



WMO-CGMS Virtual Laboratory
for Education and Training in Satellite Meteorology

ACTIVITY REPORT

Period: September 2012 to December 2013
Centre of Excellence: Kenya

GENERAL INFORMATION ABOUT THE CENTRE OF EXCELLENCE (CoE) AND THE DEVELOPMENT OF VLAB TRAINING ACTIVITIES

1) What were the major achievements of your CoE during this reporting period?

- a) IMTR for the first time conducted the EISAC in two phases; the online phase was five weeks and face to face was one week.
- b) IMTR in collaboration with COMET and WMO facilitated an online Basic Hydrology course for the African region.
- c) IMTR initiated collaboration with Caribbean Institute for Meteorology and Hydrology, with the support of WMO, in development of an online continuing professional development course in Aeronautical Meteorological Forecaster competencies
- d) IMTR participated in the development of ASMET 7 on fog forecasting.
- e) IMTR hosted the ASMET Expert team for a meeting to finalize ASMET 7 modules
- f) IMTR participated as facilitator in the Severe Weather demonstration workshop in Bujumbura, Burundi.
- g) IMTR has incorporated remote sensing and satellite meteorology in all BIP-M and BIP-MT courses.
- h) IMTR offered an online lecture on Tropical Meteorology to the University of Cape Town in South Africa in collaboration with SAWS.

2) What were the main difficulties of your CoE during this reporting period?

- a) Internet connectivity challenges within the region
- b) Distance learning has not been fully embraced in the region.
- c) Technological challenges (communication tools i.e. software like Centra) across the region
- d) Limited human resource capacity in the instructional design for distant courses.

3) Who provides support in the production of your training materials (e.g. produced by own trainers, support from Satellite Operators, IT staff, University researchers and lecturers, etc)?

- a) IMTR trainers
- b) IMTR researchers develop case studies
- c) Collaboration with EUMETSAT
- d) Through COMET

4) Is any kind of Learning Management System (e.g. Moodle, Blackboard, etc) used by your CoE to conduct training activities?

Yes, Moodle

5) Is any kind of Online Conferencing System (e.g. Saba Centra, Blackboard Collaborate, GoToWebinar, etc) used by your CoE to conduct training activities?

Limited

6) What kind of training is provided to the trainers of your CoE and at what frequency?

- a) Training of trainers, both online and face to face courses – At least twice a year
- b) Visiting trainers
- c) Induction for new trainers – when the need arises
- d) Management courses – continuous development
- e) Curriculum Development
- f) Research Methods – Once a year

7) Can you suggest ways for the VLab (including CoEs, Supporting Satellite Agencies, Partner Programmes, WMO Space Programme, VLab Co-chairs and TSO) to provide better support to your CoE?

- a) More opportunities for visiting trainers
- b) Training on moodle
- c) Capacity building in instructional design, development and delivery of online courses.
- d) Seminars on emerging technologies in virtual learning

8) Please use the table below to list any training materials you may have developed over this reporting period:

| Title of training material | Type of resource (e.g. text book, video, recorded presentation, Moodle course, webcast, PowerPoint slides) | Availability of resource (e.g. open educational resource ¹ , institutional use only) | Submitted to ESRC (Yes/No) |
|---|--|---|----------------------------|
| Case study on severe weather forecasting (Kenya) | PowerPoint slides | Open educational resource | No |
| ASMET module 7_ Fog forecasting | Web based | Open | No |
| Continuous Professional development course on Aeronautical Meteorological Forecaster Competencies | Under Development | | |

9) Is your CoE working closely together with the CoE's sponsoring Satellite Operator/Agency in VLab training activities? Can you suggest ways to improve this collaboration?

¹ Please also indicate if the Creative Commons License was applied to the resource.

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- a) Yes, IMTR works closely with EUMETSAT
- b) **Ways to improve collaboration include:**
- More exchange programmes (visiting trainer placements)
 - Capacity building in satellite image processing
 - Provision of data access licenses for training purposes
 - Benchmarking exchanges with other CoEs
 - Support for evaluation of the impacts of the EISAC (EUMETSAT-IMTR Satellite Application Course) training on the outputs of the NMHs in the region.

10) Please use this space for additional remarks you may wish to make relating to the delivery of training by your CoE.

11) The next page presents a table containing all training events entered by this CoE in the VLab Online Calendar of Events during this reporting period. Please complete the table with information about the number of trainees and Country of origin of trainees that attended the events. If the CoE had conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Calendar of Events, please add them to the table.

| Date | Title | Location | WMO region | Host | Type | Language | Number of trainees | Country of origin of trainees |
|--------------------------|------------|----------|------------|--------------|--------|----------|--------------------|--|
| JANUARY 2011 to DEC 2012 | AMTC 12 | Class - | RA1 | IMTR/WMO-RTC | Course | English | 9 | Namibia Kenya |
| JANUARY 2012 to DEC 2013 | AMTC 13 | Class | RA1 | IMTR/WMO-RTC | course | English | 11 | Swaziland Tanzania Botswana Namibia |
| JANUARY 2013 to DEC 2014 | AMTC 14 | Class | RA1 | IMTR/WMO-RTC | Course | English | 8 | Cameroon Zambia Namibia |
| April/May 2013 | EISAC-XI-E | Online | RA1 | IMTR/WMO-RTC | course | English | 24 | Sierra Leone Mauritius Liberia Ghana Cape Verde South Sudan Ethiopia Zimbabwe Mozambique Zambia South Africa Gambia Egypt Malawi Kenya |

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|-----------------------|--|---------|-----|--------------|--------|---------|----|--|
| April/May 2013 | BHSDL (Basic Hydrological Sciences Distant Learning) | Online | RA1 | IMTR/WMO-RTC | course | English | 45 | Botswana Eritrea Mauritius Liberia Ghana Sudan Ethiopia Mozambique Zambia South Africa Namibia Egypt Kenya Seychelles The Gambia Uganda |
| JUNE 2011 to DEC 2012 | MMTC-9 | Class - | RA1 | IMTR/WMO-RTC | Course | English | 8 | Namibia Kenya |
| JUNE 2013 to DEC 2014 | MMTC-10 | Class | RA1 | IMTR/WMO-RTC | Course | English | 3 | Kenya |

| | | | | | | | | |
|---------------------------------|------------|---------|-----|--------------|--------|---------|----|--|
| 1-5 JULY 2013 | EISAC-XI-E | Class | RA1 | IMTR/WMO-RTC | course | English | 19 | Sierra Leone Mauritius Liberia Ghana Cape Verde South Sudan Ethiopia Zimbabwe Mozambique Zambia South Africa Gambia Egypt Malawi Kenya |
| JULY 2013 to AUGUST 2013 | ADMIDMC | Class | RA1 | IMTR/WMO-RTC | Course | English | 7 | Liberians |
| SEPTEMBER to OCTOBER 2012 | SPAeM | Class - | RA1 | IMTR/WMO-RTC | Course | English | 6 | Burundi Kenya |

Key

| | | |
|------------|---|---|
| AMTC | - | <i>Advanced Meteorological Technicians Course</i> |
| EISAC-XI-E | - | <i>EUMETSAT-IMTR Satellite Application Course</i> |
| BHSDL | - | <i>Basic Hydrological Sciences Distant Learning</i> |
| MMTC | - | <i>Middle Meteorological Technicians Course</i> |
| AMIDMC | - | <i>Advanced Meteorological Instruments & Data Management Course</i> |
| SPAeM | - | <i>Specialised Aeronautical Meteorological Course</i> |