



# The Virtual Laboratory for Education and Training: Updates & Plans

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## 18 Years of VLab Training

Outcomes from  
VLMG-9 2018

VLab Activities  
2018-2019



**(Benefits of) 18 Years of Interactions between  
WMO VLab Members to Ensure  
Satellite Usage Through Training and to  
Promote Capacity Building**

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[https://www.dropbox.com/s/itqj8ahev3uveld/S2-1\\_VLab\\_18Yrs\\_2018\\_V6.pdf?dl=0](https://www.dropbox.com/s/itqj8ahev3uveld/S2-1_VLab_18Yrs_2018_V6.pdf?dl=0)

Mention that Ms Hyesook Park presented about the 18 years of VLab Training, including information about VLab's main audience, the successes, and the challenges and opportunities.

I am not sure the presentations will be made available, so I shared here a link to download the slides from the VLab DropBox. You can delete it in case the presentations are available to download from the conference website.



This is just to highlight the training offered by the VLab Network:

VLab Members using both, online and classroom training, offered a total of 162 training events in 2017. Training was offered in 5 of the WMO official languages (no event was carried out in Arabic) plus Korean and Portuguese. Participants from all WMO Regional Associations took part in training, which reached participants from 183 countries.

Regarding the total number of participants attending VLab training events, the numbers exceeded the 4600 figure. This number excludes the number of participants using the online resources that are accessible via VLab member websites, such as the recorded lectures available from some VLab CoEs and Satellite Operator websites (e.g. Russian Federation, Brazil, Australia, EUMETSAT, JMA, and CIRA). Additionally, whilst great effort was made to report on the number of people trained in 2017, figures were not available for every event organised.

<p>18 Years of VLab Training</p>	
<p>Outcomes from VLMG-9 2018</p>	
<p>VLab Activities 2018-2019</p>	<p>VLMG-9 16 – 20 July 2018</p> <p>Hosted by the Cooperative Institute for Research in the Atmosphere (CIRA) Fort Collins, USA</p>

The recent face-to-face meeting of the VLab management group (VLMG) was hosted by the Cooperative Institute for Research in the Atmosphere (CIRA), in Fort Collins - USA, from 16 to 20 July 2018. The meeting, had a total of 25 participants.

While VLMG-9 encouraged representation from all WMO Regional Associations (WMO RA), about one third ( $\frac{1}{3}$ ) of VLMG Members did not attend this meeting.

Some major outcomes and decisions taken during VLMG-9 are presented in the following slides.

## Quality control of training offered by Centres of Excellence and supporting Satellite Operators

### Self Assessment

Monitoring quality of training based on performance indicators developed by VLMG

### VLab Summary reports

Monitoring performance against key themes of the VLab Strategy



To continuously improve performance and services, VLab decided to continue monitoring quality of training using self-assessments based on performance indicators developed by VLMG in 2012. This format of self-assessment had been used since 2014, and it is performed every two years.

To ensure coherence of VLab activities with the VLab Strategy, VLab members will continue reporting their activities annually, following a template designed to help monitoring performance against key themes of the Strategy, such as user preparedness to new-generation satellites, availability of training resources, and the delivery of training.

A VLab Summary Report will be shared with stakeholders to increase visibility of achievements, challenges and opportunities.

## Planning and pedagogy

### VLab appreciation of the WMO-ETR training of trainers event

This is considered an essential course that VLab recommends to all trainers and training managers working in education and training in meteorology, hydrology and related fields.



coach learning ability  
practice instruction  
Training mentor  
advising education  
development workshop  
skill teaching knowledge  
motivation

WMO Education and Training offers the Online Seminar for trainers every year. VLab has continuously contributed to the seminar with facilitators and coaches from CoEs.

## Planning and pedagogy

VLMG recommends all training organisers to:

1. Design courses following the WMO Guidelines for Trainers in Meteorological, Hydrological and Climate Services (WMO-No. 1114)
2. Link courses to the relevant WMO skills / competencies frameworks (WMO-No1205)



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## Training cooperation

### External training requests

These should be submitted using a training request form to be implemented in the VLab website

### VLab and COSPAR

1. COSPAR to request any assistance they may require for their training activities well in advance
2. VLab to suggest future training interventions that may be implemented with COSPAR support

### VLab and WMO Global Campus

VLab will continue contributing to various WMO Global Campus initiatives



In order to manage training requests arising from outside VLab usual processes to identify training needs, VLab will design and implement a training request form to be available in the VLab website. This should allow users to send requests directly to their selected CoE, using the language the training is requested. A disclaimer will be used in order to clearly inform that making a request does not guarantee the training will be offered by VLab.

The MoU for cooperation between VLab and COSPAR was renewed. It was agreed that COSPAR will request any assistance they may require for their training activities (taking place in 2020) by January 2019. VLab was also invited to suggested future training interventions that may be implemented with COSPAR support.

VLab is an active partner in the WMO Global Campus, and intends to continue contributing to its various initiatives. An example of such partnership is the continuous sharing of information about training events available in the subject of satellites, as all events advertised using the VLab Online Calendar of Events also show in the WMO Learn Events Calendar.





## Satellite Skills and Knowledge for Operational Meteorologists

Describes the underpinning skills  
that support the WMO  
Competencies that relate to the  
use of satellite data by operational  
meteorologists

<https://www.wmo-sat.info/vlab/satellite-skills/>

### VLab decided:

New VLab training resources created from now on, should include identification of the satellite skills and knowledge addressed (up to level 3).

### VLab recommends:

Whenever appropriate, the satellite skills and knowledge addressed in a training event should be identified in the certificate of participation.



VLMG agreed that consulting the guidelines can greatly support the writing of effective learning outcomes for training interventions.

Suggestions were also made to use this document more often when planning the continuous professional development of operational meteorologists.

A poster identifying each of the 7 skills and related performance components, was proposed. It was suggested that this is widely distributed by VLab members and partners, in order to raise awareness of the existence of this important document.

## Implementation of VLab Projects

### RGB Course for trainers

An RGB course for trainers is being designed by a VLab working group. This is taking into consideration the recommendations made in the RGB Experts and Developers Workshop 2017.

### CM4SH

A white paper is in writing to propose the continuation of projects for the creation of more CM4SH.

Conceptual Models for Southern Hemisphere

Conceptual Models - the online collection

Conceptual Models for Southern Hemisphere is a joint project between four southern hemispheric Centres of Excellence: Argentina, Australia, Brazil and South Africa, reinforced by an expert group from Indonesia. The project is co-funded by WMO and EUMETSAT.

The purpose of the project is to improve warnings and awareness of weather risks through the use of conceptual models.

<https://sites.google.com/site/cmsforsh>

An RGB Experts and Developers Workshop 2017 was held at the headquarters of JMA in Tokyo, in November 2017. The discussions produced recommendations for the modification of current RGB recipes and ideas for new RGB recipes in consideration of sulfur dioxide, fire intensity, smoke and other variables.

VLMG Identified a need to raise awareness around the benefits of tuning RGBs. There is also a need to train forecasters to tune RGBs.

The RGB course for trainers (in development by a VLab working group) is taking all these considerations on board.

Conceptual Models for Southern Hemisphere (CM4SH) was a joint project between four southern hemispheric Centres of Excellence: Argentina, Australia, Brazil and South Africa. The second phase of the project also counted with a Team of collaborators from Indonesia.

The project was co-funded by WMO and EUMETSAT.

CoEs reported CM4SH was a very important project for them, and highlighted that the material produced is highly used in training. The need for updates and new conceptual models was identified.

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Two milestones to mention:

- 1) Change in VLab co-chairmanship
- 2) The writing of the VLab Strategy for the next five years (2020-2024)

Plus mentioning where the VLab activities are advertised.

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Handing over VLab  
co-chairmanship

In November 2018, Marinés Campos (SMN – CoE Argentina) will assume the VLab co-chairmanship representing the Centres of Excellence.



#### 1) Change in VLab co-chairmanship

Recall that the VLab Management Group has two co-chairs, one is nominated by CGMS among representatives of sponsoring satellite operators, the other is nominated by VLMG among the representatives of VLab Training Centres of Excellence.

Kathy-Ann Caesar (Caribbean Institute of Meteorology and Hydrology - CoE Barbados), who's long-term contribution to VLab (since 2010) is well known by all partners, is passing the co-chairmanship of VLab to Marinés Campos (Servicio Meteorológico Nacional – CoE Argentina).

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Writing the VLab  
Strategy for the next  
five years

**A** new VLab Strategy document was prepared for the period 2020-2024. The new document should be finalised by VLMG in December 2018.

**D**uring 2019, VLMG shall seek approval of the new VLab Strategy from IPET-SUP and CGMS.

2) The writing of the VLab Strategy for the next five years (2020-2024)

VLMG reviewed the current VLab strategy taking into account new challenges NMHSs will be facing, new sources of data that are available, and the need for greater cooperation in order to enhance the impact of VLab activities. Ideas for the new VLab strategy (2020-2024) were outlined during VLMG-9, and a formal draft of the new VLab strategy was prepared by a working group. The document is in revision and should be approved by VLMG by the end of 2018.

During 2019, VLab shall seek the approval of the new strategy to run from 2020 to 2024.

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Regional and Global  
Activities

Events are advertised in the  
**VLab Online Calendar**

[https://www.wmo-  
sat.info/vlab/](https://www.wmo-sat.info/vlab/)

&

**WMO Learn Events  
Calendar**

[http://learningevents.wmo.i  
nt](http://learningevents.wmo.int)

Mention that training events planned by VLab members are advertised via the VLab Online Calendar. Events are also displayed in the WMO Learn Events Calendar.

The events added by VLab Members as soon as the main information about the event are confirmed (e.g. dates, location, trainers, content)