



# ICAO

## APIRG INFRASTRUCTURE AND INFORMATION MANAGEMENT

AFI Region	Project Description	IIM MET Project 3	
Programme	Title of the Project	Start	End
Aeronautical Meteorology  <b>Project Facilitators:</b>  ICAO Regional Officer, MET, Dakar & Nairobi	<b>Implementation of Annex 3 provision relating to space weather requirements within the AFI Region</b>  <b>MET Project 3 Team:</b> <ul style="list-style-type: none"> <li>• <b>Project-Team Coordinator:</b> South Africa</li> <li>• <b>Experts contributing to the Project 3:</b> Experts from States and Industry</li> </ul>	1/12/2022	31/12/2024
Objective	Assist States in the implementation of: <ol style="list-style-type: none"> <li>a) The requirement for the provision of a space weather information service to support international air navigation as part of ICAO's Global Air Navigation Plan (Doc 9750). ICAO amended Annex 3, Annex 15, PANS-ABC and PANS-ATM to include the provision of space weather information that is expected to affect the following areas : (i) communications, (ii) navigation and surveillance system and (iii)/or pose a radiation risk to flight crew members and passengers. This information should be provided for the evolution of such phenomena in time and space in accordance with ICAO DOC 10100 (Space weather manual) and Annex 3.</li> <li>b) to assist the states within the ICAO AFI region to meet the space weather information requirements in accordance with the ICAO Annex 3.</li> <li>c) Create awareness of the space weather information requirement within the aviation sector in the AFI region.</li> <li>d) Engage with the States to ensure government support for the provision of space weather for the safety of aircraft operations.</li> <li>e) Report on the implementation of project activities.</li> </ol>		
Scope	The Project will benefit all AFI States and interested Organizations and will cover the implementation of the following MET ASBU elements. <ul style="list-style-type: none"> <li>• AMET-B1/1 Meteorological observations Information (Space weather events)</li> <li>• AMET-B1/2 Meteorological forecast and warning information (Space weather events)</li> <li>• AMET-B1/3 Climatological and historical meteorological Information (Enhanced climatological data)</li> <li>• AMET-B1/4 Dissemination of meteorological Information ((Space weather events)</li> </ul>		

<p>Metrics</p>	<p>The progress of the Project will be monitored through the evaluation of the implementation status using the following metrics.</p> <ul style="list-style-type: none"> <li>• Metric 1: % of States with AMET-B1/1 related to space weather events implemented by December 2024</li> <li>• Metric 2: % of States with AMET-B1/2 related to space weather events implemented by December 2024</li> <li>• Metric 3: % of States with AMET-B1/3 related to space weather events implemented by December 2024</li> <li>• Metric 4: % of States with AMET-B1/4 related to space weather events implemented by December 2024</li> </ul>				
<p>Strategy</p>	<ul style="list-style-type: none"> <li>• <b>Coordination of the project:</b> The coordination of the project will be carried out by the Project Team Coordinator State.</li> <li>• <b>Implementation of the Project activities:</b> Each member of the project team will be assigned specific task to be achieved as per the project wok plan.</li> <li>• <b>Supporting experts:</b> Project team members will be supported by State National Coordinator for planning and implementation (NCPI) and Sate technical Focal Point (TFP) in MET.</li> <li>• <b>Facilitation:</b> Project Facilitators (ROs/MET, Dakar and Nairobi).</li> <li>• <b>Reporting on the project implementation:</b> Project-Team Coordinator, upon completion of the tasks, the results will be sent to the Project Facilitators as a final document for submission to the IIM_SG, and approval by the APIRG Projects Coordination Committee (APCC).</li> </ul>				
<p>Rationale</p>	<ul style="list-style-type: none"> <li>a) The lack of implementation by many/ a significant number of AFI MWO Provider States, of information concerning en-route space weather phenomena which may affect the safety of aircraft operations.</li> <li>b) Personnel involved in the different air navigation areas to receive, properly use, and disseminate quality space weather information do not have appropriate training/qualification</li> <li>c) Low level of implementation of AMET-B1 applicable elements related to space weather in the region</li> <li>d) Need of alignment of the project’s references with the groups, threads, elements of ASBU modules introduced by the 6<sup>th</sup> edition of the GANP and applicable to the AFI region in MET area.</li> <li>a) More accurate and timely space weather information will optimize flight path planning and prediction, thus improving ATM safety and efficiency.</li> </ul>				
<p>Targets</p>	<p>Metric</p>	<p>Baseline (2022)</p>	<p>Milestone, 2023</p>	<p>Target, 2024</p>	<p>Comments</p>
	<p>Metric 1</p>	<p>0%</p>	<p>30%</p>	<p>70%</p>	
	<p>Metric 2</p>	<p>0%</p>	<p>30%</p>	<p>70%</p>	
	<p>Metric 3</p>	<p>0%</p>	<p>30%</p>	<p>70%</p>	
	<p>Metric 4</p>	<p>0%</p>	<p>30%</p>	<p>70%</p>	

<p>Status at the End of Project</p>	<p>a) At least 70% of States with the provision of space weather information implemented.</p> <p>b) The reporting on the Project implementation is consistently achieved.</p>
<p>Related projects</p>	<p>All APIRG specifically projects related to:</p> <ul style="list-style-type: none"> <li>• <b>COMI-B0/7</b> - ATS Message Handling System (AMHS)</li> <li>• <b>COMI-B0/1</b> - Aircraft Communication Addressing and Reporting System (ACARS)</li> <li>• <b>ASUR-B0/3</b> - Cooperative Surveillance Radar Downlink of Aircraft Parameters (SSR-DAPS)</li> <li>• <b>DAIM-B1/1</b> - Provision of quality-assured aeronautical data and information</li> <li>• <b>DAIM-B1/2</b> - Provision of digital Aeronautical Information Publication (AIP) data sets</li> </ul>

Activity #	Activity Name	Beneficiary State /Bodies	Actors	Duration (in days)	Start	Finish
	<i>Implementation of MET Project 3</i>			<b>700</b>	<b>1-Dec. -22</b>	<b>31-Dec. -24</b>
<b>1.1</b>	<i>Coordination of the Project and implementation guidance material</i>	-				
1.1.0	IIM/SG Quarterly PTCs' Coordination Meeting and quarterly report on the implementation of Project activities	AFI States	<ul style="list-style-type: none"> <li>Chair</li> <li>Supported by Vice-Chair and PTC</li> </ul>	<b>700</b>	Q1 2023	Q4 2024
1.1.1	Confirm MET Project membership and encourage identified competent experts from States and Industry to join the team	AFI States	<ul style="list-style-type: none"> <li>PTC</li> </ul>	30	1-Dec.-22	31-Dec.-22
1.1.2	Update meeting on the Project methodology and expected outcomes	Project Team Experts (PTEs)	<ul style="list-style-type: none"> <li>PTC</li> <li>PTEs</li> </ul>	5	2-Jan.-23	6-Jan.-23
1.1.3	Review/update/development of project implementation guidance material	Project Team Experts (PTEs)	<ul style="list-style-type: none"> <li>PTC</li> <li>PTEs</li> </ul>	58	1-Feb.-23	31-March-23
<b>1.2</b>	<i>Status of implementation ASBU elements, Gaps analysis and development implementation Action Plan</i>	<b>AFI States</b>		<i>136</i>	1-Apr.-23	15-Aug-23
1.2.1	Assess the status of implementation of the space weather requirements related to AMET-B1/1, AMET-B1/2, AMET-B1/3 and AMET-1/4	AFI States	<ul style="list-style-type: none"> <li>Project Team Expert (PTE)</li> <li>Support from State TFP in MET</li> </ul>	29	1-Apr.-23	30-Apr.-23
1.2.2	Perform the ASBU gaps analysis and establish priorities	AFI States	<ul style="list-style-type: none"> <li>Project Team Expert (PTE)</li> </ul>	30	1-May-23	31-May-23

			<ul style="list-style-type: none"> <li>• MET TFP</li> </ul>			
1.2.3	Produce the report of the ASBU gaps analysis	AFI States	<ul style="list-style-type: none"> <li>• PTC</li> <li>• PTEs</li> </ul>	14	1-June-23	15-June-23
1.2.4	Develop Action Plan to address the deficiencies identified upon the gaps analysis	AFI States	State (With the support of PTEs)	30	15-June-23	15-Jul.-23
1.2.5	Review and approve Action Plan to guide its implementation by State with support of PTEs	AFI States	PTC	30	16-Jul.-23	15-Aug-23
<b>1.3</b>	<b><i>Monitoring the and assist State in the Implementation of State Action Plan</i></b>			<i>504</i>	<i>15-Aug-23</i>	<i>31-Dec.-24</i>
1.3.1	Task PTEs to assist beneficiary States as needed through workshops, trainings, guidance material, operational procedures, infrastructure, etc.,	AFI States	PTC	16	15-Aug-23	31-Aug-23
1.3.2	Provide assistance to States as needed through workshops, trainings, development of guidance material, operational procedures, infrastructure, regulatory documents, etc.	AFI States	Tasked PTEs	487	1-Sep.-23	31-Dec.-24
1.3.3	Coordinate the assistance activities conducted by PTEs	AFI States	PTC	487	1-Sep.-23	31-Dec.-24
	Provide monthly report to the PTC on the implementation of the activities of assistance to States	States assisted	PTEs	487	1-Sep.-23	31-Dec.-24
1.3.4	Provide quarterly and annual Report on the progress of the Project activities	States assisted	PTC	487	30-March. -23	31-Dec.-24
<b>1.4</b>	<b><i>Project Exit Wrap up</i></b>			<i>30</i>	<i>1-Dec.-24</i>	<i>31-Dec.-24</i>

1.4.1	Review the Project achievements and failures	Beneficiary States	PTC	30	1-Dec.-24	31-Dec.-24
1.4.2	Document the lessons learnt and formulate recommendations for improvement	Prioritized beneficiary States	PTC	30	1-Dec.-24	31-Dec.-24
1.4.3	Present the termination report to the IIM/SG	Prioritized beneficiary States	PTC	30	1-Dec.-24	31-Dec.-24