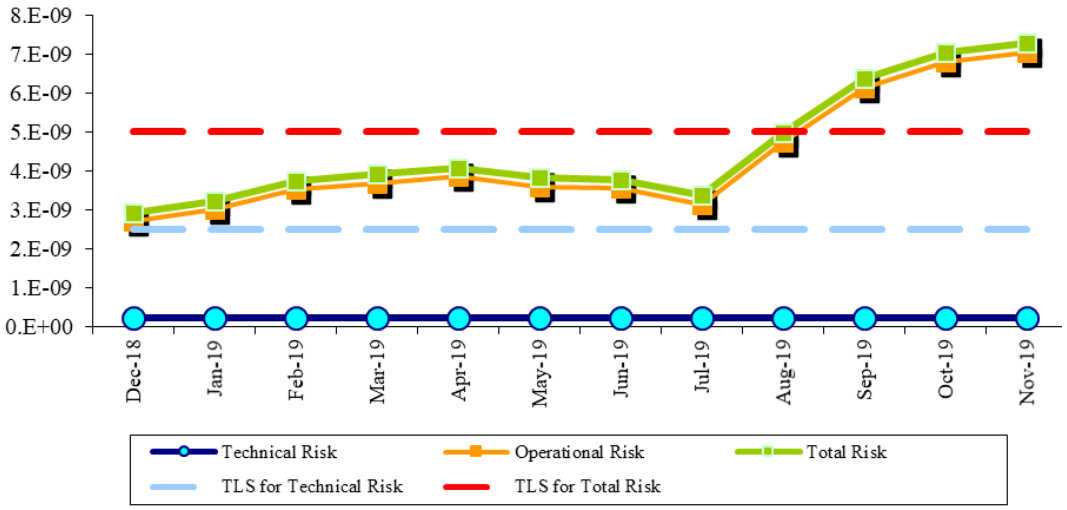

Figure 10: Indonesian FIR RVSM Risk Estimates, 01 December 2018 – 30 November 2019

2.18 MAWG/7 noted that this increase could be attributed to a more proactive reporting culture. However, while it was noted that while the Ujung Pandang Flight Information Region (FIR) had reported internal Large Height Deviations (LHDs) well within the FIR boundaries, no such report had been received from the Jakarta FIR.

2.19 The MAWG/7 had noted an analysis of category E (*coordination errors in the ATC-to-ATC transfer of control responsibility as a result of human factors issues*) events that had occurred within the Jakarta and Ujung Pandang Flight Information Regions (FIRs) by the Australian Airspace Monitoring Agency (AAMA).

2.20 There had been a total of 24 non-nil (risk bearing) LHDs in the period 1 December 2018 to 30 November 2019 (**Figure 11**). Of these, 17 (70.8%) were Category E LHDs, with the majority (12) involving neighbouring air navigation service providers (ANSPs). This highlighted the opportunity to collaborate with ANSPs to periodically review this type of occurrence and jointly assess the causal factors and possible risk mitigation measures.

2.21 Of the 12 occurrences, the transferring unit was Singapore (accepting unit Jakarta) six times. Manila (2), Kota Kinabalu (2), Kuala Lumpur (1), and Chennai (1) made up the remainder of the count. In addition, there were 26 Category E LHDs that were reported to AAMA, which were assessed as bearing no risk in Indonesian RVSM airspace.

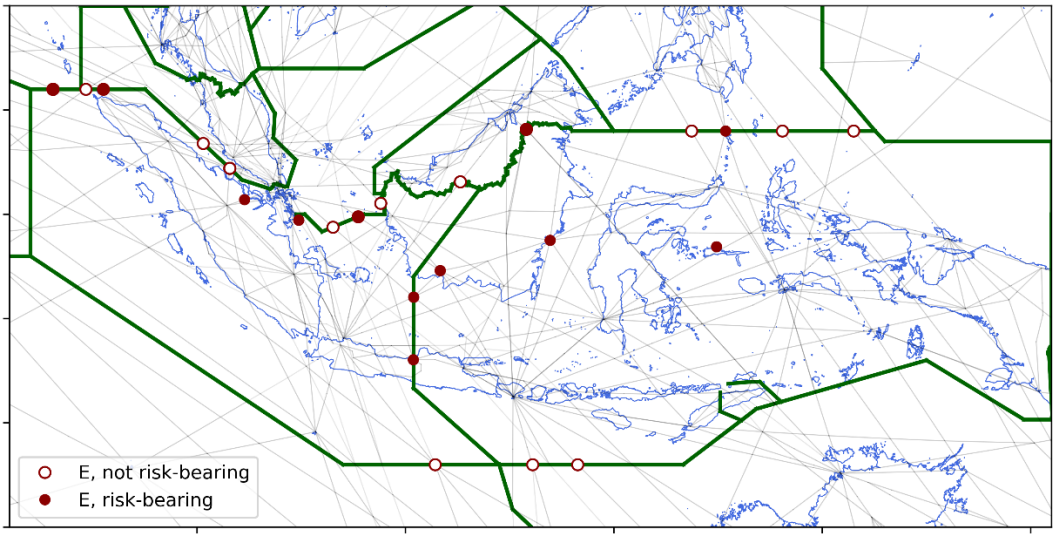

Figure 11: Category E LHD Locations – 01 December 2018 to 30 November 2019

2.22 Of the 17 risk-bearing Category E LHDs in Jakarta and Ujung Pandang FIRs during the period 1 December 2018 to 30 November 2019, five involved a late flight level revision by the transferring unit, which was not coordinated with the accepting unit. In one of these occurrences, the accepting unit (Ujung Pandang) confirmed the level with the transferring unit (Jakarta), but the aircraft had already crossed the FIR boundary. Thus, the occurrence was assessed as risk-bearing.

2.23 Three occurrences involved no transfer information being given (‘negative transfer’).

2.24 Nine occurrences involved the incorrect flight level information being given to the accepting unit. In one of these occurrences, the information was initially correct. However, the accepting unit (Jakarta) read back the incorrect level, which the transferring unit (Ujung Pandang) subsequently confirmed. In other words, a coordination error was created via incorrect readback.

2.25 MAWG/7 noted that recently, AAMA had been working with AirNav to improve the accuracy of reported information.

Regional RVSM Assessment

2.26 ICAO provided a regional safety monitoring assessment summary. **Figure 12** illustrated the state of Asia/Pacific RVSM TLS compliance, as reported to RASMAG/24:

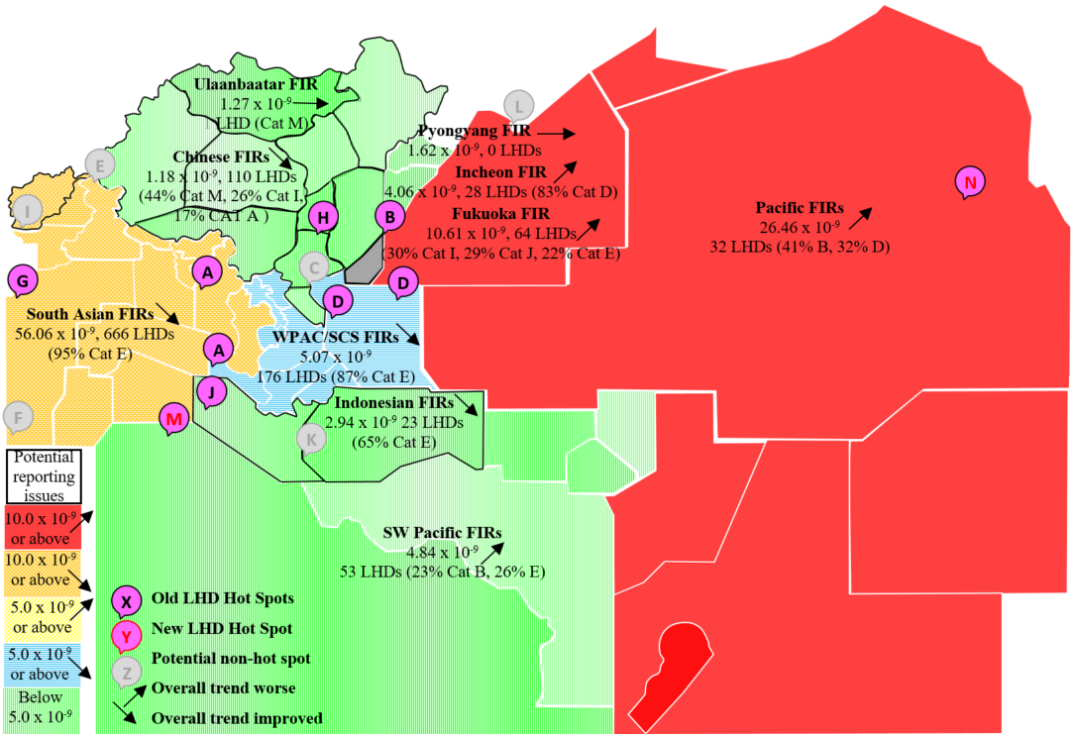

Figure 12: Asia/Pacific RVSM TLS compliance reported to RASMAG/24

2.27 **Table 1** provided a comparison of Asia/Pacific RVSM risk as a measure against the TLS by grouped FIRs, according to the RMA responsibilities for airspace. Over the past five years (2014 – 2018), the performance of Asia/Pacific in compliance with the TLS for RVSM had been poor overall, averaging 37% when measured by the grouped FIRs. However, of the 18 FIRs that achieved TLS, 11 FIRs had potential reporting issues (discussed later in this paper), and five were operating just under the TLS, with an upward trend.

2.28 Therefore, measures taken to improve adherence to the TLS in the past five years may have yielded localised improvements, but overall had failed to produce a positive result for the Asia/Pacific Region (APAC) as a whole.

	RASMAG20	RASMAG21	RASMAG22	RASMAG23	RASMAG24
FIRs	53%	32%	51%	16% (8 FIRs)	37% (18 FIRs)

Table 1: Comparison of Regional RVSM TLS Achievement

Non-RVSM Approved Aircraft

2.29 There had been a significant overall dramatic reduction of non-RVSM airframes detected from 115 in 2017 to 38 in 2018. This could be attributed to the effort of all RMAs, and Conclusion APANPIRG/28/12 *Management of Non-RVSM Aircraft*.

RMA Monitoring Burden

2.30 RASMAG/24 had noted that all RMAs had been either reducing their monitoring burden or the burden was relatively stable, except the China RMA, which had increased from 36 to 107 airframes.

2.31 **Table 2** indicated States that had relatively high remaining monitoring burdens over 30%, as reported to RASMAG/24:

State	2017%	Requirement	Burden	2018%
Pakistan (MAAR)	69%	32	18	56%
Malaysia (MAAR)	38%	53	21	40%
Afghanistan (MAAR)	38%	11	4	36%

Table 2: Comparison of State Monitoring Burden

2.32 **Table 3** provides a summary of the identified Hot Spots reviewed by RASMAG/24.

Hot Spot	Involved FIRs	Identified	Remarks
A1	Kolkata/Dhaka – Yangon;	2015	LHDs increased, risk bearing
A2	Chennai – Kuala Lumpur	2015	LHDs reduced
B	Incheon	2015	AKARA Corridor
C	Hong Kong – Guangzhou	2015	Potential non-hot spot
D	Manila – all adjacent FIRs	2015	Increase of LHDs to Fukuoka
E	Lahore – Urumqi	2015	Potential non-hot spot
F	Mogadishu – Mumbai	2015	Potential non-hot spot
G	Sana'a/Muscat – Mumbai	2015	LHDs increasing (Cat. E)
H	Guangzhou – Wuhan	2015	Hong Kong/Sanya reduction
I	Karachi – Kabul	2018	Potential non-hot spot
J	Jakarta – Singapore/Kota Kinabalu	2018	Minor, Cat. E LHDs
K	Jakarta – Ujung Pandang	2018	Potential non-hot spot
L	Fukuoka – Khabarovsk	2018	Potential non-hot spot
M	Colombo - Melbourne	2019	New; Cat. A, B and E LHDs
N	Oakland USA – Hawaii CEP	2019	New; Cat. A, B and D LHDs

Table 3: Comparison Summary of LHD Hot Spots

Regional Horizontal TLS Compliance

2.33 During RASMAG/24, all the Asia/Pacific En-Route Monitoring Agency (EMAs) reported horizontal risk assessments that met the TLS of 5.0×10^{-9} (**Table 4**):

ATC Separation	EMA	2017 Estimated Risk	2018 Estimated Risk
50NM Lateral	BOBASMA	2.21×10^{-9}	2.05×10^{-9}
	JASMA	0.04×10^{-9}	0.05×10^{-9}
	PARMO	0.57×10^{-9}	-
	SEASMA	0.37×10^{-9}	0.52×10^{-9}
30NM Lateral	PARMO	1.08×10^{-9}	0.16×10^{-9}
50NM Longitudinal	BOBASMA	4.30×10^{-9}	4.21×10^{-9}
	PARMO	2.22×10^{-9}	2.22×10^{-9}
	SEASMA	0.38×10^{-9}	0.38×10^{-9}
30NM Longitudinal	BOBASMA	0.02×10^{-9}	-
	JASMA	0.004×10^{-9}	0.001×10^{-9}
	PARMO	4.08×10^{-9}	4.08×10^{-9}
10-minute longitudinal	JASMA	0.95×10^{-9}	0.14×10^{-9}

Table 4: Comparison of Horizontal Risk Assessments

Safety Reporting

2.34 RASMAG/24 had noted that the rate of reported LHDs per hour was very low in Indonesia and Mongolia, which was an indication of issues with their reporting culture.

2.35 RASMAG/24 had noted that the Monitoring Agency for the Asian Region (MAAR) had reported a significant number of LHDs over continental Indian airspace – a tripling of reports from 2018, presumably as a result of BOBASMA's efforts to enhance the reporting culture in India. MAAR had observed that the increase in LHD reported within South Asian FIRs was mostly along FIR boundaries, stating:

> *In most cases, ATCO report LHDs only when they are affected by mistakes made by ATCO in their neighbouring FIRs. However, in 2018, the MAAR started to receive LHD reports which occurred inside an FIR. India and other South Asian States are urged to continue this effort.*

2.36 MAAR also confirmed a lack of LHD reports during 2018 from Afghanistan, which had reported regularly during 2017.

2.37 **Figure 12** provided an overview of the proportion of Category E (ATC – ATC Transfer Errors) over the period 2016 – 2018.

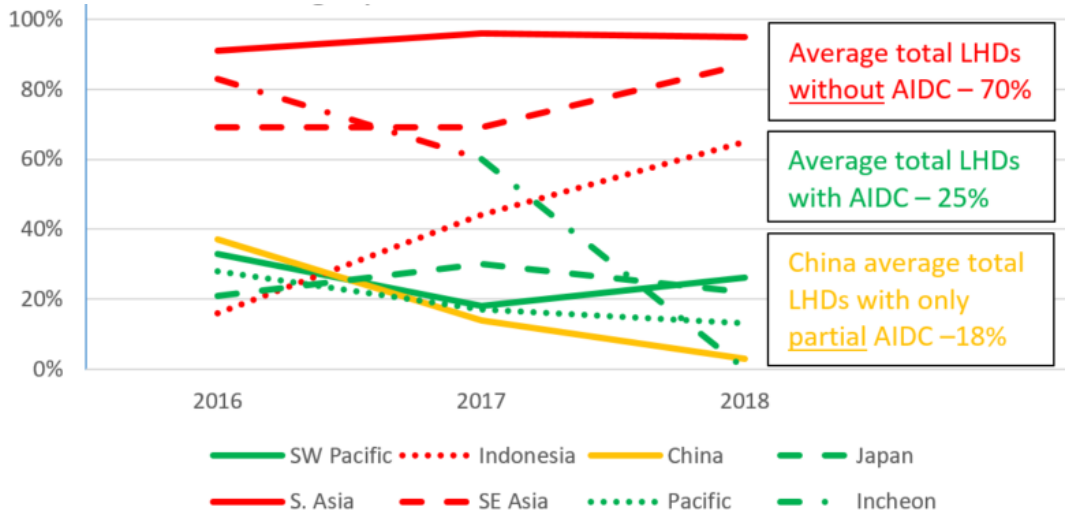

Figure 12: Comparison of Category E LHDs, 2016 - 2018

2.38 **Figure 12** indicated a strong relationship between those ANSPs that had implemented AIDC, with an average of 25% of Category E LHDs. There was also a good relationship between those ANSPs that had not implemented AIDC, which averaged 70%. This data quantifies the major improvement in safety that had resulted from the use of AIDC to reduce human error.

2.39 ICAO provided a comparison of the inconsistency of LHDs being reported to MAAR and those being reported by Indonesia. AAMA had reported only a few LHDs on the northern boundary of Indonesian airspace during 2018. However, in the same period MAAR had reported numerous LHDs on the same boundary (Singapore and Malaysian airspace).

2.40 RASMAG/24 had recognised that it was always difficult to compare reporting rates between States. However, the methods used to analyse the data had successfully highlighted poor reporting in the past, and after action by States the reporting had changed dramatically. In 2018's analysis, the data had indicated that India had partly improved its reporting, while there were probable reporting issues indicated in Afghanistan, China, Indonesia and Mongolia.

2.41 RASMAG/24 had noted that it was appropriate to remind States, even those which had taken significant positive steps to improve reporting, to continually monitor their reporting culture and systems to optimise reporting. Experience from developed nations had shown that educating operational personnel was not enough to achieve the open reporting objective of the 'aviation culture', as described

in the *Asia/Pacific Seamless ATM Plan*.

2.42 RASMAG/24 had recalled that a Working Paper had been presented in 2017 on RASMAG safety concerns such as safety reporting at the Eleventh Meeting of the Asia Pacific Regional Aviation Safety Team (APRAST/11, Bangkok, Thailand, 20 – 24 November 2017), which included reference to ***Conclusion RASMAG22-12: Airspace Safety Reporting Policy Survey*** and cultural factors affecting reporting from the Asia/Pacific Seamless ATM Plan (**Figure 13**):

Figure 13: Optimal Aviation Culture Factors (*Asia/Pacific Seamless ANS Plan* V3.0)

Guidance Material

2.43 Thailand had submitted the final draft of the Guidance Material for the Continued Safety Monitoring of the Asia-Pacific RVSM Airspace. RASMAG/24 agreed to endorse the Guidance Material, and replace the Asia/Pacific Regional Statement RVSM Global Long Term Height Monitoring Requirements effective from November 2010 with the new guidance material, in accordance with the following Conclusion:

Conclusion RASMAG/24-4: Guidance Material for the Continued Safety Monitoring of the Asia-Pacific RVSM Airspace

2.44 The United States had provided an overview of the role of RMAs in the PBCS monitoring programme. The methods by which monitoring agencies would satisfy some requirements of the monitoring program was discussed. Modified forms and templates developed to accommodate data collection necessary to support PBCS-related tasks and a recommended approach to documenting the role of monitoring agency support to the monitoring program and development of guidance material. RASMAG/24 had agreed to the following Conclusion:

Conclusion RASMAG/24-5: Verification of RCP and RSP Capabilities Filed in the Flight Plan

Monitoring Agencies Terms of Reference (ToR)

2.45 RASMAG/24 had also agreed to the following Conclusion to establish monitoring agency Terms of Reference (ToRs):

Conclusion RASMAG/24-6: Establishment of Asia Pacific Monitoring Agency ToRs

RASMAG ANS Deficiencies

2.46 RASMAG/24 had reviewed the airspace safety-related APANPIRG Deficiencies, which were consolidated into the ATM-AIS-SAR Deficiency Table (**Attachment A**).

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information contained in this paper;

b) discuss the elevated vertical safety risks in South Asia;

c) note the reduction in reported non-RVSM airframes operating within RVSM airspace;

d) discuss the safety reporting issues identified by RASMAG as appropriate; and

e) discuss any other relevant matters as appropriate.

…….

ATM/AIM/SAR Deficiencies List (Updated 06 November 2019)

	Deficiencies			Corrective Action		
States/facilities	**Description**	**Date first reported**	**Remarks**	**Executing body**	**Target date**	**Priority ****
	<u>Non Provision of Safety-related Data</u> Requirement of Paragraph 3.3.5.1 of Annex 11 (provision of data for monitoring the height-keeping performance of aircraft) and APANPIRG Conclusion 16/6 – Non Provision of safety related data by States					
Afghanistan	Non-provision of safety related data	12/07/2019	Failure to submit Kabul LHD data for January-December 2018	Afghanistan	RASMAG24	U
Bangladesh	Non-provision of safety related data	12/07/2019	Failure to submit the 2018 TSD. Failure to submit Dhaka LHD data for January-December 2018	Bangladesh	RASMAG24	U
Bhutan	Non-provision of safety related data	12/07/2019	Failure to submit the annual RVSM approval snapshot for two consecutive years	Bhutan	RASMAG24	U
French Polynesia	Non-provision of safety related data	05/07/2018	Failure to submit the 2016, 2017 and 2018 TSD	French Polynesia	RASMAG23	A
Lao PDR	Non-provision of safety related data	13/07/2017	Failure to submit the annual RVSM approval snapshot for four consecutive years	Lao PDR	RASMAG23	A
Pakistan	Non-provision of safety related data	12/07/2019	Failure to submit Karachi LHD data for July-December 2018. Late submission of 2018 Karachi TSD	Pakistan	RASMAG24	U
	State Responsibility to comply with the Annex 6 Height-Keeping Monitoring Requirement Annex 6 Part I Section 7.2.9 (10th Ed.) and Part II Section 2.5.2.10 (9th Ed.)					
Afghanistan	Non-compliance with LTHM requirement (remaining monitoring burden more than 30%)	RASMAG/ 23	Remaining monitoring burden of 38% reported in RASMAG/23	Afghanistan	RASMAG24	A

	Deficiencies			Corrective Action		
States/facilities	**Description**	**Date first reported**	**Remarks**	**Executing body**	**Target date**	**Priority ****
Malaysia	Non-compliance with LTHM requirement (remaining monitoring burden more than 30%)	RASMAG/ 23	Remaining monitoring burden of 38% reported in RASMAG/23	Malaysia	RASMAG24	A
Pakistan	Non-compliance with LTHM requirement (remaining monitoring burden more than 30%)	RASMAG/ 22	Remaining monitoring burden of 69% reported in RASMAG/23 RASMAG24 56%	Pakistan	RASMAG24	A
	Data Link Performance Monitoring and Analysis Requirements of Paragraph 2.28 and/or 3.3.5.2 of Annex 11 not met					
Fiji	Post-implementation monitoring not implemented	25/06/2018	Problem reports not provided to CRA. RASMAG24	Fiji	TBD	A
India	Post-implementation monitoring not implemented	13/07/2017	Performance monitoring and analysis was reported for the Chennai FIR, but was not reported for the Kolkata and Mumbai FIRs.	India	TBD	A
Maldives	Post-implementation monitoring not implemented	29/5/2015	Problem Reports not provided to CRA. Performance monitoring and analysis not reported to FIT.	Maldives	TBD	A
Myanmar	Post-implementation monitoring not implemented	29/5/2015	Problem Reports not provided to CRA.	Myanmar	TBD	A

** Note: In accordance with the *APANPIRG Handbook - Asia/Pacific Supplement to the Uniform Methodology for the Identification, Assessment and Reporting of Air Navigation Deficiencies*, priority for Air Navigation Deficiencies is guided by the principle that a deficiency with respect to an ICAO Standard is accorded a "U" status, while a non-compliance with a Recommended Practice or a PANS is considered as "A" or "B" subject to additional expert evaluation. The final prioritization of deficiencies is the prerogative of APANPIRG.