



# WMO and Other Trainer Resources

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Train the Trainer Workshop prior to AMS Collective Madison Meeting  
/ Joint 2022 NOAA Satellite Conference  
6 August 2022      Madison, Wisconsin



# What is the WMO VLab?

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

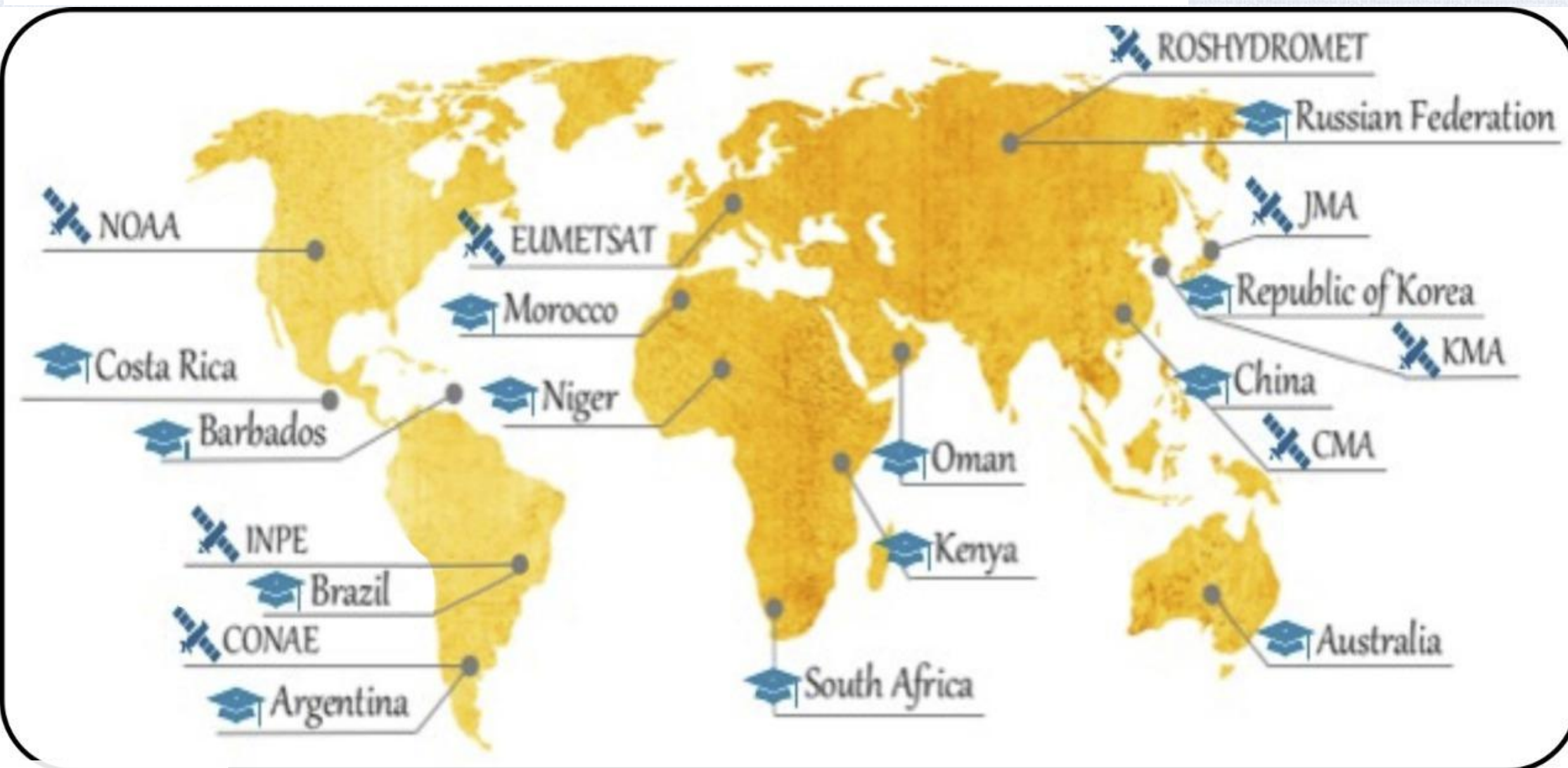
A worldwide collaborative  
network connecting  
13 Training Centres of  
Excellence (CoEs)  
&  
8 Satellite Operators



**VLAB Supporting Satellite  
Operators and Agencies**



**VLab Centres of Excellence**



<http://www.wmo-sat.info/vlab/>





**Associated with the WMO Education and Training Program**

# 43 RTCs

**RUSSIAN FEDERATION-RSHU**  
Russian State Hydrometeorological University

**RUSSIAN FEDERATION-ATI**  
Advanced Training Institute of Roshydromet

**RUSSIAN FEDERATION-MGMTEH**  
Moscow Hydrometeorological Technical School

**TURKEY-TSMS**  
Turkish State Meteorological Service

**IRAN-IRIMO**  
Islamic Republic of Iran Meteorological Organization

**IRAQ-IMO**  
Iraqi Meteorological Organization

**UZBEKISTAN-THMPC**  
Tashkent Hydrometeorological Professional College

**CHINA-CMATC**  
China Meteorological Administration Training Center

**KOREA-KMA**  
Korea Meteorological Administration

**CHINA-NUIST**  
Nanjing University of Information, Science and Technology

**INDIA-IITR**  
Indian Institute of Technology Roorkee

**INDIA-IMDTC**  
India Meteorological Department Training Centre

**PHILIPPINES-UP**  
University of the Philippines

**PHILIPPINES-PAGASA**  
Philippine Atmospheric, Geophysical and Astronomical Services Administration

**INDIA-NWA**  
National Water Academy

**INDIA-IMDMTI**  
India Meteorological Department Meteorological Training Institute

**INDONESIA-RCWR**  
Research Centre for Water Resources

**INDONESIA-BMKG**  
Agency for Meteorology, Climatology and Geophysics

**KENYA-IMTR**  
Institute for Meteorological Training and Research

**KENYA-UON**  
University of Nairobi

**MADAGASCAR-ESPA**  
Ecole Supérieure Polytechnique à Antananarivo

**MADAGASCAR-ENEAM**  
Ecole Nationale d'Enseignement de l'Aéronautique et de la Météorologie

**EGYPT-EMA**  
The Egyptian Meteorological Authority

**QATAR-QAC**  
Qatar Aeronautical College

**ANGOLA-INAMET**  
Instituto Nacional de Meteorologia e Geofisica

**SOUTH AFRICA-SAWS**  
South Africa Weather Service

**NIGERIA-MRTI**  
Meteorological Research and Training Institute

**NIGERIA-FUTA**  
Federal University of Technology, Akure

**NIGER-EAMAC**  
Ecole Africaine de la Météorologie et de l'Aviation Civile

**NIGER-AGRHYMET**  
Centre Régional Agrhymet

**ALGERIA-IHFR**  
Institut Hydrométéorologique de Formation et de Recherches

**SPAIN-AEMET**  
Agencia Estatal de Meteorología

**ISRAEL-PTCAM**  
Postgraduate Training Centre for Applied Meteorology

**ITALY-IBE**  
National Research Council Institute of Bioclimatology

**BARBADOS-CIMH**  
Caribbean Institute for Meteorology and Hydrology

**VENEZUELA-UCV**  
Universidad Central de Venezuela

**COSTA RICA-UCR**  
Universidad de Costa Rica

**PERU-UNALM**  
Universidad Nacional Agraria La Molina

**PERU-SENAMHI**  
Servicio Nacional de Meteorología e Hidrología

**BRAZIL-CVEM**  
Centro Virtual de Ensino e Treinamento em Meteorologia

**ARGENTINA-FICH**  
Facultad de Ingeniería y Ciencias

**ARGENTINA-UBA**  
Universidad de Buenos Aires

**ARGENTINA-SMN**  
Servicio Meteorológico Nacional



# WMO and other Trainer Resources for WMO Members to Use to Ensure Satellite Usage

## Education and Training Programme (ETRP)

<https://community.wmo.int/activity-areas/etrp>



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

Trainer Resources Portal

Compendium of WMO Competency Frameworks

A Compendium of Topics to Support Management Development in National Meteorological and Hydrological Services



<https://www.wmo-sat.info/oscar/>



# Community for the Advancement of Learning in Meteorology and related disciplines (CALMet)

- The CALMet XIV Conference: “Bringing Together the Best of Online to Learning”
- Host: Servicio Meteorológico Nacional, Argentina (VLab CoE) **VIRTUAL!**
- 56 contributors from all Regional Associations of WMO.
- 260 educators, trainers and managers from universities, research institutions, and National Meteorological and Hydrological Service registered for the event.





# Explore Local Resources

## The Institute for Learning and Teaching

<https://tilt.colostate.edu/>

TILT at Colorado State University helps students, faculty, and staff use research-based learning and teaching methods to support academic achievement, equity, and post-graduation success for all CSU students.

### Quick Links for Instructors

[Teaching Resources for All Delivery Modes](#)

[Professional Development](#)

[Best Practices in Teaching Courses](#)

[Teaching Effectiveness Initiative](#)

[Student Testing and Virtual Proctoring](#)

[Best Practices for Promoting Academic Integrity in  
Online Courses](#)



# Template for Exercise



# WMO ETR Trainer Resources Portal

🎓 Trainer Resources  
Portal (English)

📁 **Competency I**

📁 Competency II

📁 Competency III

📁 Competency IV

📁 Competency V

📁 Competency VI

🏠 Home

📅 Calendar

## Trainer Resources Portal (English)

[Home](#) / [Courses](#) / [Trainer Resources Portal \(English\)](#) / [Competency I](#)



### **Trainer Resources Portal**

**Welcome to the Trainer  
Resources Portal!**

This portal has been developed to support the WMO Competency Requirements for Education and Training Providers. The portal contains all resources used in the WMO Online Course for Trainers, plus additional resources when available.

In most cases, the resources are being offered as open educational resources (OER), and can be used and adapted for other initiatives or for training by any institution or individual. Most are offered under Creative Commons License that allows for reuse as long as World Meteorological Organization (or the stated owner) is attributed as the source, and that any adaptations will also be shared freely under the same license.





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## Templates

### Training Development Plan - TDP



Going through each step in the training cycle when designing training provides an opportunity to reflect on how each analysis and decision impacts the others, helping trainers to make well informed decisions from the very start of the training design process. Writing a Training Development Plan helps to keep a record of all the decisions taken during planning. This template is a useful framework also for communicating the goals of a training initiative to stakeholders.

### Training Development Plan - TDP for Coaches



This version of the TDP template includes guidelines for evaluating the quality of a Training Development Plan. It may be useful for instructors teaching a course or supervisors evaluating a plan.