DOMAIN : IIM (Infrastructure & Information Management)

METPROJECT.2: Implementation of Terminal Area Warnings and Forecasts, Provision of WAFS Forecasts and Optimization of OPMET data exchanges

Coordinator: Senegal

AFI Region	**Project Description**		
Programme	**MET Project 2**	**Start**	**End**
Aeronautical Meteorology (**Project Facilitators: *ICAO ROs/MET, Dakar & Nairob4i***)	Implementation of Terminal Area Warnings and Forecasts, Provision of WAFS Forecasts and Optimization of OPMET data exchanges in the AFI Region *Project-Team coordinator: Senegal* *9 Experts contributing to the* **Project II-** *Botswana, South Africa, Niger, Nigeria, Togo, Uganda, Ethiopia, Mauritania, Kenya, Cote d'ivore , Ghana, ASECNA, IFALPA, IATA, WMO*	2021	2022

Objective	Assist States in the implementation of: a) Aerodrome warnings and forecasts (AD WRNG) and wind shear warnings and alerts (WS WRNG) in accordance with ICAO Annex 3, Tables A6-2 and A6-3, concerning the preparation, issuance and distribution at the terminal area, of concise information of meteorological conditions which could adversely affect aircraft on the ground, including parked aircraft, and the aerodrome facilities and services. For aerodromes where wind shear is considered a major safety factor, wind shear warnings will give concise information on the observed or expected existence of wind shear which could adversely affect aircraft on the approach path or take-off path or during circling approach between runway level and 500 m above that level and aircraft on the runway during the landing roll or take-off run. Where local topography has been shown to produce significant wind shears at heights in excess of 500 m above runway level, then 500 m will not be considered restrictive. b) the World Area Forecast System (WAFS) in the standards and recommended practices of Annex 3 and Part V – MET of the AFI, Volumes I, II and III with regard to the use of WAFS products, by which the world area forecast centre (WAFC) in London provides aeronautical meteorological en-route forecasts in uniform standardized formats and disseminated in the AFI region through the Secure Aviation Data Information System (SADIS) for information relating to air navigation. States will be also assisted in the implementation of the International Airways Volcano Watch (IAVW) including the implementation of the operational procedures in ICAO Doc 9766 and the AFI Volcanic Ash Contingency Plan (VACP) activities; c) AFI OPMET data Exchange Management and OPMET databanks (RODBs) described in the AFI Meteorological Bulletin Exchange (AMBEX) Handbook in accordance with the provisions in ICAO Annexes 3 and 10 and AFI ANP Volumes I, II and III Part V- Meteorology, for the preparation, issuance, distribution and monitoring of OPMET information (METAR, SPECI, SIGMET, TAF, AIREP, Volcanic Ash and tropical cyclones advisories).

Scope	a) The terminal area warnings part of the project will comprise all AFI International aerodromes listed in Table MET II-2 of the AFI ANP Volume II and aerodromes affected by wind shear events; b) The WAFS and IAVW part of the project is related to all AFI aerodromes listed in the AFI ANP Table MET II-2 and meteorological watch offices listed in column 4 of Table MET II-1 of the AFI ANP. c) The AMBEX part of the project will include AFI aerodromes listed in Table MET II-2 of the AFI ANP including Dakar and Pretoria RODBS, Bulletin Compiling Centres (BCCs), National OPMET Centres (NOCs), AFI volcanic ash advisory centre (VAAC) in Toulouse, tropical cyclone advisory centre (TCAC) in La Reunion and WAFC in London.
Metrics	a) Terminal area warnings metric: Number of international aerodromes listed in AFI ANP Table MET II-1, with Aerodrome warnings and wind shear (where warranted) implemented by December 2022 b) WAFS and IAVW metrics: Number of MET Provider States listed in AFI ANP Table MET II-2, with secure SADIS FTP implemented by December 2022 – and - Number of MET Provider States listed in AFI ANP Table MET I-1 having volcanoes observatories, implementing Doc9766 procedures by December 2022. c) AMBEX metrics: Number of international aerodrome /MOs with AMBEX procedures implemented byDecember 2022
Strategy	All tasks will be carried out by MET experts nominated by AFI States participating in the project, led by the Project-Team Coordinator and under the supervision of the Project Facilitators (ROs/MET, Dakar and Nairobi) through the "GoTo Meeting" tool. 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). For the purpose of collaborative decision-making, meetings will be held with the concerned entities (States, Industry, Secretariat).
Rationale	a) Terminal area warnings: The lack of implementation by a number of AFI States in International aerodromes, of information concerning weather phenomena which could adversely affect aircraft on the ground, including parked aircraft, and the aerodrome facilities and services; and aircraft on the approach path or take-off path or during circling approach and their repercussions on the provision of air navigation services call for tools to allow the personnel involved in the different air navigation areas to receive, properly use, and disseminate quality information related to such events. b) WAFS and IAVW: The gridded WAFS forecasts improves accuracy, timely distribution, and usefulness of forecasts to facilitate airspace optimisation. The volcanic events with ash dispersion in the AFI Region and their repercussions on the provision of air navigation services call for tools to enable the personnel involved in the different air navigation areas to receive, properly use, and disseminate quality information related to such events. c) AMBEX: the full implementation of the AMBEX scheme will increase the availability of quality OPMET in International aerodromes and also enable integration of OPMET data exchange into SWIM.

Related projects	All APIRG specifically projects related to: ✓ Implementation of Improved Airport Operations through Airport-CDM (B0/1-ACDM) ✓ Implementation of Optimization of Approach Procedures including Vertical Guidance (B0/1-APTA) ✓ Implementation of Improved Operations through Enhanced En-Route Trajectories (B0/1-FRTO) ✓ Implementation of Improved Flexibility and Efficiency in Descent Profiles (CDO) (B0/1-CDO) ✓ Implementation of Improved Flexibility and Efficiency in Departure Profiles —Continuous Climb Operations (CCO) (B0/1-CCO)

Project Deliverable		Relationship with the performance - based regional plan	Responsible Party	Status of Implementation	Date of Deliver	Comments
Terminal Area Warnings (AD WRNG & WS WRNG(where applicable))	Report on Mission to States not compliant with terminal area warning facilities as stipulated in Annex 3 and the AFI eANP ,	**AMET PFF-2**	✓ Project Facilitator ✓		where applicable	
	Detailed guidance provided to States not issuing terminal area warnings and forecasts	**AMET PFF-2**	✓ Project Facilitator	✓	where applicable	
	List of States implementing aerodrome warnings, wind shear warnings/alerts, distributed	**AMET PFF-2**	✓ Project Facilitator ✓	✓	Where applicable	
WAFS and IAVW	a) An updated list of States with active volcanos not implementing IAVW (volcano observatories and VONA), established and b) Remedial action plans developed for the concerned States	**AMET PFF-2**	✓ Project Facilitator ✓ Project Team Coordinator	✓	where applicable	✓
	AFI volcanic ash contingency plan (AFI VACP) exercises conducted	**AMET PFF-2**	✓ Project Facilitator- follow up with every State ✓		Annually at National Level- to start with	✓

AMBEX	a) A report on quarterly assessment of the availability and quality of OPMET data in the region, issued, and b) Remedial action plans developed for the concerned States	**AMET PFF-2**	Project Team Coordinator ✓	✓	Quarterly	✓
	Seminar on the implementation of AMBEX procedures including RODBs, conducted	**AMET PFF-2**	✓ Project Team Facilitator ✓	✓	when necessary	✓