

**INTERNATIONAL CIVIL AVIATION ORGANIZATION****Twenty-fourth Meeting of the Africa-Indian Ocean Planning and Implementation  
Regional Group (APIRG/24)****(Virtual, 1-5 November 2021)****Agenda Item 2: Performance Framework for Regional Air Navigation Planning and  
Implementation****Outcomes of the fourth Airspace and Aerodrome Operations Sub-Group  
Meeting (AAO/SG4)***(Presented by Secretariat)***Summary**

This paper presents the outcomes of the Fourth Meeting of the APIRG Airspace and Aerodrome Operations Sub-Group (AAO/SG4), held virtually, from 16 to 18 August 2021. Following adoption of the agenda and election of Chairperson and Vice chairperson, the Sub-Group reviewed the status of implementation of APIRG/23 Conclusions/Decisions applicable to the AAO/SG, identified those that continue to be valid as well as actions required by States, regional organizations and ICAO Regional Offices and urged States to continue providing updates on status of implementation. The meeting also reviewed the status of implementation of specific Projects adopted by APIRG, discussed the Projects' challenges and follow-up coordination actions by all parties. Finally, the meeting discussed matters related to the Air Navigation Plan and its interrelation with the 6<sup>th</sup> Edition of the GANP with ASBU as a framework for the GANP implementation.

Action by the meeting is at **paragraph 3**.

**REFERENCE(S):**

- Doc 7300, Convention on International Civil Aviation, 1944
- Doc 9750, Global Air Navigation Plan, 6<sup>th</sup> Edition
- Doc 7474, Air Navigation Plan - Africa-Indian Ocean Region
- Doc 10115, Report of the Thirteenth Air Navigation Conference (2018)
- APIRG Reports
- AAO/SG3 Report
- AAO/SG ToR

**Strategic Objective(s):** This working paper relates to the Strategic Objectives: **A** – Safety, **B** – Air Navigation Capacity and Efficiency, **D** – Economic Development of Air Transport, and **E** - Environmental Protection.

## 1. INTRODUCTION

- 1.1 The fourth meeting of the APIRG Aerodrome and Airspace Subgroup (AAO-SG4) was held virtually, from 16 to 18 August 2021. The meeting was attended by 199 participants from 36 ESAF and WACAF States and four international organizations. Discussions were conducted in English and French languages with simultaneous interpretation. For ease of reference, a copy of the AAO/SG4 report is provided at **Appendix 1** to this working paper.

## 2. DISCUSSION

- 2.1 The meeting discussed eight agenda items as reflected in Appendix 1 to the Report of the AAO-SG 4 meeting. The following issues were given particular attention by the Airspace and Aerodrome Operations Sub-Group (AAO/SG).

### 2.2 Election of the Chairperson and Vice Chairperson

- 2.2.1 The meeting recalled the APIRG Procedural Handbook provisions and proceed with the election of the Sub-Group Chair and/or Vice-Chair. The meeting formulated the following draft Decision accordingly.

#### *Draft Decision 24/XX: Election of the Chairperson and Vice-Chairperson*

*That, in order to guide the discussions of the Sub-Group, Mr. Billy Diabasenga (Democratic Republic of Congo) and Nathan Kaluba (Zambia) were elected as Chairperson and Vice Chairperson of the Sub-Group, respectively.*

### 2.3 Review of the APIRG Conclusions/Decisions applicable to the AAO/SG

- 2.3.1 The meeting reviewed the status of implementation of the APIRG/23 Conclusions and Decisions applicable to the AAO/SG. The meeting appreciated progress made in the implementation of some Conclusions and Decisions and also noted the challenges related to the reporting arrangements. While recognizing the need for States to improve the flow of information provided to the Regional Office, the meeting tasked the Secretariat to propose a mechanisms that can improve and harmonize the reporting of Conclusions and Decisions implementation status.
- 2.3.2 The updated status of implementation of APIRG Conclusions and Decisions is at Appendix 2 to the AAO/SG 4 Report.

### 2.4 Planning and Implementation

- 2.4.1 The meeting reviewed the status of implementation on areas for which APIRG had adopted specific Projects to facilitate implementation and appreciated the progress made by the project teams inspite of virtual working arrangements that were currently being used. The meeting further recalled the APIRG/22 Conclusion 22/01 on the Effective implementation of AFI Regional ANS projects and specifically effective and efficient implementation of APIRG projects.
- 2.4.2 The meeting noted that the reorganization and where necessary merging of the some projects had facilitated the fastpacking of the project development process,

there were some projects that were still lagging behind and called on project team members to ensure the process is completed.

## **2.5 Airspace (Safety, Capacity and Efficiency)**

### **2.5.1 Implementation of the AFI ATM Master Plan (AAMP)**

2.5.1.1 The meeting was updated on the progress made by the AFI ATM Master Plan – Project Management Team (AAMP PMT) in the development of the AFI ATM Vision 2045 document, future AFI Concept of Operations (AFI CONOPS) and AFI ATM Master Plan (AAMP).

2.5.1.2 In order to support the tracking of the project activity and participation in the outstanding two project tasks, a Team made up of six AAMP-PMT members was formed. The Steering team's main task being to coordinate and facilitate project activities and ensure that the undertaking is continuously developing towards maturity. The meeting therefore formulated the following draft Conclusion:

#### **Draft Conclusion 24/XX: Implementation of the AFI ATM Master Plan (AAMP)**

*That, to enable the completion of the AFI ATM Master Plan (AAMP), The Vision Document and the ATM Concept of Operations (CONOPS) document:*

- a) States/Organizations to confirm by 31 December 2021, the availability of previously nominated AFI ATM Master Plan (AAMP) project members to continue with the project or nominate suitable alternatives and ensure their effective participation as project team members; and*
- b) The Secretariat in coordination with the Project Team to present the first draft of the AFI ATM Master Plan to APIRG/25*

### **2.5.2 Review of the AFI ATM Contingency Plan (AFI ATM CP)**

2.5.2.1 The meeting discussed the outlined progress on the ongoing AFI Regional Contingency Plan review and the implementation status of the AFI ATM CP.

2.5.2.2 The meeting reviewed the proposed changes in the revised AFI ATM Contingency Plan and urged States to review and harmonize their National ATM Contingency Plan with the reviewed AFI ATM CP once adopted. The meeting therefore formulated the following draft Conclusion and Decision:

#### **Draft Conclusion 24/XX: Review of the AFI ATM Contingency Plan (AFI ATM CP)**

*That, to ensure the availability of information pertaining to the AFI region contingency plans:*

- a) States that have not done so, are urged to review and publish their National ATM CP, and forward the signed copies to ICAO Regional Offices by 31 December 2021; and*
- b) States to establish and link their National ATM Contingency Plans to the ICAO Webpage of ATM Contingency Plans, by 31 December 2021.*

#### **Draft Decision 24/XX: Review of the AFI ATM Contingency Plan (AFI ATM CP)**

*That, in order to ensure the availability of information pertaining to the AFI region contingency plans, the Second Version of the AFI ATM Contingency Plan in Appendix 3 to the AAO/SG 4 Report is endorsed.*

### 2.5.3 *AFI Free Route Airspace (AFI FRA)*

2.5.3.1 The meeting was updated on the work of the AFI Free Route Airspace Project Management Team (AFI FRA PMT). The meeting noted that although COVID-19 had negatively affected the aviation industry, some States had implemented plannable direct routes in order to assist with operational recovery.

2.5.3.2 The meeting was informed of the GAP analysis checklist developed to provide an overall picture of possible challenges to be addressed during FRA implementation. The meeting therefore formulated the following draft Conclusion and Decision:

#### **Draft Conclusion 4/05: Implementation of the AFI Free Route Airspace (AFI FRA)**

*That, in order to foster a harmonized implementation of the AFI FRA within the stipulated timelines, States that have not already done so, to complete the FRA Gap Analysis checklist and forward to ICAO Regional Offices as a matter of urgency, using the provided survey tool:*

*<https://www.surveymonkey.com/r/Preview/?sm=3CzPI66ETNuFuWD9Otd2CNEEJJetf9yXt2FWdFyCzfsWZO7XUx2B2BWJ6iyGBKffJKJ>*

#### **Draft Decision 4/06: Implementation of the AFI Free Route Airspace (AFI FRA)**

*That, in order to foster a harmonized implementation of the AFI FRA within the stipulated timelines, the meeting endorses the draft AFI FRA CONOPS in Appendix 4 to the AAO-SG 4 Report.*

### 2.5.4 *ARMA RVSM and Operational Safety*

2.5.4.1 The meeting received the full report for RVSM Safety in the Africa Indian Ocean Region (AFI) airspace which contained results of the 2019 Collision Risk Assessment 14, Monitoring Burden for the AFI Region, Implementation progress for Strategic Lateral Offset Procedure (SLOP), and Identification of Non-Approved aircraft operating outside of the AFI Region.

2.5.4.2 The meeting endorsed ARMA's request for establishment of a link within the ICAO website for the publication of essential information from ARMA including on RVSM and PBCS.

2.5.4.3 The meeting expressed concern over the high incidences of Large Height Deviations (LHD) due to lack of coordination among ATS units in the Horn of Africa and urged for urgent action to be taken in order to address the deviations.

2.5.4.4 In support of continued reduction of the CRA value, ARMA urged the States that have not done so to implement SLOP by 30 June 2022. The meeting therefore formulated the following Conclusion and Decision:

#### **Draft Conclusion 24/XX: Attainment of the AFI RVSM Airspace Target Level of Safety.**

*That, in order to attain the Target level of Safety in AFI RVSM Airspace,*

*a) States that have not already done so to ensure that operators establish and comply by 31 March 2022 with Long Term Height Monitoring Requirements as per Annex 6 Standards and provide evidence to the ARMA; and*

*b) ICAO to engage AFI States in the Horn of Africa i.e. Ethiopia, Eritrea, Djibouti and Somalia, to address the high level of Large Height Deviations (LHD).*

### **Draft Decision 24/XX: Establishment of an ARMA Publication website**

*That, in order to improve access to ARMA information, ICAO establish a webpage link with the ARMA website to enable Stakeholders to have easy access to the RVSM and PCBS information.*

#### 2.5.5 AFI Performance Based Communications and Surveillance

2.5.5.1 The meeting was updated on the status of implementation of the AFI Performance Based Communications and Surveillance (AFI PBCS) and recalled the APIRG Decision 23/06 on the Establishment of PBCS team and implementation of PBCS in the AFI region and noted that States were lacking capacity in the area of PBCS implementation

#### 2.5.6 AFI SAR Implementation and development of the SAR Plan

2.5.6.1 The meeting was updated on status of implementation of the AFI Region Search and Rescue (SAR) system as well as implementation of the action plans developed from the interregional SAR workshops held in 2019 and 2020 as well as the Satellite Aided Distress Tracking System workshop by the Joint Workshop Group (JWG). The meeting therefore formulated the following Decision:

### **Draft Decision 24/XX: Improvement of Search and Rescue Services in the AFI Region:**

*That, in order to have an improved and harmonized implementation of the Search and Rescue Services in the AFI region:*

- a) The AFI SAR Plan in Appendix 5 to the AAO-SG 4 Report is endorsed; and*
- b) States are urged to harmonize their National SAR Plans with the Regional SAR Plan by 30 September 2022*

#### 2.5.7 ASCAAR

2.5.7.1 The meeting was informed that the ASCAAR project had reached the trial stage and was ready for implementation on 2 December 2021 with a trial, planned to commence on 7 October 2021, will run for sixty (60) days. The meeting therefore formulated the following Conclusion:

### **Draft Conclusion 24/XX: Implementation of the AFI SSR CMP**

*That, in order to ensure the smooth implementation of the adopted AFI SSR CMP, States promote awareness to all stakeholders on the AFI SSR CMP in preparation for the proposed implementation date of 2 December 2021.*

#### 2.5.8 ATS Competency Study

2.5.8.1 The meeting was updated on the status of the ATS Competency Study (ATSCS), noting that the issue of ATC competence still warranted special attention. The meeting was informed that the project team decided to review the survey tool that was used to collect data taking into account lessons learnt during the pandemic period and recirculate it to the target groups. The meeting therefore formulated the following Conclusion:

### **Draft Conclusion 24/XX: ATS Competency Study (ATSCS)**

*That, in order to enable the completion of the ATS Competency Study (ATSCS), States are urged to coordinate the response of their ANSPs to the survey questionnaire already sent out.*

#### 2.5.9 PBN Implementation

- 2.5.9.1 The meeting noted the low progress of implementation of PBN in the region due to lack of a harmonised approach from expired regional implementation timelines. The meeting therefore encouraged States to take opportunity of the current low traffic condition to implement CCO/CDO.
- 2.5.9.2 The meeting also noted that timelines set by APIRG for the implementation of the RNAV/5, RNP/4 and RNP/2 in the Enroute sector had expired. The need to review timelines and provide a forum for the process to ensure a harmonized approach for the implementation were emphasized. The meeting therefore formulated the following Conclusion and Decision.

#### **Draft Conclusion 24/XX: Optimization of the ATS Route Structure in the AFI En-Route Airspace**

*That, in order to optimize the ATS route structure in the AFI En-route airspace and foster the harmonized implementation of the RNAV/5, RNP/4, and RNP/2:*

- a) States/ANSPs, IATA and AFRAA to collaborate and conduct a survey of aircraft equipage in the AFI region to facilitate RNAV/5, RNP/2 and RNP/4 planning decisions by 31 March 2022;*
- b) States in coordination with ICAO, IATA, AFRAA and the AFPP identify trunk routes connecting major city pairs in the upper airspace and transit to/from aerodromes for RNAV/5, RNP/2 and RNP/4 implementation by 31 October 2022;*
- c) ICAO Regional Offices and AFPP conduct a workshop by end of June 2022 on RNAV/5, RNP/2 and RNP/4 airspace concept design and assist States in developing capacity for required RNP regulatory approvals and in the implementation activities, for a safe and timely RNP implementation in the AFI region.*

#### **Draft Decision 24/XX: Improved CCO/CDO Implementation**

*That, in order to improve the continued implementation of CCO/CDO in support of PBN and foster the harmonized implementation approach,*

- a) AFPP and ICAO Regional Offices to conduct a CCO/CDO implementation survey.*
- b) States that have not already done so, confirm their CCO/CDO implementation status by providing to the respective ICAO Regional Offices copies of published procedures.*

#### 2.5.10 Formalization of SAT Structure and Handbook

- 2.5.10.1 The meeting took note of the reviewed Terms of Reference of the South Atlantic (SAT) Steering Group (SSG), SAT Implementation Management Group (IMG) and SAT Oversight Group (SOG). The meeting was informed that the SAT Group agreed in principle for a formal SAT meeting to be held by 31 October 2021. The meeting formulated the following draft Conclusion:

#### **Draft Conclusion 24/XX: Adoption of a Formalized SAT Structure and Handbook**

*That, in order to establish and operationalize a formalized structure for the provision of ATS improvements over the entire South Atlantic:*

- a) *The SAT structure and Handbook in Appendix 6 to the AAO-SG 4 Report is endorsed as the governance framework for the SAT Group; and*

#### 2.5.11 *Civil/Military Cooperation and Coordination*

2.5.11.1 The meeting noted the importance of engagement at the highest States level on Civil/Military cooperation matters and urged States States to consider forming national high-level civil-military aviation cooperation policy Board-Civil / Military Cooperation Committees as a matter of urgency in dealing with Flexible Use of Airspace (FUA) and Special Use Airspace (SUA). The meeting formulated the following draft Conclusion:

##### **Draft Conclusion 24/XX: Enhanced Implementation of Civil/Military Cooperation**

*That, in order to promote a harmonized implementation of the provisions of the Manual of Civil/Military Cooperation in ATM (Doc 10088) in the AFI region:*

- a) *States to conduct national awareness seminars, workshops, joint planning and provision of services where necessary on Civil/Military cooperation;*
- b) *States to request ICAO Regional Offices assistance where necessary in the implementation of specific Civil/Military activities and programmes;*
- c) *States to review the existing Special Use Airspaces (SUA) in order to facilitate the implementation of FUA; and*
- d) *States to engage with the concerned military authorities in order to improve availability of FUA, based on flight plannable directs post implementation data.*

#### 2.5.12 *ATM Coordination*

2.5.12.1 The meeting was updated on the outcome of the Air Traffic Management (ATM) Coordination Meeting held virtually on 28 June to 2 July 2021. The meeting noted the numerous outstanding actions pending from previous coordination meetings and urged that States concerned to expedite the implementation.

2.5.12.2 The meeting also noted that there was still a high level of coordination failures resulting in Large Height Deviations (LHD) in the intersection region between AFI and MID regions (the Horn of Africa) and urged the states concerned to consider the importance of participation in coordination forums as a means of eliminating the unsafe conditions.

#### 2.5.13 *Implementation of Tactical Action Group (TAG) Recommendations*

2.5.13.1 The meeting noted with concern the low level of implementation of recommendations from TAG/11 and TAG/12 meetings held in 2019 and 2020 and urged concerned States to consider the importance of expediting the implementation of the recommendations.

## **2.6 Aerodrome Operations - (Safety, Capacity and Efficiency)**

### 2.6.1 *Status of implementation of Aerodrome Operations Projects and ASBU Modules*

2.6.1.1 The meeting was updated on the status of implementation of Aerodrome Operations and ASBU modules projects and noted the progress made by Aerodrome Operations Project Teams in drafting the Project documents.

### 2.6.2 *GRF Implementation Monitoring*

2.6.2.1 The meeting was updated on the GRF implementation monitoring tool and map developed by ICAO, based on GRF Implementation Action Plan and the actual implementation status provided by States to the ICAO Regional Offices. The meeting agreed on the following draft conclusion:

**Draft Conclusion 24/XX: GRF Implementation and Monitoring**

*That, in order to ensure effective implementation of GRF, States to continuously update ICAO Regional Offices on the status of the implementation including the encountered challenges.*

2.6.3 *Implementation of A-CDM*

2.5.12.1 The meeting noted the importance of real time operational information sharing among all the airport stakeholders for the Collaborative Decision Making (CDM) in order to save costs attributed to fuel burns and delays. The meeting further noted that training and sensitization are also critical for ACDM implementation. The meeting formulated the following draft decision:

**Draft Decision 24/XX: Implementation of the ACDM**

*That, in order to foster the implementation of A-CDM, ICAO Regional Offices to conduct workshop(s) on ACDM by 31 March 2022 and encourage States to participate.*

**2.7 Panel – The 3As - Building Back Better**

2.7.1 The AAO/SG4 introduced a panel session as a novelty and provided a platform for harnessing directly the inputs of CEOs and senior managers of industry and service providers as crucial inputs into the planning and implementation of air navigation systems in the AFI region. The Subgroup emphasized that the 3As (Airlines, Airports and Air Navigation Services) have the biggest resource burden in that they are responsible for planning and implementing the Air Navigation system infrastructure equipment, investment, technical and operations, financial and human resource. The following draft conclusion and decision were proposed.

**Draft Conclusion 24/XX: Building Back Better Air Navigation Systems**

*That, in order to build-back-better air navigation systems, ICAO organize seminars on innovations, emerging technologies and business models with leverage on the benefits of Artificial Intelligence, Big Data and digitalization, etc. in order to modernize the provision of air navigation systems and services in the region and support the Yamoussoukro Declarations, SAATM and AfCFTA objectives.*

**Draft Decision 24/XX: Building Back Better Air Navigation Systems**

*That, in order to build-back-better air navigation systems, the AAO/SG to consider methodology of conducting study on the impact on the provision of air navigation services in the region as a result of the concept of working remotely; determine safety and efficiency of operations as well as benefits, challenges, social and economic impact of new working arrangements.*

2.7.2 The meeting acknowledged the usefulness of the panel and agreed to consider similar forum for future meetings.

## **2.8 AFI Air Navigation Plan (Doc 7474)**

- 2.8.1 The meeting was informed that the approved Volume I and Volume II of the AFI eANP which are available on the ICAO ESAF and WACAF Regional Offices websites, lacked vital information to be provided by States.
- 2.8.2 The meeting also recalled that the structure for the Sixth Edition (6<sup>th</sup> Edition) of the GANP with the updated ASBU framework available on <https://www4.icao.int/ganportal/> provides for need to amend regional priorities for ASBU implementation to align them to the amended ASBU elements.

## **2.9 Implementation of sixth Edition of the GANP within the AFI Region**

- 2.9.1 The meeting was appraised on the new changes to the sixth Edition (6<sup>th</sup> Edition) of the Global Air Navigation Plan including but not limited to the format as well as its content [Basic Building Block (BBB) Framework, revised Threads; replacement of Performance Improvement Areas with three new groups; new, amended and re-structured modules. The meeting noted the need for sensitization to States on these new provisions and formulated the following draft Decision:

### **Draft Decision 24/XX: Implementation of the Sixth Edition of the GANP within the AFI Region**

*That, in order to foster the implementation of the Global Air Navigation Plan:*

- a) *ICAO Regional Offices to conduct a sensitization workshop on the provisions of the sixth Edition of the GANP by 30 June 2022, and*
- b) *ICAO Regional Offices to conduct a workshop on ASBU by 30 August 2022.*

## **2.10 AFI Air Navigation Deficiencies Database (AANDD)**

- 2.10.1 The meeting was updated on the ongoing development of the web-based database platform as well as the preparation of the planned training and urged states that had not done so to nominate Focal points to interact with the system.

## **2.11 Terms of Reference (ToR), Composition and Future Work Programme of the AAO Sub-Group**

- 2.11.1 The Sub-Group reviewed its Terms of Reference (ToR), with the objective of identifying areas for improvement to effectively support additional activities being undertaken by the Group and for recommendation to APIRG and agreed on the following draft decision.

### **Draft Decision 24/XX: Future Work Programme of the AAO Sub-Group**

*That the Work Programme of the AAO-SG is endorsed as attached in Appendix 9 to the AAO-SG 4 Report.*

## **3. ACTION BY THE MEETING**

- 3.1 The meeting is invited to:
- a) Note the information provided in the AAO/SG 4 meeting Report;

- b) Take action on the proposed draft conclusions and decisions.

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