



RWANDA

CIVIL AVIATION AUTHORITY

**ADVISORY CIRCULAR
RCAA-AC- MET 003D**

DEVELOPMENT OF TRAINING PROGRAMME FOR TECHNICAL STAFF PROVIDING METEOROLOGICAL SERVICES FOR AIR NAVIGATION

1.0 PURPOSE

This Advisory Circular (AC) is issued to provide general information and guidance on development of a training programme for technical staff providing meteorological services for air navigation as required under Regulation 24.070 of Civil Aviation (Aeronautical Meteorological Service) Regulations.

2.0 References.

- 2-1 Part 24 of Rwanda Civil Aviation Regulations
- 2-2 Rwanda Civil Aviation Technical Standards (RCATS-MET001)
- 2-3 WMO-No 49, Volume 1- Part V & Part VI and Appendix A.
- 2-4 WMO-No 1083- Manual on the Implementation of Education and Training Standards in Meteorology and Hydrology, Volume I- Meteorology

3.0 Guidance and procedures

3.1 General

Meteorological services plays an essential role for air navigation and is required to ensure the safety and efficiency of air navigation operations. Details of the meteorological services provided are included in the Technical Standard for aeronautical meteorological service. A suitable number of Meteorological offices, watch offices and aerodrome meteorological stations shall be established to provide information required for air navigation services.

Information provided includes observations and reports of actual weather conditions at aerodromes and forecasts. This information is made available at aerodrome meteorological offices and is disseminated as appropriate to aeronautical users including operators, flight crew members, air traffic services units, search and rescue units, airport management and others concerned with the conduct, or development of air navigation.

The Authority is hereby recommending a systematic approach in the provision of training to technical staff engaged in provision of meteorological services for air navigation.

3.2 Categories of personnel to be trained and requirements for training

This circular covers the following categories of personnel

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- 1) Aeronautical Meteorological forecasters (Meteorologists)-AMF
 - 2) Aeronautical Meteorological Technicians (observers)-AMO

3.2.1 Initial Qualification of Meteorological Personnel

i) Aeronautical Meteorological forecasters (Meteorologists)-AMF

To become a Meteorologist, it is necessary to complete successfully the Basic Instruction Package for Meteorologists (BIP-M) requirements at university-degree level as defined by the World Meteorological Organization in its regulations and guidelines nce documents.

ii) Aeronautical Meteorological Technicians (AMO)

Meteorological technicians (Observers) should have successfully completed the Basic Instruction Package for Meteorological Technicians (BIP-MT) requirements as defined by WMO.

3.3 Approved training organizations

A number of training institutions recognized by WMO provide education and training for Meteorologist and meteorological technicians. The authority shall recognize training conducted to any WMO recognized training institution.

3.4 Requirements for training

3.4.1 General training requirement for aeronautical meteorological personnel (AMP)

The meteorological service provider shall have a training and education programme to provide continuing education and training for all its Aeronautical Meteorological Personnel (AMP) to attain and sustain their competency.

The Aeronautical Meteorological Forecaster (AMF) and Aeronautical Meteorological Observer (AMO) providing service for international air navigation shall comply with the knowledge, skill and competency qualifications as required by World Meteorological Organisation (WMO).

i) Qualifications, training and competency requirements for Aeronautical Meteorological Forecasters (Meteorologist)

The basic education and training of meteorological personnel engaged in the provision of Meteorological forecasts for aeronautical purposes is similar to that of all meteorological personnel engaged in operational weather forecasting. An Aeronautical Meteorological Forecaster (AMF) shall be a meteorologist; a person who holds a university degree or equivalent; has acquired an appropriate level of knowledge of mathematics, physics, chemistry and computer science, and has completed the Basic Instruction Package for Meteorologists (BIP-M). Details on the required knowledge and skills are given in WMO - No.1083 and WMO-No 49, Volume 1- Part V & Part VI and Appendix A.

The AMF should be familiar with:

- phenomena that may impact flight operations (aircraft Icing, Tropical Cyclone, Volcanic Ash Advisory Information, AIRMET Information, Aerodromes Warning and Wind shear warnings)
- Meteorological Service for operators and flight crew members;
- Dissemination of Aeronautical Meteorological Information;
- Aircraft Observations and Reports;
- Coordination between aeronautical Met Services , ATS ,AIS and SAR units;

Competency requirements for AMF

The meteorological service provider shall establish procedures to ensure the competency of AMF to provide service for international air navigation. Following are the minimum generic competencies that should be demonstrated by all Aeronautical MET Forecasters:

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- a) Analyse and monitor continually the weather situation;
 - b) Forecast aeronautical meteorological phenomena and parameters;
 - c) Warn of hazardous phenomena;
 - d) Ensure the quality of meteorological information and services;
 - e) Communicate meteorological information to users.

ii) Qualifications, training and competency requirements for Aeronautical Meteorological Technicians /Observers (AMO)

The basic education and training of meteorological personnel engaged in meteorological observation for aeronautical purposes are similar to that of all meteorological personnel engaged in observation and reporting of weather for other sectorial application. Details on the required knowledge and skills are given in WMO -No.1083 and WMO-No 49, Volume 1- Part V & Part VI and Appendix A.

An Aeronautical Meteorological Technician shall be a person who has successfully completed the Basic Instruction Package for Meteorological Technicians (BIP-MT) from WMO-certified training institution.

Competency requirements for AMO

An AMO should be able to demonstrate the following competencies:

- a) Monitor continually the weather situation
- b) Observe and record aeronautical meteorological phenomena and parameters;
- c) Ensure the quality of system performance and of meteorological information;
- d) Describe the impact of a range of meteorological conditions on aviation operations and procedures
- e) Communicate meteorological information to users.
- f) Assist the aeronautical Meteorological forecasters.

The training and qualifications requirements recommended in this circular are the minimum necessary for all AMF and AMO providing services for international air navigation.

3.4.2 Specialized Meteorology training types

On addition to the above qualification of Meteorological personnel in aviation, the specialized courses and any other training related to new technology applies in meteorology may be provided as determined to be necessarily.

After each training, on-job-training must be done before the trainee is approved to carry out his/her specified duties

3.4.4 Refresher training

The MET service provider shall determine the type of refresher training necessary to meet operational requirements in line with the Rwanda Civil Aviation Technical Standards- Aeronautical MET Service (RCATS-MET001). Additionally, in order to cope with changing technology and operating procedures, it is necessary that the designated Meteorological service provider provide personnel with courses of instruction designed to bring knowledge and skills up to date.

Refresher courses may range from in-house to fully-fledged training in specialized WMO training organizations.

3.5 Training records

The Meteorological service provider shall ensure that training records are properly kept for inspection purpose.

The personnel training records shall include duties and responsibilities, qualification and training certificates and any other documents related to training and approval of jobs performed.

End of Advisory Circular