International Civil Aviation Organization

Tenth Meeting of the Air Traffic Management Sub-Group (ATM/SG/10) of APANPIRG

Video Teleconference, 17 – 21 October 2022

Agenda Item 6:   ATM Coordination (Meetings, Route Development, Contingency Planning)

OUTCOMES OF THE MEKONG ATM COORDINATION GROUP

(Presented by Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam and IATA)

SUMMARY

This paper presents outcomes of the Ninth Meeting of the Mekong ATM Coordination Group (MK-ATM-CG/9) held virtually on 21 – 23 September 2022.

1.   INTRODUCTION

1.1   The Mekong ATM Coordination Group was established to discuss and collaborate on ATM coordination issues focusing on the region surrounding the Mekong River with agreed annual meetings. The latest meeting of the group was held virtually on 21 – 23 September 2022.

1.2   Delegates from Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam, ICAO and IATA participated in the meeting.

2.   DISCUSSION

2.1   The MK-ATM/CG/9 meeting reviewed outcomes of related meetings with each Member State updated the group on traffic statistics as reflected in the meeting report in **Attachment A**. Documents related to the meeting can be downloaded from <https://bit.ly/MK-ATM-CG-9>.

Route Structure Review & ATS Coordination

2.2   The meeting discussed several route structure enhancement agreed to in previous Mekong ATM Coordination Group Meetings, while tasking members to provide update before the next meeting. (More details from meeting report Action Items 9/1 – 9/9: **Attachment A**)

2.3   The meeting was reminded by a route proposal from ICAO APAC ATS Route Catalog, which would be discussed at ATM/SG/10 meeting and requested members to study proposals in the ICAO APAC ATS Route Catalog as well as providing updates during the next meeting.

2.4   The meeting congratulated Member States for having implemented route structure agreed to in previous meetings including

    a)   implementation of 20NM longitudinal spacing on ATS routes A1 and A202 (Mar 2020)

    b)   parallel route structure supplementing G474 and R468 (October 2020); and,

    c)   NOHET – UDN Conditional Route (Jan 2021)

2.5   The meeting discussed operational issues related to Flight Level Allocation Scheme (FLAS) for A1 and B202, tasking Member States to further study and provide updates prior to the next meeting. (More details from meeting report Action Item 9/11: **Attachment A**)

ATFM Matters

2.6   Lao PDR presented ATFM service development plan with support from Thailand.

2.7   Thailand presented ATFM service update from the Asia-Pacific Cross-Border Multi-Nodal ATFM Collaboration (AMNAC), BOBCAT operational updates, updated ICAO APAC Regional Framework for Collaborative ATFM (subject of ATFM/SG outcomes WP to ATM/SG/10), ICAO APAC Regional ATFM Implementation Status and non-receipt of DEP messages information.

Surveillance Service Development

2.8   Lao PDR and Thailand presented surveillance service development plans including surveillance data sharing. In response to the situation where it is unclear when ADS-B surveillance would obtain regulatory approval for implementation as ATS surveillance service, Mekong Member States were referred to latest edition of the ADS-B Implementation and Operations Guidance Document (AIGD), which was subject of recent Conclusion CNS/SG/26/12 from CNS/SG/26 meeting (Sep 2022).

2.9   In response to discussion to discussion on benefits of A1000 Conspicuity Code, the meeting realized that current ATM Automation System may not have the functionality to fully support A1000 Conspicuity Code to alleviate SSR Mode A/C Squawk Code shortage situation. Accordingly, Conclusion 9/2 was adopted for Member States to review A1000 Conspicuity Code in their ATM Automation System and jointly request functionality from the ATM Automation System vendor.

ATM Contingency Planning

2.10   In response to discussion on TIBA frequency to be included in ATM Contingency Plan, the meeting was reminded of APANPIRG Conclusion 13/7 from APANPIRG/13 (2002) stating 128.95 MHz as the designated radiotelephony frequency for TIBA, which may not have been integrated into Regional Supplementary Procedures (Doc 7030). The meeting was further referred to TIBA procedures in Annex 11, Attachment B and ICAO APAC Regional ATM Contingency Plan.

Next Mekong ATM Coordination Group Meeting

2.11   As per agreement in previous Mekong ATM Coordination Group meetings, Lao PDR will host the next MK-ATM/CG meeting in 2023.

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.

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REPORT

OF

THE NINTH MEKONG AIR TRAFFIC MANAGEMENT

COORDINATION GROUP MEETING

(MK-ATM/CG/9)

Virtual, 21-23 September 2022

The views expressed in this Report should be taken as those of the
Meeting and not the Organizations.

Table of Content

History of the Meeting

1.1. Introduction

1.1.1. The Mekong ATM Coordination Group (MK-ATM/CG) was established to ensure inter-regional harmonization, accelerate cooperative initiatives among its membership in order to enhance flight efficiency while maintaining safe, expeditious flow of traffic with the goal of providing seamless and harmonized air traffic management service. The MK-ATM/CG Membership include Aviation Regulator and Air Navigation Service Providers (ANSPs) from Cambodia, Lao PDR, Myanmar, Thailand and Viet Nam, supported by partners including, but not limited to airlines and airspace users in States mentioned.

1.1.2. The MK-ATM/CG meeting was originally held as "ATS Coordination Meeting" among Cambodia, Lao PDR, Thailand and Viet Nam with previous meetings held in Cambodia (2006), Thailand (2008) and Lao PDR (2009) respectively. The previous meetings discussed ATM coordination issues focusing the region surrounding the Mekong River.

1.1.3. Previous Mekong ATM Coordination Group Meetings were held in Chonburi, Thailand (2011), Bangkok, Thailand (2013), Da Nang, Viet Nam (2014), Siem Reap, Cambodia (2015), Vientiane, Lao PDR (2016), Yangon, Myanmar (2017), Chiang Mai, Thailand (2018), and Da Lat, Viet Nam (2019).

1.1.4. The Ninth Mekong ATM Coordination Group Meeting (MK-ATM/CG/9) was hosted online by AEROTHAI (Thailand) on 21 – 23 September 2022.

1.2. Officers, Secretariat and Participants

1.2.1. The meeting was chaired by Mr. Suvichan Sathitkitpichet, Director, Network Operations Air Traffic Management Center. Mr. Piyawut Tantimekabut, Air Traffic Management Network Manager, AEROTHAI served as Leader of Secretariat Team of the Meeting, supported by Ms. Prapasara Kongsawat, Corporate Relations Manager, AEROTHAI; Ms. Nandawan Simakulthorn, Corporate Relations Assistant Manager; Mr. Thanupont Saowasang, Executive Corporate Relations Officer, AEROTHAI and Ms. Puntaree Suwan, Executive Corporate Relations Officer, AEROTHAI.

1.2.2. Total of 87 (eighty-seven) participants, from Cambodia (State Secretariat of Civil Aviation: SSCA, Cambodia Air Traffic Services Co., Ltd.: CATS), Lao PDR (Department of Civil Aviation of Lao PDR: DCAL and Lao Air Navigation Services: LANS), Thailand (Civil Aviation Authority of Thailand: CAAT, Aeronautical Radio of Thailand: AEROTHAI), Viet Nam (Civil Aviation Authority of Viet Nam: CAAV, Viet Nam Air Traffic Management Corporation: VATM), ICAO and IATA attended the meeting. List of participants can be found in **Appendix A**.

1.3. Opening of the Meeting

1.3.1. Dr. Nopasit Chakpitak, President, AEROTHAI, welcomed all delegates to the Nineth Mekong Air Traffic Management Coordination Group Meeting (MK-ATM/CG/9). He pointed out AEROTHAI's aim to drive and continue the support in ATM service development in the Asia Pacific region, Mekong sub-region in particular. With the post-COVID-19 traffic recovery, where both domestic and international flights are picking up pace due to the travel pent-up demand, the smooth cooperation and interoperability of ATM including ATS, ATFM and ASM was even more important than ever. He ended his speech by emphasizing AEROTHAI's unwavering support to the achievements of Mekong ATM Coordination Group and its commitment to the progress and collaborations among the Mekong countries.

1.3.2. Dr. Nopasit's remarks was followed by Mr. Tinnagorn Choowong, Executive Vice President (Operations), AEROTHAI. He extended a warm welcome to all delegates to the MK-ATM/CG/9 meeting and thanked everyone's uninterrupted support. He also expressed his appreciation to the Mekong Member States for their continued support that was essential to maintain this collaboration momentum, which would ensure a smoother and well-oiled ATM service, well-coordinated ATS, functional Cross-Border ATFM and ASM in our region. He was proud to be an integral part of the progress of the Mekong sub-region up until now as he took the opportunity to bid farewell to the aviation friends and to the AEROTHAI family since he would be retiring at the end of September 2022.

1.4. Documentation and Working Language

1.4.1. The meeting was conducted in English. All meeting documentation was in English.

1.4.2. A set of presentation slides was prepared as to support deliberation of the meeting.

1.4.3. All related meeting documents can be downloaded from: https://bit.ly/MK-ATM-CG9.

Summary of Conclusions:

Conclusion 9/1: Review MK-ATM/CG Task List At Subsequent Mekong Meetings

The meeting agreed to review and update MK-ATM/CG Task List in its next meetings.

Conclusion 9/2: A1000 Conspicuity Code in ATM Automation System

The meeting agreed to review A1000 Conspicuity Code Functionality in their ATM Automation System and jointly request functionality from ATM Automation System vendor to alleviate SSR Mode A/C code shortage.

Summary of Action Items:

Action Item 9/1: Review ICAO ATS Route Catalogue

The meeting tasked all Mekong Member States to:

1) actively review ICAO Asia/Pacific Region ATS Route Catalogue which is published and maintained up-to-date by the ICAO Asia/Pacific Regional Sub-Office. The most recent version of the Catalogue is available at ICAO Asia/Pacific Regional Office e-Documents webpage; and

2) report the review progress updates to the next Mekong meetings.

Action Item 9/2: Follow-Up Implementation of BIMT Route Structure Phase 2b

The meeting tasked Thailand, supported by Myanmar, to provide updates on implementation of BIMT Route Structure Phase 2b to next Mekong meeting.

Action Item 9/3: Study HX-KATBO Route Proposal

The meeting tasked Viet Nam, in coordination with China, to study HX-KATBO route proposal and provide updates to the next Mekong meeting.

Action Item 9/4: Study Route Proposals from AKSAG to Myanmar

The meeting tasked Viet Nam and Myanmar to study route proposals from AKSAG to Myanmar and provide updates to the next Mekong meeting.

Action Item 9/5: Study VPH-ROT-SRE Route Proposal

The meeting tasked Viet Nam, Thailand and Lao PDR to continue studying VPH-ROT-SRE route proposal with Viet Nam providing the study result to the next Mekong meeting.

Action Item 9/6: Study TUNPO-BASIT Route Proposal

The meeting tasked Viet Nam, Cambodia and Thailand to continue studying TUNPO-BASIT route proposal with Viet Nam providing updates to the next Mekong meeting.

Action Item 9/7: Parallel Route Structure Supplementing A1 and A202

The meeting tasked Viet Nam to provide update on planned usage of parallel route structure supplementing A1 and A202, providing update prior to the next Mekong meeting.

Action Item 9/8: Study VLPS – VVTS Route Structure via Phnom Penh FIR

The meeting tasked Cambodia, Lao PDR and Viet Nam to continue studying VLPS – VVTS route structure via Phnom Penh FIR and provide updates to the next Mekong meeting.

Action Item 9/9: Study VVTS – VVNB Route Structure via Phnom Penh FIR and Vientiane FIR

The meeting tasked Cambodia, Lao PDR and Viet Nam to continue studying VVTS – VVNB route structure via Phnom Penh FIR and Vientiane FIR and provide updates to the next Mekong meeting.

Action Item 9/10: Coordinate and Resolve Non-Receipt of DEP Message

The meeting tasked Mekong Member States to actively coordinate and carry out corrective actions to resolve non-receipt of DEP message and provide updates to the next Mekong meeting.

Action Item 9/11: A1 and B202 Flight Level Allocation Scheme (FLAS)

The meeting tasked Cambodia, Lao PDR, Thailand and Viet Nam to review Flight Level Allocation Scheme for A1 and B202 with the objective of providing update to the next Mekong meeting.

Agenda Item 1: Adoption of Agenda

The meeting adopted the following agenda:

Agenda Item 1:   Adoption of Agenda
Agenda Item 2:   Review of Related Meetings
Agenda Item 3:   Information Sharing
Agenda Item 4:   Air Traffic Management (ATM)
        4.1. Airspace Management (ASM)
        4.2. Air Traffic Flow Management (ATFM)
        4.3. ATS Coordination
Agenda Item 5:   CNS Infrastructure
        5.1. Surveillance Service Development
        5.2. ATS Inter-Facility Data Communication (AIDC)
Agenda Item 6:   ATS Operational Contingency Plan
Agenda Item 7:   Future Plan
Agenda Item 8:   Any Other Businesses
Agenda Item 9:   Date and Venue of the next meeting

Agenda Item 2: Review of Related Meetings

Secretariat Team reviewed outcomes of related meetings *(Presentation 2.1)* including the Eighth Mekong ATM Coordination Group Meeting (MK-ATM/CG/8), the Thirty-Second Meeting of The Asia/Pacific Air Navigation Planning Implementation Regional Group (APANPIRG/32), the Fifth Meeting of the Aerodrome Operations Planning Sub-Group of APANPIRG (AOP/SG/5), the Ninth Meeting of the ATM Sub-Group of APANPIRG (ATM/SG/9), the Twenty-Sixth Meeting of the Communications, Navigation and Surveillance Sub-Group of APANPIRG (CNS/SG/26), the Twenty-Seventh Meeting of the Regional Airspace Monitoring and Advisory Group (RASMAG/27) and the Twelfth Meeting of the Air Traffic Flow Management Steering Group (ATFM/SG/12).

Thailand presented information on ICAO APAC SWIM Task Force Progress. *(Presentation 2.2)*

Agenda Item 3: Information sharing

Cambodia *(IP 3.1),* Lao PDR *(IP 3.2),* Myanmar *(Presentation 3.3)* and Thailand *(Presentation 3.4)* shared information on traffic growth updates, which still indicated traffic volume below pre-COVID-19 levels in 2019

IATA shared information on COVID-19 impact, recovery forecasts and impact of recent contingency situations on airline operations *(Presentation 3.5).*

In addition, IATA shared information on airline fleet survey *(Flimsy 3.6).* It is noted that GBAS/SBAS capability & plans are not very high. Accordingly, Mekong Member States should consider current and planned fleet equipage when considering GBAS/SBAS implementation, with the intent of providing positive cost-benefit to the aviation community.

Agenda Item 4: Air Traffic Management (ATM) Matters

4.1. Airspace Management (ASM)

4.1.0.   <u>MK-ATM-CG/8 Route Structure Action Items</u> *(Presentation 4.1.0)*

The meeting reviewed Route Structure Action Items from MK-ATM-CG/8 as follows:

- **Action Item 8/1:** ICAO ATS Route Catalog:

IATA reminded Viet Nam of route proposal SCS 11, which was coordinated with Malaysia. Viet Nam informed the meeting of their internal discussion of the route segment VKR – BITOD, but they are not aware of the additional route segment IPRIX – VIGEN proposed. IATA informed the meeting that the route segment IPRIX – VIGEN proposed would help reduce turning from IPRIX – BITOD – VIGEN. The revised route proposal is expected to be discussed at ATM/SG/10 meeting in Oct 2022.

The meeting agreed to keep the Action Item related to ICAO ATS Route Catalog as a recurring **Action Item 9/1** for discussion at MK-ATM/CG/10.

- **Action Item 8/2:** NOHET – UDN: implemented as unidirectional conditional route M648 in January 2021

- **Action Item 8/3:** BIMT Route Structure Phase 2b: pending due to current situation in Myanmar, to be reported to the MK-ATM-CG/10 meeting as **Action Item 9/2**.

- **Action Item 8/4:** Parallel Route Structure Supplementing G474/R468: implemented as L880, M663, N506 and P629 in October 2020

- **Action Item 8/5:** VPH – ROT – SRE: further discussed in 4.1.1

- **Action Item 8/6:** TUNPO – BASIT: further discussed in 4.1.1.

- **Action Item 8/7:** HX – KATBO: Viet Nam agrees to the proposal but have no information from China. The Action Item is renamed **Action Item 9/3** for further updates in MK-ATM/CG/10.

- **Action Item 8/8:** AKSAG – Myanmar: Viet Nam and Myanmar agree to provide further update to the next meeting in **Action Item 9/4**.

- **Action Item 8/12:** A1/A202 20NM Longitudinal Spacing: implemented on 26 Mar 2020 as reported to ICAO SEACG/27 (Mar/Apr 2020)

The meeting congratulates Mekong Member States on achieving operationalization of route structures in **Action Item 8/2**, **Action Item 8/4** and **Action Item 8/12**.

The following Action Items carried over for reporting into MK-ATM/CG/10:

Action Item 9/1: Review ICAO ATS Route Catalogue

The meeting tasked all Mekong Member States to:

1) actively review ICAO Asia/Pacific Region ATS Route Catalogue which is published and maintained up-to-date by the ICAO Asia/Pacific Regional Sub-Office. The most recent version of the Catalogue is available at ICAO Asia/Pacific Regional Office e-Documents webpage; and

2) report the review progress updates to the next Mekong meetings.

Action Item 9/2: Follow-Up Implementation of BIMT Route Structure Phase 2b

The meeting tasked Thailand, supported by Myanmar, to provide updates on implementation of BIMT Route Structure Phase 2b to next Mekong meeting.

Action Item 9/3: Study HX-KATBO Route Proposal

The meeting tasked Viet Nam, in coordination with China, to study HX-KATBO route proposal and provide updates to the next Mekong meeting.

Action Item 9/4: Study Route Proposals from AKSAG to Myanmar

The meeting tasked Viet Nam and Myanmar to study route proposals from AKSAG to Myanmar and provide updates to the next Mekong meeting.

4.1.1.   Route Structure Review – Thailand *(Presentation 4.1.1)*

Thailand presented route structure review as follows:

- Parallel Route Structure Supplementing G474/R468: implemented as L880, M633, N506 and P629 in October 2020 (**Action Item 8/4** refers)

- Unidirectional Conditional Route NOHET – UDN: implemented as M648 in January 2021

- VPH – ROT (**Action Item 8/5** refers)

Thailand informed the meeting of that the route structure could be implemented as conditional route within Thai airspace.

Lao PDR principally agreed to the route proposed.

IATA supported establishment of the route.

Viet Nam expressed concern of route vicinity to military areas near Ha Noi. Viet Nam will further study the route proposal and provide update prior to the MK-ATM/CG/10 meeting under **Action Item 9/5**.

Action Item 9/5: Study VPH-ROT-SRE Route Proposal

The meeting tasked Viet Nam, Thailand and Lao PDR to continue studying VPH-ROT-SRE route proposal with Viet Nam providing the study result to the next Mekong meeting.

- TUNPO – BASIT – UPNEP: (**Action Item 8/6** refers)

Cambodia expressed support of the route proposed.

Viet Nam needed to seek approval from appropriate authority and will provide update prior to the next MK-ATM/CG meeting under **Action Item 9/6**.

Action Item 9/6: Study TUNPO-BASIT Route Proposal

The meeting tasked Viet Nam, Cambodia and Thailand to continue studying TUNPO-BASIT route proposal with Viet Nam providing updates to the next Mekong meeting.

- A1/P901 Unidirectional Parallel Route Structure:

Viet Nam continued to express concern on traffic overlying the Danang Airport and concern on the need to coordinate inbound flights with military authorities, which is already required under current route structure.

The meeting agreed to continue discussion of A1/P901 Unidirectional Parallel Route Structure under **Action Item 9/7** among Mekong Route Structure Focal Points below.

Action Item 9/7: Parallel Route Structure Supplementing A1 and A202

The meeting tasked Viet Nam to provide update on planned usage of parallel route structure supplementing A1 and A202, providing update prior to the next Mekong meeting.

Mekong Route Structure Focal Points

Mekong Member State	Name	Title/Organization	E-Mail Address
Cambodia	Mr Khorn Vannak	Manager, ATM Development CATS	vannakk@cats.com.kh
Lao PDR	Mr Maity Sylithammavong	Director of ATS Office LANS	maitymt1975@gmail.com
	Mr Sohnsacksit Khamkeo	Director of Air Navigation Standards, DCA Lao	saykhamkeo@gmail.com sohnsacksit@dcal.gov.la
Thailand	Ms Chananya Pinkaewprasert	ATM Network Manager AEROTHAI	chananpink@gmail.com
Viet Nam	Mr Bui Thanh Ha	Director, ATS Department VATM	habt@vatm.vn

4.1.2.   Route Connection between VLPS and VVTS via Phnom Penh FIR *(WP4.1.2)*

Cambodia presented proposal for route structure connecting VLPS (Pakse) to VVTS (Ho Chi Minh)

Lao PDR has no principal objection and will coordinate with Cambodia for further information and collaboration.

Viet Nam expressed concern of the vicinity of the proposed route segment after entering the Phnom Penh FIR near the Phnom Penh – Ho Chi Minh FIR boundary.

The meeting agreed to continue studying the route proposal in coordination among Route Structure Focal Points with updates to be reported to the next MK-ATM/CG/10 meeting under **Action Item 9/8**.

Action Item 9/8: Study VLPS – VVTS Route Structure via Phnom Penh FIR

The meeting tasked Cambodia, Lao PDR and Viet Nam to continue studying VLPS – VVTS route structure via Phnom Penh FIR and provide updates to the next Mekong meeting.

4.1.3.   VVTS – VVNB Northbound Flight Deviation into Phnom Penh FIR *(IP 4.1.3)*

Cambodia presented information on VVTS – VVNB northbound flight deviation into the Phnom Penh FIR, proposing establishment of operating route to improve operational predictability.

The meeting agree to continue study of route structure connecting VVTS – VVNB via Phnom Penh FIR and Vientiane FIR under **Action Item 9/9** with progress to be reported to the MK-ATM-CG/10 meeting.

Action Item 9/9: Study VVTS – VVNB Route Structure via Phnom Penh FIR and Vientiane FIR

The meeting tasked Cambodia, Lao PDR and Viet Nam to continue studying VVTS – VVNB route structure via Phnom Penh FIR and Vientiane FIR and provide updates to the next Mekong meeting.

4.2. Air Traffic Flow Management (ATFM)

4.2.1.   ATFM Service Update: AMNAC *(Presentation 4.2.1)*

Thailand presented update of the Asia-Pacific Cross-Border Multi-Nodal ATFM Network (AMNAC) to the meeting.

4.2.2.   ATFM Service Update: Lao PDR *(IP 4.2.2)*

Lao PDR presented ATFM service development in collaboration with AEROTHAI.

The meeting thanked Lao PDR for their ATFM service development to enable supporting contingency situations affecting the Vientiane FIR.

4.2.3.   ATFM Service Update: BOBCAT *(Presentation 4.2.2)*

Thailand presented update of BOBCAT ATFM service to the meeting.

The meeting was informed of Afghanistan Civil Aviation Authority (ACAA) signing contract with an ANSP to provide ATS in the Kabul FIR with the scope including operations of the Kabul ACC. It is expected that Kabul ACC will be operational by 2023 Q3.

4.2.4.   ICAO APAC Regional Framework for Collaborative ATFM *(IP 4.2.4)*

Thailand presented revised edition of ICAO APAC Regional Framework for Collaborative ATFM, as presented to ICAO ATFM/SG/12. The framework document will be presented to ICAO ATM/SG/10 in Oct 2022 for approval.

4.2.5.   ICAO APAC Regional ATFM Implementation Status *(Presentation 4.2.5)*

Thailand presented ICAO APAC Regional ATFM Implementation Status, as reported to ICAO ATFM/SG/12 in Sep 2022.

Lao PDR informed the meeting that they are in the process of reporting their implementation to ICAO in Oct 2022.

4.2.6.   Non-Receipt of DEP Message *(Presentation 4.2.6)*

Thailand presented extract of Non-Receipt of DEP messages information as presented to ICAO ATFM/SG/12 in Sep 2022. ICAO APAC Regional Office expected to organize regional data collection in Oct 2022.

Lao PDR informed the meeting that they are in the process of resolving issues related to non-receipt of DEP message based on information provided by Thailand.

The meeting agreed that Mekong Member States should continue to exchange non-receipt of DEP message information to ensure compliance with ICAO provisions under **Action Item 9/10**.

Action Item 9/10: Coordinate and Resolve Non-Receipt of DEP Message

The meeting tasked Mekong Member States to actively coordinate and carry out corrective actions to resolve non-receipt of DEP message and provide updates to the next Mekong meeting.

4.3. Air Traffic Service (ATS) Coordination

4.3.1.   ATS Operational Letter of Agreement Harmonization *(Presentation 4.3.1)*

Thailand presented a proposal to harmonize name and table of content in ATS Operational Letter of Agreement, integrating AIDC content, which was previously a separate document.

The proposal received support from Cambodia, Lao PDR and Myanmar.

Cambodia, Lao PDR, Myanmar and Thailand will proceed to amend ATS Operational Letter of Agreement under the format proposed.

4.3.2.   A1 and B202 Flight Level Allocation Scheme *(Presentation 4.3.2)*

Thailand presented operational issue and Flight Level Allocation Scheme for A1 and B202.

Cambodia, Lao PDR, Thailand and Viet Nam will study and review the Flight Level Allocation Scheme and report updates to the next MK-ATM-CG/10 meeting under **Action Item 9/11**.

Action Item 9/11: A1 and B202 Flight Level Allocation Scheme (FLAS)

The meeting tasked Cambodia, Lao PDR, Thailand and Viet Nam to review Flight Level Allocation Scheme for A1 and B202 with the objective of providing update to the next Mekong meeting.

Agenda Item 5: CNS Infrastructure

5.1. Surveillance Service Development

5.1.1.   <u>Lao PDR Surveillance Service Development</u> *(Presentation 5.1.1)*

Lao PDR presented Surveillance Service Development information.

In response to query on operational use of ATS Surveillance Service using ADS-B, Lao PDR does not have a planned timeline on operational use of ADS-B for ATS Surveillance Service. ADS-B operational plan will be updated to the next MK-ATM-CG/10 meeting.

The meeting is reminded of Conclusion CNS/SG/26/12, ADS-B Implementation and Operations Guidance Document (AIGD), which is expected to assist in operationalizing ATS Surveillance Service using ADS-B.

IATA reminded the meeting of their global position on CNS technology as stated in IATA User Requirement on Air Traffic Service (URATS). ADS-B is a much better and cost-effective technology in comparison to PSR/SSR. As such, provided that there is a positive business, case ADS-B should replace radar, or be used in non-radar airspace to improve ATS surveillance. With respect to SSR, IATA support SSR Mode S over SSR Mode A/C where radar must be established or replaced. Meanwhile, IATA does not support PSR deployment as a mean to surveil airborne civil aircraft since the technology behind PRS has been superseded by SSR, MLAT and ADS-B. Excerpts from IATA User Requirement on Air Traffic Services (URATS) can be referred to in **Appendix B**.

In response to query on MSSR surveillance data sharing operation, Lao PDR clarified that the sharing is only for test purpose.

In response to Lao PDR request of Ha Noi MSSR signal while Xiengkhuang MSSR is being replaced, Viet Nam will study the proposal and coordinate with Lao PDR further.

5.1.2.   <u>Thailand Surveillance Service Development</u> *(Presentation 5.1.2)*

Thailand presented Surveillance Service Development information.

Cambodia ANSP (CATS) principally supported the proposal to exchange ADS-B signal. However, high-level approval is required. Cambodia will seek internal approval and further coordinate with Thailand.

Bangkok ACC highlighted benefits of using A1000 conspicuity code. However, the current ATM automation system (Thales TopSky ATC) does not have the associated functionality. Cambodia agree with Thailand on benefits of A1000 conspicuity code and will coordinate with vendor to request the feature.

The meeting agreed to Conclusion 9/2, requesting Mekong Member States to investigate A1000 Conspicuity Code in their ATM Automation System and consider jointly requesting the functionality from ATM Automation System vendor to alleviate SSR Mode A/C code shortage.

Conclusion 9/2: A1000 Conspicuity Code in ATM Automation System

The meeting agreed to review A1000 Conspicuity Code Functionality in their ATM Automation System and jointly request functionality from ATM Automation System vendor to alleviate SSR Mode A/C code shortage.

5.2. ATS Inter-facility Data Communication (AIDC)

5.2.1.   Cambodia AIDC Implementation *(IP 5.2.1)*

Cambodia presented information on AIDC implementation to the meeting.

5.2.2.   Lao PDR AIDC Implementation *(IP 5.2.2)*

Lao PDR presented information on AIDC implementation to the meeting.

In response to Vientiane ACC – Yangon ACC pending issue, Myanmar informed the meeting of their readiness to re-test AIDC operation. Lao PDR and Myanmar will coordinate to schedule operational trial via e-mail.

5.1.3.   Thailand AIDC Implementation *(IP 5.2.3)*

Thailand presented information on AIDC implementation to the meeting.

In response to Bangkok ACC – Yangon ACC pending issue, Myanmar informed the meeting of their readiness to re-test AIDC operation. Myanmar and Thailand are re-testing AIDC operation.

Agenda Item 6: Operational Contingency Plan

6.1.   ATM Contingency Plan – Thailand *(Presentation 6.1)*

Thailand presented information on ATM Operational Contingency Plan submitted to neighboring States for agreement and signing. Up to date, Myanmar already agreed and signed the document.

Cambodia received Thailand's ATM Contingency Plan and are reviewing the document.

Lao PDR received Thailand's ATM Contingency Plan. The document is in review process. Lao PDR look forward to completing the review and signing the document as soon as possible.

IATA stated that contingency planning is a priority activity from airline perspective in accordance with ICAO provisions. Lessons learnt from recent contingency events indicate that contingency plans should be reviewed and rehearsed at least annually.

6.2.   ATS Operational Contingency Plan – Lao PDR *(IP6.2)*

Lao PDR presented information on ATS Operational Contingency Plan

Cambodia, Myanmar and Thailand agreed to continue bilateral discussion with Lao PDR.

The meeting discussed whether there exists a regional TIBA frequency. In coordination with ICAO Asia-Pacific Regional Office, the meeting was referred to APANPIRG Conclusion 13/7 (2002), stating 128.95 MHz as the designated VHF radio telephony frequency for TIBA. The APANPIRG Conclusion 13/7 is quoted below:

Conclusion 13/7 –   Adoption of a regionally protected frequency for Traffic Information Broadcast by Aircraft (TIBA)

That,

a) A designated radio telephony (RTF) frequency of 128.95 MHz be promulgated in the Regional Supplementary Procedures (Doc 7030) for the Asia/Pacific Region for the use of Traffic Information Broadcast by Aircraft to permit reports and relevant supplementary information of an advisory nature to be transmitted by pilots; and,

b) All States in the Asia/Pacific Region to include the frequency of 128.95 for the use of TIBA in their contingency plans.

Further coordination with ICAO Asia-Pacific Regional Office indicated that the APANPIRG Conclusion 13/7 is still valid, not yet integrated into Doc 7030. Further reference on TIBA can be referred in Annex 11, Attachment B and ICAO Asia-Pacific Regional ATM Contingency Plan version 3.0.

The meeting also further discussed the need for ANSPs to secure ground-based capability to monitor the TIBA frequency. The meeting was informed that, as the TIBA frequency is intended for air-to-air communication in the event of ATS contingency situation, ground-based capability to monitor the TIBA frequency by ANSPs are not required.

Agenda Item 7: Future Plan

There was no discussion on this agenda item.

Agenda Item 8: Any Other Businesses

There was no discussion on this agenda item.

Agenda Item 9: Date and Venue of the Next Meeting

Following agreement from MK-ATM/CG/3 & MK-ATM/CG/7 meetings that the hosted countries for Mekong ATM Coordination Group Meeting shall be rotated among the members in alphabetical order, the following schedule of Mekong ATM Coordination Group Meetings for 2023 – 2031 is shown below:

- 2023: Lao PDR
- 2024: Myanmar
- 2025: Cambodia (swapped with Thailand for 2022)
- 2026: Viet Nam
- 2027: Cambodia
- 2028: Lao PDR
- 2029: Myanmar
- 2030: Thailand
- 2031: Viet Nam

During the MK-ATM/CG/9 meeting, Mekong Member States agreed in principle to organize the next Mekong ATM Coordination Group Meetings (MK-ATM/CG).

Location and timing of the next meeting will be informed to Mekong Member States and concerned organization in due course.

Closing of the Meeting

In closing the meeting, Mr. Suvichan Sathitkitpichet, Director, Network Operations ATM Centre, AEROTHAI thanked all the delegates for attendance and active participation in the meeting's discussions.

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Excerpts from IATA User Requirement Air Traffic Services (URATS)

CNS Technologies, Edition 3.0 - July 2017

Surveillance:

ADS-B is the next generation surveillance technology capable of replacing radar. Where surveillance needs to be maintained or established, IATA views ADS-B as the preferred technology.

IATA Position on PSR:

Do not support PSR deployment as a mean to surveil airborne civil aircraft. For this application, SSR, MLAT and ADS-B have vastly superseded this technology. Therefore, user charges associated with future upgrades or new PSR installations should be removed.

IATA Position on SSR:

Support SSR Mode S over SSR Mode A/C where radar must be established or replaced. SSR Mode S improves the quality of surveillance and provides additional information compared to Mode A/C. ANSPs should make full use of their available Mode S capabilities, including information provided by DAPs.

IATA Position on ADS-B-OUT:

Support implementation of ADS-B OUT based on Mode S Extended Squitter (1090ES) data link. ADS-B should not be implemented as a redundant surveillance capability. Provided there is a positive business case, it should replace radar, or be used in non-radar airspace to improve ATS surveillance. Transition timelines need to be determined in consultation with airspace users.

Mandating ADS-B OUT avionics equipage should be considered only for the airspace where ADS-B is planned to eventually be the only surveillance capability. Once ADS-B ground stations become operational, ANSPs should, in consultation with airlines and airspace users, publicly and transparently establish a timeline to decommission other surveillance infrastructure.

Performance requirements for ADS-B OUT should be based purely on corresponding ATM safety and separation requirements of the airspace and be consistent with ICAO Circular 326. Requiring unnecessary high levels of system performances, including accuracy, integrity and system latency, without appropriate safety rationales cannot be supported.

IATA Position on Space-based ADS-B:

Support with the condition that ICAO develops associated technical and separation standards that result in cost-effective safety and operational benefit. Any new Concepts of Operation should be founded on measurable benefits.