#### **WMO OMM**

World Meteorological Organization Organisation météorologique mondiale Organización Meteorológica Mundial Всемирная метеорологическая организация المنظمة العالمية للأرصاد الجوية 世界气象组织



Secrétariat

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Our ref.: 00250/2025/SI/ETR/RTCs

27 January 2025

Annexes: 4 (Annexes I and II available in English only)

Subject: WMO RTCs Annual Reports for 2024 and Course Offering Plans for 2025

Action required: To kindly provide your input at your earliest conveniences, but preferably

before 21 February 2025

Dear Sir/Madam,

I wish to extend my sincerest appreciation to you and all the staff members of the WMO Regional Training Centre (RTC) you are hosting, for the continued contributions to the WMO Education and Training Programme (ETRP) in 2024. As a key component of the WMO RTC network (kindly refer to Annex I for the list), your RTC plays a vital role in helping WMO meet its priorities in serving Members effectively.

In order to enhance the visibility of your RTC and its contributions to Members, I kindly request your RTC to submit its Annual Report for 2024 and Course Offering Plan for 2025 directly to the Education and Training (ETR) Office at tra@wmo.int, at your earliest convenience, but preferably before **21 February 2025**. The electronic report template can be downloaded or requested to the ETR Office. If your RTC has more than one component, please ensure that each component of your RTC submits a separate report. This will allow WMO to prepare reports for constituent body meetings and coordinate co-sponsored events. Should you or your RTC have any questions or require clarification regarding the report, please do not hesitate to contact the ETR Office by email.

I kindly request you to provide WMO with updated information about the contact details of the Director of each RTC component and, where the RTC is made up of multiple components, the Coordinator of the RTC by using the form in Annex II. Guidance on the roles and responsibilities of each of the parties, as well as the criteria for the designation of WMO RTCs are provided in the *Technical Regulations, Volume I* – General Meteorological Standards and Recommended Practices (WMO-No. 49, pp. 34–36 and pp. 49–50) and extracted and attached as Annex III and Annex IV respectively for ease of reference.

Wishing you and your RTC the very best for the New Year.

Yours faithfully,

Prof. Celeste Saulo Secretary-General

### WMO REGIONAL TRAINING CENTRES/COMPONENTS

Region	Member	WMO RTC/Component	Focal Point	Representative/ Director
I	Algeria	Institut Hydrométéorologique de Formation et de Recherches (IHFR)	Mr Mohammed Tabet Aoul	Mr Sid Ahmed Fellahi
I	Angola	Instituto Nacional de Meteorología e Geofísica (INAMET)	Mr Francisco Osvaldo Sebastiao Neto	Dr Joao Afonso
I	Cameroon	National Higher Polytechnic School of Yaoundé	Dr Samuel Kaissassou	N/A
I	Egypt	The Egyptian Meteorological Authority (EMA)	Dr Mohammed Tawfik	N/A
I	Kenya	Institute for Meteorological Training and Research (IMTR)	Mr Walter Nganyi	Mr Walter Nganyi
I	Kenya	University of Nairobi (UON)	Dr Franklin Joseph Opijah	Dr Franklin Joseph Opijah
I	Madagascar	Ecole Nationale d'Enseignement de l'Aéronautique et de la Météorologie (ENEAM)	Mr Vaugirand Danny Jocelyn Razafindratovo	Randrimaifidy Hugues Emmanuel
I	Madagascar	Ecole Supérieure Polytechnique à Antananarivo (ESPA)	Dr Toky Nandrasana Ramanakoto	Raholijao Nirivololona
I	Niger	Centre Régional Agrhymet (AGRHYMET)	Dr Moussa Waongo	Dr Mahalmoudou Hamadoun
I	Niger	Ecole Africaine de la Météorologie et de l'Aviation Civile (EAMAC)	Mr Diakaria Kone	Mr Mathiaco Bessane
I	Nigeria	Federal University of Technology, Akure (FUTA)	Assoc. Prof. Ademola AKINBOBOLA	Assoc. Prof. Ademola AKINBOBOLA
I	Nigeria	Meteorological Research and Training Institute (MRTI)	Mr Oluwaseun Wilfred Idowu	Prof. Peter Odjugo
I	South Africa	South African Weather Service (SAWS)	Mr Jannie Stander	Mr Jannie Stander
II	China	China Meteorological Administration Training Centre (CMATC)	Ms Jinyang Chen	Mr Zhuang Guotai

Region	Member	WMO RTC/Component	Focal Point	Representative/ Director
II	China	Nanjing University of Information, Science and Technology (NUIST)	Prof. Cheng Fang	Prof. Li Beiqun
II	China	Nanjing Research Institute of Hydrology and Water Conservation Automation and Yangzhou University (NIHWA-YZU)	Ms Ruide Zhou	N/A
II	India	Indian Institute of Technology Roorkee (IITR)	Prof. Sumit Sen	Prof. Sumit Sen
II	India	India Meteorological Department, Meteorological Training Institute (IMD-MTI)	Mr Gaurishankar Sawaisarje	Dr Geeta Agnihotri
II	India	India Meteorological Department, Information Communication and Instrumentation Training Centre (IMD-ICITC)	Ms Suman Gurjar	Dr Mrutyunjay Mohapatra
II	India	National Water Academy (NWA)	Dr Dattakumar Sopan Chaskar	Dr Shri S N Pande
II	Iran, Islamic Republic of	Islamic Republic of Iran Meteorological Organization (IRIMO)	Dr Saviz Sehat	Dr Sahar Tajbakhsh
II	Iraq	Iraqi Meteorological Organization (IMO)	Dr Sajidah Ali Hasan	Dr Samah Abd Kadhum
II	Republic of Korea	Korea Meteorological Administration (KMA)	Ms Dongbong Yoo	Dr O-Ung Kwon
II	Qatar	Qatar Aeronautical Academy (QAA)	Dr P.V. Revikumar	Mr Abdulla Mohammed Al Mannai
II	UAE	National Centre of Meteorology (NCM)	Mr Khalid Al Obaidli	N/A
II	Uzbekistan	Tashkent Hydrometeorological Professional College (THMPC)	Ms Gulnara Asizova (For Endir Daulatov)	Prof. Victor E. Chub
III	Argentina	Servicio Meteorológico Nacional (SMN)	Mr Pablo Talarico	Dra. Romina Nahir Mezher
III	Argentina	Universidad de Buenos Aires (UBA)	Prof. Moira Doyle	Prof. Claudio Menéndez

Region	Member	WMO RTC/Component	Focal Point	Representative/ Director
III	Argentina	Facultad de Ingeniería y Ciencias Hídricas, UNL (FICH-UNL)	Dra. Ing. Marcela Perez	Dra. Ing. Marcela Perez
III	Brazil	Centro Virtual de Ensino e Treinamento em Meteorología (CVEM)	Ms Helenir Trindade De Oliveira	Ms Helenir Trindade De Oliveira
III	Peru	Universidad Nacional Agraria La Molina (UNALM)	Profa. Victoria Doris Calle Montes	Profa. Victoria Doris Calle Montes
III	Peru	Servicio Nacional de Meteorología e Hidrología (SENAMHI)	Dra. Teresa García Vilca	Dra. Teresa García Vilca
III	Venezuela, Bolivarian Republic of	Universidad Central de Venezuela (UCV)	Prof. Abraham Salcedo	Prof. Abraham Salcedo
IV	Barbados	Caribbean Institute for Meteorology and Hydrology (CIMH)	Dr David Farrell	Dr David Farrell
IV	Costa Rica	Universidad de Costa Rica (UCR)	Dr Marcial Garbanzo Salas	N/A
IV	Costa Rica	Instituto Meteorológico Nacional (IMN)	Mr Werner Stolz España	N/A
V	Indonesia	Agency for Meteorology, Climatology and Geophysics (BMKG)	Dr Nelly Florida Riama	Dr Nelly Florida Riama
V	Indonesia	Centre for Water Resources and Settlements Competency Development (CWRSCD)	Dr Nurlia Sadikin	Mr Alexander Leda
V	Philippines	Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)	Ms Shirley J. David	Dr Vicente B. Malano
V	Philippines	University of the Philippines (UP)	Dr Cherry Ringor	Dr Cherry Ringor
VI	Israel	Postgraduate Training Centre for Applied Meteorology (PTCAM)	Dr Lilach Lev	Mr Nir Stav
VI	Italy	National Research Council – Institute for BioEconomy (CNR-IBE)	Dr Marina Baldi	Dr Marina Baldi
VI	Russian Federation	Advanced Training Institute of Roshydromet (ATI)	Ms Maria Mamaeva	Prof. Oleg Lomakin

Region	Member	WMO RTC/Component	Focal Point	Representative/ Director
VI	Russian Federation	Moscow Hydrometeorological Technical School (MGMTEH)	Ms Nikitina Irina Pavlovna	Ms Nikitina Irina Pavlovna
VI	Russian Federation	Russian State Hydrometeorological University (RSHU)	Mr Kirill Bogdanov	Mr Valery Mikheyev
VI	Spain	Agencia Estatal de Meteorología (AEMET)	Mr Javier Fernández Villares	Sra. Andrea Grande Royo-Villanova
VI	Türkiye	Turkish State Meteorological Service (TSMS)	Mr Engin Öztürk	Mr Murat Altinyollar

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### **UPDATE ON THE WMO REGIONAL TRAINING CENTRES (RTC)**

RTC Component (separate form for each individual component)				
Hosting Country:				
Name of RTC Component:				
Street Address:				
Tel:				
Email:				
Website:				
Director of RTC Component  (refer to Technical Regulations, Volume I – General Meteorological Standards and Recommended Practices (WMO-No. 49))				
Name of Director of RTC Component:				
Email of Director of RTC Component:				
Focal Point of RTC Component (for communication, if different than the Director)				
Name of RTC Focal Point:				
Email of RTC Focal Point:				
Coordinator of the RTC (for RTCs with multiple components)  (refer to Technical Regulations, Volume I – General Meteorological Standards and Recommended Practices (WMO-No. 49))				
Name of RTC Coordinator:				
Email of RTC Coordinator:				
Permanent Representative  (refer to Technical Regulations, Volume I – General Meteorological Standards and Recommended Practices (WMO-No. 49))				
Date and Signature:				
Name of Permanent Representative:				

#### **EXTRACT FROM**

## TECHNICAL REGULATIONS, VOLUME I – GENERAL METEOROLOGICAL STANDARDS AND RECOMMENDED PRACTICES

(WMO-No. 49, pp. 34-35)

#### 1.5 Meteorological education and training facilities

- 1.5.1 Members should endeavour to provide national facilities, or participate in regional facilities, for the education and training of their personnel.
- 1.5.2 As not all national training facilities are recognized as regional training facilities, the criteria given in Appendix B to this volume apply to each institution designated as being part of a WMO Regional Training Centre (RTC). Each of those institutions is referred to as an RTC component.

#### Regional association

- Prioritize the education and training needs of the regional association and communicate them to the RTCs at least every four years;
- Keep abreast of the activities and plans of each RTC and its components through the annual report they provide;
- Provide RTCs, Members and the Secretary-General with feedback on whether the RTCs are meeting the needs of the regional association;
- Contribute to quadrennial reviews of the RTCs arranged by the Executive Council
  in order to address the extent to which the RTCs are meeting the identified
  education and training needs of the regional association;
- At each session of the regional association, recommend RTCs to the WMO Executive Council for possible confirmation, based on performance against the established criteria;
- Promote the activities and use of the RTCs by members of the regional association;
- Seek funding and resource opportunities to support and expand the work of the RTCs in addressing the education and training needs of the regional association.

#### **Permanent Representative of the host country**

- Inform the Secretary-General and the regional association of the contact details of the Coordinator of an RTC and the Director of an RTC component and of any changes thereto;
- Where the RTC is made up of multiple components, ensure ongoing communication and coordination between the components to maximize education and training opportunities for Members;
- Facilitate coordination between the RTC and the regional association concerned regarding regional education and training needs, funding and resource opportunities;
- Promote the resourcing of the RTC through support from government and other national and international funding bodies;
- Provide the regional association and the Secretary-General with annual reports about the RTC's activities in the previous 12 months and its plans for the next 12 months, with an outlook for future years;

- Collaborate with other Permanent Representatives hosting RTCs to promote collaboration between the RTCs;
- Oversee and act as an advocate for the RTC to (a) comply with national and WMO standards and guidelines and (b) keep pace with evolving technological and educational developments.

#### **Director of an RTC component**

- Monitor and plan the activities of the RTC component in accordance with the expressed education and training needs of the regional association;
- For vocational training activities, use processes within the RTC component that are consistent with ISO 29990:2010, Learning services for non-formal education and training Basic requirements for service providers;
- Monitor the skills and capabilities of the RTC staff, informing the appropriate authorities of the requirements to develop and maintain the professional and training expertise of staff and to ensure the availability and maintenance of an adequate infrastructure for training and for information and communication technology;
- Submit to the Permanent Representative annual reports about the activities of the RTC component in the previous 12 months and plans for the next 12 months, with an outlook for future years;
- Inform Members, through regular communication, of the benefits of the services offered by the RTC component and provide them with easy access to the RTC's Education and Training Programme and contact information;
- Work with other RTC components to (a) coordinate activities and (b) share resources and experience in addressing regional education and training needs;
- Seek additional funding and resource opportunities to expand the ability of the RTC component to address the regional education and training needs.

#### Coordinator of an RTC with multiple components

- Coordinate the overall activities of the RTC components in accordance with the expressed education and training needs of the regional association;
- Coordinate the preparation of annual reports about the RTC's activities in the previous 12 months and plans for the next 12 months, with an outlook for future years, for submission to the Permanent Representative;
- Coordinate arrangements for (a) promoting and providing information about the RTC's services to Members through regular communication, and (b) the sharing of resources and experience among the RTC components in addressing regional education and training needs;
- Ensure that the RTC components collaborate and that each is apprised of the other's education and training activities;
- Support the RTC components in seeking additional funding and resource opportunities to expand the ability of the RTC to address the regional education and training needs.

#### **EXTRACT FROM**

### TECHNICAL REGULATIONS, VOLUME I – GENERAL METEOROLOGICAL STANDARDS AND RECOMMENDED PRACTICES

(WMO-No. 49, pp. 49-50)

# APPENDIX B. CRITERIA FOR THE DESIGNATION OF WMO REGIONAL TRAINING CENTRES

A Regional Training Centre (RTC) is a national education and training institution, or group of institutions, recognized by Congress or the Executive Council (following the recommendation of the relevant WMO regional association(s)) as:

- (a) Providing education and training opportunities for WMO Members in the Region, particularly staff of National Meteorological and Hydrological Services (NMHSs);
- (b) Providing advice and assistance on education and training to WMO Members;
- (c) Promoting education and training opportunities in weather, water, and climate for WMO Members.

These activities are undertaken in accordance with WMO Regulations and guidelines. An institution supported by several Members to provide such services could also be recommended by the relevant regional association as an RTC.

Each institution forming part of an RTC is considered to be an RTC component.

When a Member proposes an institution or a group of institutions to the relevant regional association for recommendation as an RTC, the proposal shall meet the following criteria:

- (a) An RTC or its component is established only to meet the expressed requirements of more than half of the Members of the regional association that cannot be met by existing resources;
- (b) An RTC or its component is designed to meet the requirements of the Region as expressed in a decision of the regional association and recorded in a resolution or statement in the general summary of the abridged final report of the regional association session. However, it is recognized that some RTCs or their components might also take on a broader international remit;
- (c) The RTC is located within the Region concerned, its location decided by the Executive Council in light of the recommendation of the regional association, the advice of the relevant technical commission and the Executive Council Panel of Experts on Education and Training, and the comments of the Secretary-General.

A Member hosting the institution to be designated as an RTC component shall ensure it has the human and financial resources and facilities to satisfy the following:

Identifying learning needs:

The RTC component has processes in place to gain information about the education and training needs of the Region.

#### Designing the learning service:

- The RTC component selects methods of learning that respond to the aims and requirements of the curriculum and learning outcomes and are appropriate for the learners;
- The RTC component ensures that its courses of instruction and other activities, such as delivering or developing e-learning, running off-site activities and providing advice or support, are carried out in a way that is consistent with the standards and guidance material issued by WMO;
- The RTC component provides courses and other resources and activities that address the expressed education and training needs of the Region.

#### Delivering the learning service:

- The RTC component demonstrates that, during the previous four years, it has contributed to meeting the education and training needs identified by the regional association;
- The RTC component delivers training: (a) with competent instructors in terms of their scientific/technical ability and training expertise; and (b) in an environment that is conducive to learning, with adequate learning resources, buildings, information and communication technology systems and training facilities.

#### Assessing learning and evaluating the learning service:

- The RTC component assesses the knowledge and competency of students, documents this information in a fashion suitable for a recognized quality management system, and provides students with a record of the education and training that has been successfully completed;
- The RTC component has processes for measuring the effectiveness and quality of the learning service, including obtaining feedback from stakeholders.

#### Administering and managing the learning service:

- The RTC component has adequate arrangements for administration, governance, planning, staffing, continuous professional development, reporting and self-assessment;
- If the RTC component has no national accreditation as a provider of vocational training, it can demonstrate that it carries out its training activities in accordance with the requirements of ISO 29990:2010;
- The RTC component produces an annual report on activities carried out in the previous 12 months and on its plan for the next 12 months, with an outlook for future years;
- The RTC component: (a) is open to students from all countries in the Region and, subject to the availability of resources, to students from interested countries in other Regions; and (b) has appropriate services in place to support international/regional students.

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