

Sixth Meeting of the APIRG Infrastructure and Information Management Sub-group (IIM/SG6)

(Nairobi, 31 July – 3 August 2023)

Report

Prepared by the Secretariat

August 2023

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LIST OF ABBREVIATIONS

Abbreviation	Definitions		
AANDD	AFI Air Navigation Deficiencies Database		
AAO/SG	Airspace and Aerodrome Operations Sub-Group		
AFCAC	African Civil Aviation Commission		
AFI	Africa and Indian Ocean		
AFI VACP	AFI Volcanic Ash Contingency Plan		
AFI VOLCEX OPINS	AFI Volcanic Ash Exercise Operational Instructions		
AIM	Aeronautical Information Management		
AIXM	Aeronautical Information Exchange Systems		
AMET	Advanced Meteorological Information		
AMHS	Aeronautical Message Handling System		
ANS	Air Navigation Service		
ANSP	Air Navigation Service Provider		
APCC	APIRG Projects Coordination Committee		
APIRG	AFI Planning and Implementation Group		
ASBU	Aviation System Block Upgrades		
ASECNA	Agence pour la Sécurité de la Navigation Aérienne en Afrique et à Madagasca		
ATU	African Telecommunication Union		
AUC	African Union Commission		
AU	African Union		
BBB	Basic Building Block		
CAA	Civil Aviation Authority		
CNS	Communication Navigation Surveillance		
CODEVMET-AFI	Cooperative Development of Aeronautical Meteorological Services in the AFI Region		
COM	Communication		
CPDLC	Controller Pilot Data Link Communication		
DAIM	Digital Aeronautical Information Management		
eANP	Electronic Air Navigation Plan		
ESAF	Eastern and Southern African		
FIRs	Flight Information Regions		
GANP	Global Air Navigation Plan		
HQ	Headquarters		
IATA	International Air Transport Association		
ICAO	International Civil Aviation Organization		

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Abbreviation	Definitions					
IIM SG	Infrastructure and Information Management Sub-Group					
ITU	International Telecommunication Union					
ITU WRC	International Telecommunication Union World Radiocommunication Conference					
MET	Aeronautical Meteorology					
MoU	Memorandum of Understanding					
MSA	Management Service Agreement					
NCPI	National Coordinator for Planning and Implementation					
RASG-AFI	AFI Regional Aviation Safety Group					
RASG-AFI SSTs	AFI Regional Aviation Safety Group - Safety Support Teams					
RSOO	Regional Safety Oversight Organization					
SADIS	Secure Aviation Data Information Service					
SADIS API	SADIS Application Programming Interface					
SADIS FTP	SADIS File Transfer Protocol					
SAR	Search and Rescue					
SARP	Standards and Recommended Practices					
SAWS	South African Weather Service					
SSTs	Safety Support Teams					
SURV	Surveillance					
SWIM	System Wide Information Management					
WACAF	Western and Central African					
WAFC	World Area Forecast Centre					
WAFS	World Area Forecast System					
WRC	World Radiocommunication Conference					
VoIP	Voice over Internet Protocol					

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LIST OF APPENDICES

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Appendix 3	Status of the implementation of the APIRG/25 Conclusions and Decisions applicable to the IIM/SG
Appendix 4	Status of implementation of the ASBU elements in CNS, AIM and MET
Appendix 5	Volume III of AFI eANP
Appendix 6	AFI ANS Cybersecurity Resilience Framework
Appendix 7	Reporting status of air navigation deficiencies
Appendix 8	Updated Minimum Reporting Areas for CNS, AIM and MET
Appendix 9	List of project teams members
Appendix 10	Future work programme of the IIM Subgroup
Appendix 11	Implementation status of AMET-B0 and AMET-B1 as reported by MET Project 1, MET Project 2 and MET Project 3

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LIST OF CONCLUSIONS AND DECISIONS

Reference of draft Conclusion /Decision	Title of draft Conclusion /Decision
Draft Decision 6/01	Election of the Chairperson and Vice-Chairperson of the Sub-Group
Draft Decision 6/02	Formulation of Conclusions and Decisions of APIRG meeting
Draft Conclusion 6/03	Monitoring the implementation of ASBU elements in the region
Draft Conclusion 6/04	Reciprocal exchange of Aeronautical information products
Draft Conclusion 6/05	Implementation of upcoming changes in the World Area Forecast System (WAFS) data sets and introduction of SWIM compliant version of Secure Aviation Data Information Service (SADIS).
Draft Conclusion 6/06	Endorsement of the updated minimum reporting areas
Draft Decision 6/07	Revision of the Terms of Reference of the IIM Sub-Group
Draft Decision 6/08	Work Programme of APIRG IIM/SG for 2023/2024

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PART I – HISTORY OF THE MEETING

1. Introduction

- 1.1. The Sixth meeting of the APIRG Infrastructure and Information Management Sub-Group (IIM/SG6) was held in Nairobi, Kenya from 31 July to 3 August 2023.
- 1.2. The Sub-Group records the outcomes of its meetings in the form of Conclusions and Decisions with the following significance:
 - a) Conclusions deal with the matters which, in accordance with the Group's terms of reference, merit directly the attention of States for further actions to be undertaken in accordance with established procedures; and
 - b) Decisions deal with matters of concern only to the APIRG and its subsidiary bodies.

2. Objectives

2.1. The objectives of the meeting were to discuss amongst others, actions to further facilitate regional planning and implementation activities, the Air Navigation Plan updating process as well as the management of Air Navigation Deficiencies in AIM, CNS and MET areas. The meeting also aimed to review the status of the implementation of APIRG Projects as well as ASBU elements, for which the States' reporting is still low.

3. Attendance

- 3.1. The meeting was attended by eighty-three (83) participants from eighteen (18) States, and Organizations such as AAMAC, ASECNA, SAWS, IATA, WAFC London and the ICAO ESAF and WACAF Regional Offices.
- 3.2. The list of participants is provided at Appendix 1

4. Officers and Secretariat

- 4.1. The meeting was chaired by Mr. Issoufou Abdoulaye (Niger) and Ms. Nokuthula Phakathi (South Africa) respectively as Chairperson and Vice Chairperson of the Subgroup.
- 4.2. Mr. Goama Ilboudo Regional Officer, MET from the ICAO WACAF Office served as the Secretary of the meeting with the support of Ms. Chinga Mazhetese and Mr. Harvey Gabriel Lekamisy, Regional Officers ENV/MET and CNS respectively, both from the ICAO ESAF Office, and Mr. François Xavier Salambanga and Mr. Fanfé Bamba, Regional Officers CNS and AIM respectively from ICAO WACAF Office.

5. Working language

5.1. The meeting was conducted in the English and French languages with simultaneous interpretation.

6. Opening

6.1. Ms. Lucy Wanjiku Mbugua, the ICAO Regional Director for the ICAO Eastern and South Africa (ESAF) Office opened the meeting.

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- 6.2. She extended her heartfelt appreciation to the various Administrations and Organizations for facilitating the participation of their experts in the meeting. She thanked Ms. Anne Gitau (Kenya) and Mr. Issoufou Abdoulaye (Niger), Chairperson and Vice-Chairperson of the Sub-Group for their leadership and the support provided to the Subgroup during the past year.
- 6.3. The Regional Director reminded the meeting on various Conclusions and Decisions of the APIRG/25 meeting that called for actions, including the alignment of regional Plans and Programmes on the latest editions the Global Aviation Safety Plan and the Global Air Navigation Plan, the support to foster regional progress on key priorities and challenges, the improvement of the management of Air Navigation Deficiencies and the implementation of Projects and ASBU elements as well as the Regional Air Navigation Plan.
- 6.4. The Regional Director further appreciated the support received from the stakeholders, particularly the industry who, through several initiatives and other assistance activities continue to collaborate with the ICAO Regional Offices on AIM, CNS and MET related matters in the Region. She concluded with a call for States' commitment, towards making a difference in the AFI Region and ultimately, fully assume the IIM/SG mandate.

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7. Agenda

- 7.1. The meeting adopted the following agenda:
- Agenda 1. Adoption of the Agenda, the Work Programme and election of the Chairperson and Vice-Chairperson of the Sub-Group
 - 1.1. Adoption of the agenda and the work programme
 - 1.2. Election of The Chairperson and Vice-Chairperson of the IIM/SG
- Agenda 2. Status of the implementation of Conclusions and Decisions of the IIM/SG5 Meeting and APIRG/25 Meeting applicable to the Sub-group.
- Agenda 3. Achievements in AIM, CNS and MET
 - 3.1. Status of implementation of applicable ASBU elements
 - 3.2. Implementation of ASBU elements and Achievements of IIM Projects
 - 3.3 Reporting on Planning and implementation by States and Stakeholders
 - 3.4. Update of the AFI eANP
 - 3.5. Other Air Navigation initiatives
- Agenda 4. Air Navigation Deficiencies
- Agenda 5. Implementation challenges of the Sub-group
- Agenda 6. Activities to be coordinated with the RASG-AFI SSTs
- Agenda 7. Proposed recommendations/actions to be taken by ICAO HQ
- Agenda 8. Review of the Terms of Reference and Work Programme of the Sub-Group
- Agenda 9. Conclusions/Decisions of the Sixth Meeting of the Infrastructure and Information Management Sub-Group
- Agenda 10. Any other business

 Closing Ceremony

8. Summary of Draft Conclusions and Decisions

8.1. The Summary of draft Conclusions and Decisions is provided in Appendix 2 to this report.

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PART II REPORT ON THE AGENDA ITEMS

Agenda Item 1: Adoption of the Agenda, the Work Programme and election of the Chairperson and Vice-Chairperson of the Sub-Group

- 1.1. Under this agenda item, the meeting discussed and adopted the draft agenda and the work programme proposed by the Secretariat and elected its Chairperson and Vice Chairperson.
- 1.2. The Meeting elected Mr. Issoufou Abdoulaye from Niger as the Chairperson and Ms. Nokuthula Phakathi from South Africa as the Vice Chairperson of the Sub-group.
- 1.3. The elected Chairperson participated in remotely, as the political situation in Niger didn't allow his in-person participation. The meeting was then chaired by the elected Vice- Chairperson. The meeting agreed on the following:

Draft Decision 6/01 Election of the Chairperson and Vice-Chairperson of the Sub-Group That,

To guide the work of the Sub-Group, Mr. Issoufou Abdoulaye from Niger and Ms. Nokuthula Phakathi from South Africa are respectively elected as Chairperson and Vice-Chairperson of the IIM Sub-Group.

Agenda Item 2: Status of the implementation of Conclusions and Decisions of the IIM/SG5 Meeting and APIRG/25 Meeting applicable to the Sub-group

2.1. Conclusions/Decisions of the Fifth Meeting of the Infrastructure and Information Management Sub-Group (IIM/SG5)

- 2.1.1.The meeting was presented the status of implementation of the Conclusions and Decisions of the IIMSG/5 meeting not considered by the APIRG/25 meeting. Out of the two Conclusions presented, one was completed, and work is on-going to complete Conclusion 5/10 on the development of the draft AFI eANP Volume III.
- 2.1.2. The meeting applauded the Secretariat for developing the draft AFI eANP Volume III but noted with concern the low level of responses received from States on the draft being circulated. The meeting therefore invited States wishing to provide their comments and inputs to do so.

2.2. Review of the Conclusions and Decisions of the APIRG/25 Meeting applicable to the IIM/SG

- 2.2.1.Under this Agenda Item, the meeting was updated on the status of implementation of the Conclusions and Decisions of the APIRG/25 meeting applicable to the IIM/SG.
- 2.2.2.Twenty-nine (29) Conclusions and Decisions were presented out of which the status of the implementation is as follows; 38% are completed, 45% are 'in progress' and 17% are yet to be started. The meeting discussed the challenges that emphasized the important role States must play in ensuring that Conclusions and Decisions are effectively implemented.
- 2.2.3. The Appendix 3 to this report provides Status of the implementation of these Conclusions and Decisions.

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2.3. Status of the Outstanding Conclusions and Decisions from APIRG/20 to APIRG/24

2.3.1.The meeting was presented the status of the implementation of the outstanding Conclusions and Decisions of the IIM meetings as well as the APIRG IIM related Conclusions and Decisions for the period from 2020 to 2024. The meeting noted with concerns that number of these Conclusions and Decisions are still pending and that, some of these items are outcomes of other subsequent meetings. To address this issue, the meeting called for high level commitment from States. The meeting urged States and other concerned stakeholders to develop action plans for the implementation of APIRG Conclusions and Decisions, relying, when necessary, on the National Coordinators for Planning and Implementation, for the coordination and reporting purpose.

2.4. Formulation of the Conclusions and Decisions of APIRG Meetings

- 2.4.1. The meeting recalled the importance of the follow-up on the implementation of Conclusions and Decisions of previous meetings of APIRG and its contributory bodies, and noted the challenges encountered by the ICAO Regional Offices in collecting data on the implementation of APIRG Conclusions and Decisions from States and Organizations. Since APIRG/23, several Conclusions and Decisions were reported to be still pending. The 25th meeting of APIRG noted that only 50% of APIRG/24 Conclusions and Decisions were implemented.
- 2.4.2. The meeting identified some factors as contributing to the low level of Conclusions and Decisions implementation including the relevance of actions which sometime are not clearly specified, responsibilities not well identified, timeline not properly set, metrics not identified, and follow-up means not specified. To cope with these challenges, the meeting proposed through the draft Decision below, a template to improve the formulation of Conclusions and Decision.

Draft Decision 6/02 Formulation of Conclusions and Decisions of APIRG meetings
That;

To address the factors contributing to the low level of implementation of the Conclusions and Decisions formulated by the APIRG and its Contributory Bodies meetings, the following template is proposed for the formulation of future Conclusions and Decisions.

Conclusion/Decision XXX: Title of the Conclusion or Decision					
Why:	Why this Co	nclusion or De	ecision is needed		
What:	What action	is required			
Who:	Who is responsible for the required action (e.g., ICAO, States, Organizations, etc.)				
When:	Target date				
Implementation following-up					
			Metric 1:	Means to collect	Mean 1:
Follow-up	Yes □		Metric 2:	data on the	Mean 2:
•		Metrics		implementation	
required	No □			of the conclusion	
				/decision	

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Agenda Item 3: Achievements in AIM, CNS and MET

3.1. Status of implementation of applicable ASBU elements

Status of ASBU elements in CNS, AIM and MET fields

- 3.1.1. The meeting was presented the progress made in planning and implementing Aviation System Block Upgrades (ASBUs) in the areas of CNS, AIM and MET.
- 3.1.2. The meeting was reminded on the outcome of APIRG/25 meeting in particular Decision 25/13 that urged States to promote the implementation of the ASBUs elements and align the APIRG Projects with the groups, threads and elements of the GANP 6th edition, applicable to the Region.
- 3.1.3. Data collected from States by the Regional Offices provided an overview of the status of implementation of the ASBU elements in the region as provided in Appendix 4 to this report. It was agreed that the ongoing finalization of Volume III of the eANP provided in Appendix 5 and its automation will enable Administration/Organizations to directly upload the status of implementation in the tables designed for this purpose.

Monitoring the implementation of the ASBU elements in the region

- 3.1.4. The meeting recalled the *APIRG/25 Conclusion 25/11 Collection of data and reporting on ASBU implementation*, urging States to report on the status of planning and implementation of ASBU elements, using the Excel template provided by the Secretariat until the development of the online ASBU data collection platform is completed, and requesting the Secretariat to expedite the development of the said platform. The meeting was informed that the online ASBU data collection tool was under finalization as an add on to the current platform of the Air navigation deficiencies database (AANDD). The meeting highlighted the importance of some baseline data from States to feed the new tool; however, the Secretariat did not receive much data from States through the Excel template as expected.
- 3.1.5. In view of the future operational use of the online ASBU data collection tool, the meeting requested States to provide the Secretariat with the baseline data on their planning and implementation of ASBU elements. The meeting also recommended the conduct of trainings for the focal points from States and Organizations. Therefore, the following draft conclusion was formulated for consideration by the APIRG meeting.

Draft Conclusion 6/03 - Monitoring the implementation of ASBU elements in the region. That,

To provide a comprehensive and data driven analysis and visualisation of the status of implementation of ASBU elements in the region,

a) States to provide the Secretariat with baseline data on the planning and implementation of ASBU elements, through their feedbacks on the draft Volume III of the eANP by 31 January 2024, for the finalization and operationalization of the online ASBU data collecting and monitoring tool; and

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b) ICAO ESAF and WACAF Regional Offices to organize by 30 June 2024, familiarization seminars/webinars on the use of the online tool, for the Focal Points from States and Organizations.

3.2. Implementation of ASBU elements and Achievements of APIRG IIM Projects

3.2.1. The meeting was briefed on the progress made by Project Teams dealing with CNS, AIM and MET matters.

CNS Area

- 3.2.2.CNS COM project 1– Implementation of Ground/Ground communication (ATS/DS, AIDC, VoIP). The coordination of this project has been experiencing challenges until the recent appointment of a new Project Team Coordinator (Congo). Since then, notable progress was made in completing the development of the project documentation such as the description of the Project, the project action plan and planning, a new survey questionnaire on the implementation of ATS/DS, AIDC and VoIP systems for the collection of the concerned systems status, and the Project cost estimation (budget).
- 3.2.3. CNS COM Project 2 Implementation of Ground/Ground communication (AFTN, AMHS). This has been suffering from lack of leadership and coordination of its activities. A new PTC (Kenya) was appointed in May 2023 to expedite activities of the project, the IIM/SG Communication Project 2 lagging. The project team is currently in the process of reviewing and updating the COM 2 project documentation. In this regards the team will need to review, update, and finalise the Project Organization, Project Questionnaire, Terms of Reference, Action Plans and Project Costing.
- 3.2.4.For CNS Project COM 3 Implementation of Air/Ground communication (HF/VHF voice data, CPDLC). The meeting noted the completion of the project documentation, and the development of some guidance material, including the AFI HDL/VDL Manual/Guideline and the AFI Communication Strategy.
- 3.2.5.The CNS COM Project 4 Implementation of interoperable seamless telecommunication infrastructure, the team developed the project documentation and the project costing. The meeting encouraged the project to move ahead with the development of guidance and relevant tools to assist States in the implementation of required telecommunication infrastructure to support the provision of air navigation services.
- 3.2.6. The CNS COM Project 5 Assessment of AFI Aeronautical Networks Cyber Security Project reported the completion of the development of the project documentation and the project cost estimation. The AFI ANS Cyber resilience framework was developed as provided in Appendix 6 to this report, and it provides general guidelines on how to assess the cybersecurity risks, threats and vulnerability to Air Navigation Services and methods of mitigating such risks. This framework is based on Aviation Cybersecurity Strategy and the proven cybersecurity standards and frameworks (ISO 27000 series, NIST, etc.).
- 3.2.7. For the *NAV Project*, the meeting noted the completion of project questionnaire and the progress made related to project organisation including action plan revision in view of completing the project costing. This project was tasked to develop the regional navigation strategy including

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- conventional and satellite-based navigation infrastructure planning and implementation Strategy.
- 3.2.8. The SURV project Implementation of Surveillance systems reported the completion of the key documents of the project and the project cost estimation. The revision of AFI surveillance Strategy Document is underway, and actions taken to analyse responses to project questionnaire when received from States.
- 3.2.9. The *Spectrum project* completed the review of project documentation, including the alignment of the project with the 6th edition of the GANP and 5G challenges that affect aircraft radio altimeters. The development of an MoU template between CAAs and frequency regulators is to be accomplished after establishing a baseline based on the output of the Spectrum questionnaire distributed to States.

AIM Area

3.2.10. Recalling the APIRG/25 Decision 25/15 – Adoption of the Projects AIM/4 and AIM/5 on Monitoring of Aeronautical information quality and Improvement of NOTAM; and Implementation of Aerodrome mapping data sets and Instrument flight procedure data sets, the Secretariat updated the meeting on the progress towards the conduct of the two new projects. The meeting noted that some challenges were faced in the composition of the project's teams including the lack of expertise in the field of Flight procedure design and Aeronautical charting, which are essential for the successful implementation of Instrument flight procedure datasets and Aerodrome mapping datasets. The meeting requested the Secretariat to circulate to States and Organizations the required criteria for the nomination of Experts to both projects' teams.

MET Area

3.2.11. The meeting was updated on the progress made in the implementation of MET Project 1 on the provision of global, regional, and local meteorological products/Information, MET Project 2 on the provision of meteorological information in the ICAO Meteorological Information Exchange Model (IWXXM) format and MET Project 3 on the implementation of Annex 3 provisions relating to space weather requirements within the AFI Region. These three MET Projects reported the completion of the development and alignment of the project documentation with the provisions of the GANP, including the draft project cost estimation. As part of the implementation, the Projects collected data on the implementation of AMET-B0 and AMET-B1 elements from States as detailed in the Appendix 11 to this report and reflected in figure 1 and 2 for AMET-B0 and figure 3 for AMET-B1. The Projects carried out a review of the current implementation status of the MET related ASBU elements, identified gaps that need to be addressed and then developed corrective action plans based on the results of their review. The implementation of these action plans is ongoing. MET Project 3 conducted a regional workshop on space weather requirements, which provided tailored support to States with guidance to their MET forecasters on space weather advisories.

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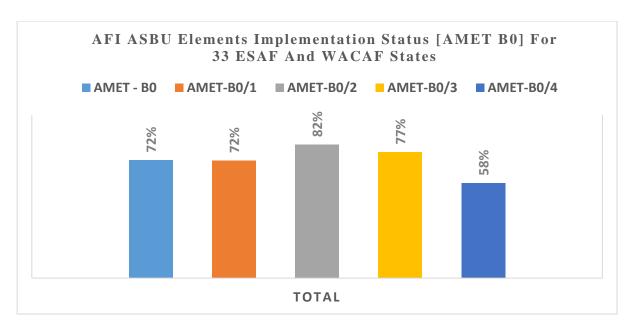


Figure 1 AFI ASBU Elements Implementation Status [AMET B0] For 33 ESAF And WACAF States

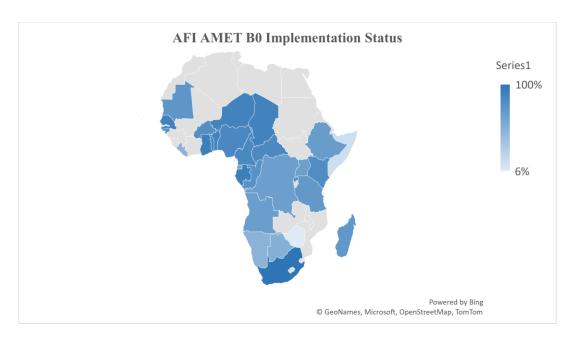


Figure 2 AFI AMET B0 Implementation Status

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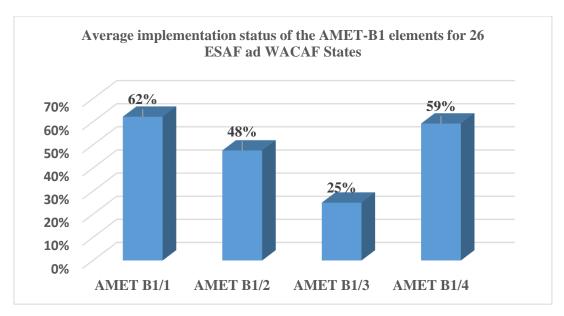


Figure 3 Average implementation status of the AMET-B1 elements for 26 ESAF and WACAF States

3.2.12. *MET Project 4 – Implementation of aeronautical meteorological competency standard and MET Project 5 – Mitigation of the deficiencies related to the availability of the OPMET data in the region.* These two new projects had just been taken over by new project team coordinators and project team members. For MET 4, the meeting noted the completion of the development of project documents, project action plans and a project costing proposal. There was no report on the MET 5 project.

3.3. Reporting on Planning and implementation by States and Stakeholders

Implementation of AMET-B0 and AMET-B1 by ASECNA Member States

3.3.1.The IIM/SG6 meeting was briefed on the implementation of the AMET-B0 and AMET-B1 elements of ASBU by ASECNA through its Member States. The meeting noted the progress made in the implementation of the AMET-B0 elements and encouraged ASECNA to continue to support States in the implementation of the ASBU elements.

3.4. Update of the AFI eANP

Release of Vol III of the eANP

- 3.4.1. Recalling the request by APIRG/25 for States to review the draft document of the eANP Volume III and provide the Secretariat with their feedback, the meeting was informed that only three (3) States (Senegal, Tanzania and Togo) States provided feedbacks, including one State who made proposals of significant changes in the formatting of tables as well as to the extent of applicable ASBU elements.
- 3.4.2. The meeting highlighted that the applicability of ASBU elements resulted from a performance-based assessment which led to the identification of regional priorities as well as the systematic applicability of ASBU elements with direct link to ICAO Standards and Recommended Practices (SARPs). The meeting requested the Secretariat to coordinate with the said State on their inputs, bearing in mind the regional consensus reached on the applicable ASBU elements.

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3.4.3. The meeting recalled the aim of *Part 4 – Performance Monitoring of AFI Region Air Navigation System* – of the eANP Volume III, which is to monitor the regional implementation progress, and emphasized the expectation that States provide at least data in the tables thereto included for each of the areas AOP, ATM/SAR, CNS, AIM and MET, to capture the status of implementation of the applicable ASBU elements. Therefore, the meeting urged States to confirm their status of implementation of the applicable ASBU elements in the draft Volume III of the eANP as requested by APIRG/25 Decision 25/29 on the completion of the Regional eANP.

Proposal of amendment of Vol I and Vol II of the eANP

3.4.4. The meeting discussed the amendment to the content of the AFI eANP that should follow the Procedure for amendment of the ANP as provided in Volume I of the AFI eANP. The attention of the meeting was drawn to the fact that Volume II of the AFI eANP, approved by the PIRG in its conclusion 22/20, contains some inconsistencies in various tables, including (but not limited to) poor formatting of tables, outdated information, etc.). These issues do not facilitate the use of the plan by the stakeholders and subsequent amendment of the tables. Moreover, the accuracy of some data needs to be confirmed by concerned States. In this regard, the meeting was updated on the ongoing actions undertaken by the Secretariat to assist States to solve the inconsistencies through a scheduled three-sessions webinar on the Regional Air Navigation Plan updating. The meeting then encouraged States to participate in this webinar and provide consistent proposal of amendments of Vol I and II of the eANP.

3.5. Other Air Navigation initiatives

CNS area

- 3.5.1.The meeting was reminded that the final ICAO Position for the International Telecommunication Union (ITU) Word Radiocommunication Conference 2023 (ITU WRC 23) was endorsed by the ICAO Air Navigation Commission in May 2023, and disseminated to States in June 2023.
- 3.5.2.The Secretariat reported on the Workshop held virtually on 19 July 2023, in preparation of the African Telecommunication Union (ATU) 4th preparatory meeting for ITU WRC 23 and encouraged States and Organizations to attend the meeting to be held in Yaoundé, Cameroon from 7 to 11 August 2023. To support the ICAO position for WRC-23, the meeting called for the effective participation of the Aviation Community to ITU WRC-23.
- 3.5.3.ICAO was invited to provide as usual the compatibility matrix on Conference Preparatory Meeting (CPM) report by 10 November 2023, to facilitate States further discussion with their National Regulation of Telecommunication.

AIM area

3.5.4. The meeting discussed the requirement for Exchange of aeronautical data and aeronautical information in a mutually agreed form between States' AIS, as per the provisions of ICAO Annex 15 – section 2.3 and identified challenges in the implementation of the said requirement including the lack of points of contact for the arrangement of reciprocal exchange among States. The meeting noted that through APIRG/24 Conclusion 24/22, States were called for nomination of National Coordinators for Planning and Implementation (NCPI) and technical areas focal points including in AIM. It identified that the NCPI and AIM Focal points can serve as points of contacts for the Reciprocal exchange of Aeronautical information products and requested the Secretariat the avail the list of nominated NCPIs and Technical areas focal points to all the

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States. To this end, the following draft conclusion were formulated to the attention of the APIRG meeting.

Draft Conclusion 6/04 Reciprocal exchange of Aeronautical information products

That:

In continuation of the actions called upon by APIRG/24 Conclusion 24/22 on the nomination of National Coordinators for Planning and Implementation (NCPIs) and technical areas focal points, and to facilitate the availability of the required Aeronautical information from other States at their designated AIS office,

- a) States to task their nominated NCPI and AIM focal points to coordinate with their counterparts from other States for the reciprocal exchange of Aeronautical information products as appropriate; and
- b) ICAO Regional Offices to publish on their websites the list of nominated NCPIs and technical areas Focal points.

MET area

Second Volcanic Ash Exercise in the AFI Region

3.5.5.The Chairperson of the AFI Volcanic Ash Exercise Steering Group (AFI VOLCEX SG) presented the meeting with the deliberations of the second meeting of the AFI VOLCEX steering group held virtually in July 2023 to discuss the aims, the objectives, and the lead of the upcoming 2023 volcanic ash (VA) exercise. The IIM/SG6 Meeting took note that the Democratic Republic of Congo (DRC) will coordinate the conduct of the 2023 VA exercise as Exercise Lead State. The meeting then encouraged DRC and all involved stakeholders to work together in the preparation of the 2023 VA event expected to take place by the end of the year.

Upcoming changes to the World Area Forecast System (WAFS) data sets in 2023 and 2024

3.5.6. The meeting was updated on the upcoming changes to the World Area Forecast System (WAFS) data sets in 2023 and 2024 as well as the SADIS and WIFS systems that are used to deliver the data. All these changes are related to changes to Annex 3 to the Chicago Convention as agreed at the ICAO MET PANEL meeting in June 2021, and are now being considered by the ICAO air Navigation Commission for approval/consultation through SL 2023.1. To deliver the new WAFS data sets to users effectively, and in order to comply with the ICAO requirements to provide meteorological information through SWIM compliant systems, an update to the SADIS system is being developed. The new SADIS system (SADIS API) will provide access to the new WAFS data sets, whilst the current SADIS FTP system will be retained up until November 2028 when it will be retired. Users will be strongly encouraged to migrate their systems over to use data from the new SADIS API as soon as possible to benefit from the improved data sets. In this regard, MET Service Providers and users may need to be prepared to these changes to ensure a continued provision and use of meteorological information as required. The following conclusion was formulated accordingly.

Draft Conclusion 6/05 - Implementation of upcoming changes in the World Area Forecast System (WAFS) data sets and introduction of SWIM compliant version of Secure Aviation Data Information Service (SADIS).

That,

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To prepare States and stakeholders for the implementation of upcoming amendments to Annex 3 related to changes in the WAFS data and SADIS system, the Secretariat, in coordination with the AFI WAFS Service Provider State (WAFC London), to organize awareness workshops on the changes to the WAFS data sets and the introduction of a SWIM compliant version of SADIS by 28 February 2024.

Project for the Cooperative Development of Aeronautical Meteorological Services in the Africa-Indian Ocean Region (CODEVMET-AFI)

3.5.7.The meeting was updated on the progress of the Project for the Cooperative Development of Aeronautical Meteorology Services in Africa-Indian Ocean Region (CODEVMET-AFI). This Project was designed to enhance the capabilities of State Civil Aviation Authorities (CAA) in carrying out the safety oversight in MET field and help MET Services Providers to comply with Annex 3 requirements related to the quality management system. The Meeting noted that major activities were achieved, including the development and validation of the project implementation packages. Beneficiary States were assisted with a comprehensive assessment of their current situation of QMS and MET Safety oversight system and the development of subsequent corrective action plan (CAP). States are assisted by the project experts' teams in the implementation of the approved CAP. The meeting acknowledged the progress made in the implementation of the planned activities of the project, estimated at 63%, and encouraged States and organizations to support the implementation of the project to address critical air navigation deficiencies in the MET in the region.

Agenda Item 4: Air Navigation Deficiencies

Management of air navigation deficiencies

- 4.1. The meeting was reminded that the *APIRG/25 Conclusion 25/30 on the Identification, notification, and resolution of Air Navigation Deficiencies* requested States yet to nominate focal points to do so, the Secretariat to support training workshops when required, and States/Organizations to identify and notify air navigation deficiencies as appropriate.
- 4.2. The meeting noted with satisfaction that the Secretariat organized a webinar on the management of air navigation deficiencies from 14 to 16 March 2023, which provided participants with knowledge on the process of air navigation deficiency management and familiarized them with the use of the AANDD platform for the identification, notification, assessment, and resolution of air navigation deficiencies. The webinar was attended by two hundred forty-three (243) participants representing 36 States and Organizations (ROBERTS FIR, AFCAC, RSOOs, ANSPs, and Airlines). That webinar was followed by a meeting held on 17th May 2023, to officially launch the operational use of the AANDD for the management of air navigation deficiencies. Participants were provided with a refreshment on Signing up for User accounts on the AANDD, as well as on the deficiency management process.
- 4.3. Considering the activities conducted so far for the deployment of the final version of the AANDD tool and the training of focal points, and noting that the tool is now fully operational, the meeting urged States and Organizations to embark in the effective management of air navigation deficiencies through the online platform.

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Status of Air Navigation Deficiencies in CNS, AIM and MET fields

4.4. The meeting discussed the *Status* of Air Navigation Deficiencies in CNS, AIM and MET fields and recalled the Twenty-fifth Meeting of the APIRG (APIRG/25) Conclusion 25/30 requesting States and Organizations to start identifying and reporting to their ICAO accredited Regional Offices, air navigation deficiencies as appropriate. The meeting noted that two (2) draft air navigation deficiencies have been reported in AIM and MET areas, as indicated in the Appendix 7 of the IIM/SG6 report. The meeting then encouraged States and key stakeholders to report air navigation deficiencies through the AANDD tool to their accredited regional offices.

Update of the Minimum Reporting Areas

4.5. The meeting was recalled the APIRG/23 Conclusion 23/32 endorsing the AANDD Management process and minimum Reporting Areas and nomination of Focal Points. The meeting was reminded that the Minimum Reporting Areas are closely related to the Basic Building Block (BBB) and establish the framework to identify and notify air navigation deficiencies. As the BBBs provided in the GANP Portal was updated to include amongst others, QMS in AIM as well as generic provisions in MET, the Minimum reporting areas were reviewed and updated as provided in Appendix 8 to this report. The meeting formulated the following decision accordingly.

Draft Conclusion 6/06 Endorsement of the updated minimum reporting Areas That,

To provide a comprehensive framework for the identification, reporting and resolution of air navigation deficiencies, the updated minimum reporting areas provided in Appendix 8 to this report are approved.

Agenda Item 5: Implementation challenges of the Sub-group

- 5.1. The meeting acknowledged the progress made by the IIM subgroup in implementing its activities but recognized that it still faces challenges in executing the project implementation activities.
- 5.2. The lack of participation of designated experts is of concern and States and Organizations were called upon to ensure the effective participation of their officials in the project activities. Project Teams Coordinators (PTC), in coordination with the Secretariat, are urged to review and update the list of project teams members as provided in Appendix 9 to this report.
- 5.3. The meeting discussed the implementation of COM1, COM2 and COM4 projects, noted the complementarity of the three projects, and urged concerned PTC to strengthen collaboration and coordination in the implementation of projects activities.

Agenda Item 6: Activities to be coordinated with the AAO/SG and RASG-AFI SSTs

6.1. The meeting deliberated on this agenda item and noted that no Conclusions and/or Decision adopted requires the attention of the RASG-AFI SST. However, the meeting noted that the implementation of draft Decision 6/08 on the work programme of APIRG IIM/SG for 2023/2024 requires coordination with the AAO/SG, in particular, for the completion of tasks 2 and 4 of the work programme on the implementation of ASBU elements and the conduct of the IIM/SG7 meeting.

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Agenda Item 7: Proposed recommendations/actions to be taken by ICAO HQ

7.1. Under this agenda item, no action requiring the attention of ICAO HQ has been identified.

Agenda Item 8: Conclusions/Decisions of the Sixth Meeting of the Infrastructure and Information Management Sub-Group (IIM/SG6)

8.1. The meeting reviewed and adopted the draft Conclusions and Decisions of the IIM/SG6 Meeting as presented in this report.

Agenda Item 9: Review of the Terms of Reference and the Work Programme of the Sub-Group

9.1. The meeting discussed the matters related to the Terms of Reference (ToR) and the Work programme of the Subgroup. Regarding the ToR, the meeting noted that tasks as described in the ToR, do not cover all the activities in area of CNS, AIM and MET. In this regard, the meeting set up a task force composed of Kenya, Nigeria, South Africa and ASECNA to review the ToR of the Subgroup, Kenya being the lead of the that task force. The meeting then reviewed and updated the work programme of the IIM Sub-Group as provided in the Appendix 10 to this report. The meeting formulated the following decisions accordingly.

Draft Decision 6/07 Revision of the Termes of Reference of the IIM Sub-Group That,

To ensure that the functions and activities of the Sub-Group are consistently defined, the task force composed of Kenya, South Africa, Nigeria, and ASECNA to review Termes of Reference (ToR) of the IIM/SG and submit the revised ToR to the Chair and Vice-chair by 15 September 2023, for consideration and submission to APCC/8.

Draft Decision 6/08 Work Programme of APIRG IIM/SG for 2023/2024 That,

To achieve the APIRG IIM Sub-group objectives, the Work Programme as provided in Appendix 10 is approved.

Agenda Item 10: Any other business

10.1. No subject was discussed under this agenda item.

Closing Ceremony

The closing remarks were delivered by the APIRG IIM Subgroup Chairperson, Mr. Issoufou Abdoulaye. He expressed his appreciation to all IIM/SG members for their support and active participation in the activities of the subgroup. He conveyed his gratitude to the entire Secretariat, and praised the work done by the Subgroup.

The Chairperson ended the meeting by thanking the Secretariat, the delegates, and the interpreters for their contribution to the successful conduct of the meeting.

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END	

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