

**Recognized World Meteorological  
Organization (WMO)  
Regional Training Centre:  
RTC: Pretoria**



# Background for RTC and CoE in satellite training

Accredited Nationally with the Sector Education and Training Authority for Transport (TETA SETA)	since 2007
Recognized WMO Centre of Excellence (CoE) in satellite training - for SADC.	since 2010
Recognized as a World Meteorological Organization (WMO) Regional Training Centre (RTC) - for SADC and beyond. Had a review in September 2018. Re-confirmed	since May 2011



WMO's recognized CoE's



# Purpose of the Presentation

- To give you an overview on the courses that the RTC gives on an annual basis.
- University courses, Met Tech and Forecasters
- Commercial courses
- BIP-M/MT review as well as
- WMO Global Campus

# Training of Meteorologists and Climatologists: University courses

## This qualifications are prescribed mostly by WMO

- Meteorologists - Basic Instruction Package for Meteorologists (BIP-M) (WMO-1083)
- Meteorological Technician – Basic Instruction Package for a Meteorological Technician (BIP-MT) (WMO-1083)

See: [https://www.wmo.int/pages/prog/dra/BIP-M\\_and\\_BIP-MT\\_ComplianceMapping.html](https://www.wmo.int/pages/prog/dra/BIP-M_and_BIP-MT_ComplianceMapping.html)

# Training of Meteorologists and Climatologists: Competencies

## **This Training is prescribed mostly by WMO: Competencies**

- Forecaster – Different Competencies (as published) (Public weather, Marine and Aviation)
- Climatologists – Competencies (as published)

See <https://www.wmo.int/pages/prog/dra/etrp/competencies.php>

# SAWS Long Term Courses

## METEOROLOGICAL TECHNICIANS as per qualification and competencies

- Training takes place at the RTC
- The training is accredited by SETA TETA which is linked to the South African Qualification Authority and thus valid in SADC. In the process to have it recognized by QCTO.
- Is compliant to the Basic Meteorological Package for Meteorological Technicians (BIP-MT) but which also includes electronic instrumentation.
- (The RTC does not handle the entry level requirements).

# Long Term Courses

## POST GRADUATE CERTIFICATE IN FORECASTING

### Training takes place at the RTC

- Run in association with Enterprise at the University of Pretoria. As part of the agreement, SAWS gets all the lecturer fees back.
- Entry requirements – nearly compliant to the Basic Meteorological Package for Meteorologists.

### Alignment to the approved WMO competencies.

- > Aviation 100%
- > Marine 90% complete
- > Public Weather – 100% on the agreed competencies
  - Have started with the impact based forecasting.

# Workshops for SADC and Beyond

Aviation competencies (in negotiations with UKMO)	Ad Hoc basis
Meteosat Second Generation (MSG) Satellite interpretation – third generation information is coming	Every year
Marine MSG interpretation (ad hoc)	Every second year
Climate satellite application	Every second year
Severe Weather Forecasting Demonstration Project	(if funds are available)
Sponsored Satellite workshops (Forecasters, Marine and Climate)	
On request - Radar and other specialist subjects	



# Additional Training in Planning

- The training of Climatologists needs to comply with the Competencies for Climatologists. We are in discussions with universities to adjust their training.
- The training of Instrument Technicians to maintain Instrumentation.
- The Managerial training of Meteorological Managers (extension in scope for the RTC) Looking for an online partner .
- TQM – either as assistance or as compliance
- Any other request can be sent to the email on the last slide.

# Commercial Options:

From the Long Term courses, many subjects (or modules) can be given as short courses and these course are run as commercial activities. These are run with the same pool of lecturers that is responsible for the long term courses.

They include:

Aviation Forecasting

Marine Forecasting

Radar Meteorology

Satellite meteorology

Public Weather impact based forecasting

Instrument Maintenance

Basic Climatology

Cloud formations, etc

# ICAO Aviation Meteorological Observation (AMO) Competency

Based on the ICAO AMO competency criteria standards

Aviation competency certificate issued upon successful completion

## **Option 1** – Intake *without any* experience:

- Nine weeks full time.
- Includes the development of a PoE aligned to the AMO competency standards.

## **Option 2** – Intake *with some previous observation* experience

- Seven week Distance Learning activities on Moodle
- Two week full-time course blended with MOODLE activities including compilation of PoE aligned to AMO competency standards

# ICAO Aviation Meteorological Forecasting (AMF) Competency

Based on the ICAO AMF competency criteria standards

Aviation competency certificate issued upon successful completion

Pre-requisite requirement is a BIP-M with previous forecasting experience and English

4 month Blended learning course with RTC competency certificate –

- Twelve week Distance Learning activities on Moodle
- 3 Week contact (forecasting desk on aviation hazards)
- 1 Week compilation of PoE aligned to AMF competency standards

**February to May**

**July to October**

✓ **Other options exist but it must be for experienced Weather forecasters**

# Short Courses for Weather Forecasting and Meteorological Technician

- Each of the subjects can be given as short courses for continuous professional development.
- Pre-requisite requirement is a BIP-M (forecasting) with English.
- Pre-requisite requirement mathematics and physical science on secondary school level (Meteorological Technician).
- Will only be presented if the minimum number of learners is reached.
- Each subject has specific entry requirements and the duration is subject to the specific credits.

# Long Term Courses

## METEOROLOGICAL TECHNICIANS

<u>COURSE</u>	<u>DURATION</u>	<u>VENUE</u>	<u>COST FOR 2019</u>
<p><b><u>National Certificate: Weather Observations</u> including the aviation competencies for aviation observers.</b></p> <p>This course is BIP-MT compliant (Mid level Meteorological Technician course)</p> <p><u>Pre-requisite requirements:-</u> Mathematics, Physical Science and English passed with 50% or higher on graduation from high school/secondary school level. Registration forms can be requested from the RTC email link.</p> <p><b>Registrations close end November every year</b></p>	<ul style="list-style-type: none"><li><input type="checkbox"/> 10 months</li><li><input type="checkbox"/> February to November</li></ul>	RTC at the South African Weather Service	40 000.00 ZAR

# Long Term Courses

## POST GRADUATE CERTIFICATE IN FORECASTING

<u>COURSE</u>	DURATION	VENUE	COST FOR 2019
<p>Post Graduate Certificate Programme in Weather Forecasting - <b>including the aviation competencies for aviation forecasters.</b></p> <p>Pre-requisite requirement is the BIP-M or very near BIP-M (the additional courses needs to be completed before graduation)</p> <p><b>Registration forms from the RTC email link.</b></p> <p><b>Registration closes end November every year</b></p>	<ul style="list-style-type: none"><li><input type="checkbox"/> 10 months</li><li><input type="checkbox"/> February to November</li></ul>	RTC at the South African Weather Service	52 000.00 ZAR  This is the university fee for 2019.

# Enhancement and Resource Mobilization

- To be able to enhance the training of Meteorological personnel, especially SADC, additional funds will have to be sought.
- The Forecasters and Meteorological Technicians of SADC need to comply with the competencies (Continuous Professional Development).  
There are courses through the RTC: Pretoria that are dedicated for that.
- A proposal for funding was submitted to NEPAD for the competency training (Good practices and skills development for Africa).



# Enhancement and Resource Mobilization

## **Further Funding is also required for:**

- Funding for the development and registration of additional qualifications.
- Funding for the enhancement and professional development of the MOODLE site and administration there-off.
- Funding for the managerial training development and running of that.

## **Suggest that MASA look at:**

- Funding for the SWFDP workshop and other specialized workshops.
- Creation of an Education and Training Fund for the Meteorological Personnel within SADC.

# BIP-M/MT review

The BIP for Meteorologists as well as Meteorological Technicians are under review.

Working group to report back in as soon as travel is possible after COVID-19.

BIP-MT – looks like it will consist out of Meteorological Guidelines and competency guideline (to take into account the additional roles they play)

BIP-M: they are looking at the whole BIP-M but is moving slowly due to the international lockdown. Looks like it will have 2 outputs: first for Forecasters and ..second for researchers

# WMO Global Campus

WMO created a calendar where the meteorological related courses are listed and advertised.

Link is: <http://learningevents.wmo.int/#/>

# The End

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<http://rtc.weathersa.co.za/>

<https://public.wmo.int/en/resources/training/wmolearn>