

## **VLab STATUS AND PLANS**

*(Submitted by Volker Gärtner, VLab Co-Chair)*

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### **Summary and Purpose of Document**

This document reports on activities within the WMO-CGMS Virtual Laboratory for Education and Training in Satellite Meteorology (VLab) along with future plans and directions. Since ET-SUP-7, VLab members have offered a variety of training opportunities; with highlight to the Virtual Round Table on Competence Requirements for Aeronautical Meteorological Personnel, the Science Week 2013, Aviation Week, and the two GEONETCast Event Weeks which were presented in English and Spanish.

Furthermore, the completion of the project "Conceptual Models for the Southern Hemisphere" provided a great insight on what is possible to achieve with a well-coordinated and funded project involving trainers and experts from VLab Centres of Excellence.

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### **ACTION PROPOSED**

The eighth session is invited to note the important achievements of the VLab and to provide comments.

In particular, the session is invited to discuss the proposal by the Russian Federation to nominate a new VLab co-chair, for endorsement.

Appendix A. Letter by PR of Russian Federation to WMO SG proposing a VLab co-chair candidate (31 Jan 2014)

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## VLab STATUS AND PLANS

### 1 INTRODUCTION

This document reports on the activities and plans of the WMO-CGMS Virtual Laboratory (VLab). Since ET-SUP-7 the VLab management group (VLMG) has met three times in virtual meetings (June and October 2013, and March 2014). Two issues of the VLab Newsletter were also published within this period, giving a good overview of the breath of VLab training opportunities. The VLab Newsletter is available online at <http://www.wmo-sat.info/vlab/vlab-newsletter/>. Regarding the most recent activities of VLab (since May 2013), a short review of major achievements and plans is given below.

### 2 MAJOR ACTIVITIES OF THE VIRTUAL LABORATORY SINCE ET-SUP-7

Besides the various regional activities that took place in the VLab Centres of Excellence (CoEs), the major activities conducted by the VLab within the last 8 months can be summarised as follows:

#### 2.1 Virtual Round Table on Competence Requirements for Aeronautical Meteorological Personnel

The Virtual Round Table (VRT) was a series of events that resulted from an action established during the VLMG-6 (2012). Coordination for the VRT on Competence Requirements for Aeronautical Meteorological Personnel started in October 2012, just after the VLMG-6. Kathy-Ann Caesar and Adanna Robertson-Quimby (CIHM, VLab Barbados), in collaboration with the WMO Commission for Aeronautical Meteorology Expert Team on Education, Training and Competences (CAeM ET/ETC) and the International Civil Aviation Organization (ICAO), prepared a set of standard slides for presentation.

With assistance from WMO and the VLab Centres of Excellence (CoEs) in Barbados, Costa Rica, Niger, Brazil and Russian Federation, all the material used in the event (slides, messages, post-event survey and certificates) was translated to Spanish, French, Portuguese and Russian. Presenters for the VRT events in these languages were identified in VLab CoEs. Presentations in English and French had a second session organized as a result of participants request.

All together, the event had 551 participants registered to attend the seven sessions offered. Resources and links to the recorded sessions are available from the VLab central website at <http://www.wmo-sat.info/vlab/virtual-table/>

The success of the event inspired VLab members to take the challenge again and organise a VRT on the topic of climate. Coordination to organise the Climate VRT has already started.

#### 2.2 Science Week 2013

The VLab CoE in Australia hosted the "Science Week" from the 22nd to the 26th July 2013. Nineteen online sessions were presented to a classroom and also open to the online audience. Most of the 29 participants were from Australia, Indonesia, China and New Zealand. Other countries represented within the audience included the Solomon Islands, South Africa, Argentina and Oman.

The content of the presentations consisted of topics relating to the latest developments in meteorological science with respect to operational forecasting. All sessions were recorded and are available in the website of the VLab CoE Australia at <http://www.virtuallab.bom.gov.au/archive/science-week/science-week-presentations>

#### 2.3 Aviation Week

From 11 to 15 November 2013, the VLab CoE in Morocco organised a week of online training sessions dedicated to the topic of aeronautical meteorology. VLab and EUMETSAT supported the organisation of the Event. The need for this event was observed in the results of an online survey conducted by CoE Morocco in 2013. The survey, which investigated training needs, showed aeronautical

meteorology as one of the highest priorities for urgent training in WMO RA I.

This training event comprised 9 sessions and covered three aspects of aeronautical meteorological activities: i) organizational and regulatory aspects, ii) operational aspect and iii) development and modelling aspect. All sessions were recorded and are available at <http://training.eumetsat.int/course/view.php?id=213>

Experts from VLab CoEs Morocco, Barbados and Australia provided the training in this event, to the benefit of more than 65 meteorologists and scientists from 14 countries, such as Algeria, Australia, Barbados, Brazil, Canada, Cape Verde, Costa Rica, Mauritania, Morocco, Niger, Philippines, Senegal and Switzerland.

## 2.4 GEONETCast Event Weeks

As a follow-up to the WMO NOAA Train the Trainer Workshop on GEONETCast in April 2013 and in response to WMO users' survey, CIRA, NOAA, WMO, and the VLab Centers of Excellence in Costa Rica, Barbados, Brazil, and Argentina hosted a virtual training on GEONETCast. The training consisted of 3 sessions on the 3rd, 4th, and 5<sup>th</sup> of December 2013. As WMO RA III and IV have a large percentage of Spanish speaking countries, the sessions were presented in both languages English and Spanish (for a total of 6 sessions).

The goals of the training were: to make countries more aware of what is available; to expand the use of GEONETCast-Americas; and to start thinking about GOES-R. The topics included an introduction to the capabilities of GEONETCast, disaster mitigation products, and software to view products. The sessions drew a lot of interest as people from 29 countries participated. There were 111 individuals, which included speakers, organizers, and participants.

All sessions were recorded and can be accessed at

[http://rammb.cira.colostate.edu/training/rmtc/geonetcast\\_event\\_en.asp](http://rammb.cira.colostate.edu/training/rmtc/geonetcast_event_en.asp) - for English

[http://rammb.cira.colostate.edu/training/rmtc/geonetcast\\_event\\_sp.asp](http://rammb.cira.colostate.edu/training/rmtc/geonetcast_event_sp.asp) - for Spanish

## 2.5 Conceptual Models for the Southern Hemisphere Project

Conceptual Models for Southern Hemisphere (CM4SH) was a joint project between four southern hemispheric VLab Centres of Excellence: Argentina, Australia, Brazil and South Africa. The project was co-funded by WMO and EUMETSAT and has just concluded its activities.

It is foreseen that products of this project will help to increase the operational forecasters' understanding of the weather systems. Additionally, it is noticed that the full potential use of these resources for training can only be achieved if the resources are available in the native language of the users. It is recommended that the products of this project are then translated to Spanish and Portuguese.

Participants in the project were very positive about the outcomes and commented that the CM4SH connected different areas of the meteorological services, such as research and development, training, forecast, data processing and systems. The project was deemed successful and inspirational.

CM4SH was under the coordination of Vesa Nietosvaara (EUMETSAT) with support from Veronika Zwatz-Meise. The progress of the work can be seen in a dedicated page in the VLab central website at <http://www.wmo-sat.info/vlab/conceptual-models-southern-hemisphere/>

## 3 COORDINATION WITH PARTNER PROGRAMMES:

### 3.1 World Wide Weather Briefing

From 20th to 24th May 2013, EUMeTrain organised an event week called "World Wide Weather Briefing". This event comprised nine sessions of weather analysis from different parts of the world, all focusing on challenges that forecasters have to face around the globe.

VLab fully supported the organising of this event with presenters from Centres of Excellence in

Australia, Brazil, Oman, South Africa and Republic of Korea. The weather briefing from North America was also presented by a member of the VLab community, Dan Bikos (NOAA International Desk), who runs the Americas and Caribbean Regional Focus Group on a monthly basis in collaboration with CIRA.

### **3.2 WMO Train the Trainer Online Seminar for WMO RA I**

WMO Education and Training is offering a Train the Trainer Online Seminar for trainers from WMO RA I in 2014. The seminar, which started in March and is taking place during 10 weeks, has participants from all VLab CoEs in RA I (South Africa, Kenya, Niger and Morocco) and also from CoE Oman.

VLab is collaborating in this event with course facilitators from CoEs Niger, Kenya and Morocco, and also from EUMETSAT and VLab office (TSO).

## **4 FUTURE ACTIVITIES PLANNED:**

### **4.1 Satellite Direct Readout**

In 2013 VLab started organising a series of online events about the direct readout capabilities of polar orbiting systems. The idea is that each satellite operator that operates polar orbiting systems with a direct readout capability could present two online sessions in consecutive days to present: (1) the main scientific aspects of the satellite instruments and (2) the direct readout system and particularly the local processing software.

EUMETSAT started this series of events by presenting two sessions about the EPS/Metop on May 2013. Sessions' topics were as follows:

- 1) EPS/Metop – instrument, products and service, presented by Dieter Klaes – EUMETSAT, Germany;
- 2) EPS Direct Readout and Processing Tools, presented by Nigel Atkinson – MetOffice, United Kingdom.

Resources and links to these recorded sessions are available in the VLab central website at <http://www.wmo-sat.info/vlab/satellite-direct-readout/>

The next couple of sessions will be about the Suomi NPP. These sessions will take place on the 8<sup>th</sup> and 9<sup>th</sup> of April 2014 as follows:

- 1) Suomi NPP - to be presented on the 8<sup>th</sup> of April by Mitch Goldberg (NOAA);
- 2) CSPP software supporting Suomi NPP – to be presented on the 9<sup>th</sup> of April by Liam Gumley (University of Wisconsin, Madison, USA).

Additionally, the Seventh Session of the Expert Team on Satellite Utilization and Products (ET-SUP-7, 27-30 May 2013) proposed an action to VLab CoE China in conjunction with CMA, to arrange an online lecture on the FY3 product suite for the benefit of all Regions (Action ET-SUP 7.19). Similar action was also proposed to VLab CoE Russian Federation, to arrange an online lecture on the Meteor-M product suite (Action ET-SUP 7.20). Coordination for the presentation of these sessions should soon start with the above mentioned CoEs.

### **4.2 Cooperation with COSPAR**

Giving continuation to the collaboration started in 2012 (on the occasion of the COSPAR Training and Capacity Building Workshop in Beijing, China, September 2012) VLab is supporting the “Joint COSPAR and WMO Capacity Building Workshop on Satellite remote sensing, water cycle and climates change” by offering a set of training sessions organised by trainers from EUMETSAT and CoE Russian Federation.

This event will take place over two weeks, from 20 July to 1 August 2014, at Tver State University, Tver, Russian Federation.

### **4.3 VLMG-7 Meeting in 2014**

The next face-to-face meeting of the VLab management group (VLMG-7) will take place in the Russian Federation, from 22 to 25 July 2014. ROSHYDROMET is supporting the event and the Russian State Hydrometeorological University (RSHU) will be hosting the meeting in its main campus, in Saint Petersburg.

The VLMG-7 meeting will offer a critical opportunity for all VLab partners to assess achievements, exchange experiences, address challenges, and take decisions that will shape the VLab 's future. VLab CoEs and supporting Satellite Operators and Agencies are working on reports and self-assessments that will be discussed in the meeting, as VLab partners are aiming to identify the strengths and weaknesses of VLab training in order to further enhance achievements.

## **5 CHANGE IN VLAB CO-CHAIRMANSHIP**

Volker Gärtner, who has been co-chairing the VLab together with Kathy-Ann Caesar(CIMH), announced his intention to step down from this function in 2014. In a letter to WMO (Appendix A), ROSHYDROMET propose as new co-chair Prof. Grigory Chichasov, Director of the WMO Regional Training Centre in the Russian Federation, and Mr Eduard Podgaiskiy from the Russian State Hydrometeorological University as his assistant. Prof. Chichasov and Mr Podgaiskiy are the nominated main points of contact for the VLab Centre of Excellence in the Russian Federation, and hosts of the upcoming 7<sup>th</sup> meeting of the VLab Management Group.

The session is invited to discuss the proposal by the Russian Federation to nominate a new VLab co-chair, for endorsement.

## **6 CONCLUSION**

This document reports on the status of the WMO-CGMS VLab and presents some upcoming activities.

Two major challenges identified within the VLab during the period of this report are:

- 1) To ensure the funding of the VLab Technical Support Officer, in order to keep supporting VLab Centres of Excellence and the effort to enhance cooperation amongst all the VLab partners;
- 2) To keep CoEs meeting the agreed expectations, whilst the number of personnel available in their Centres is often below the limits necessary to keep the level of training activities required in their respective area of responsibility.

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Appendix A

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МИНИСТЕРСТВО ПРИРОДНЫХ РЕСУРСОВ  
И ЭКОЛОГИИ РОССИЙСКОЙ ФЕДЕРАЦИИ



MINISTRY OF NATURAL RESOURCES  
OF THE RUSSIAN FEDERATION

ФЕДЕРАЛЬНАЯ СЛУЖБА  
ПО ГИДРОМЕТЕОРОЛОГИИ  
И МОНИТОРИНГУ ОКРУЖАЮЩЕЙ  
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Facsimile

№

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Женева, Швейцария

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Уважаемый д-р Жарро,

Ссылаясь на письмо директора Космической программы ВМО г-на С. Божински, предлагаю рассмотреть кандидатуры исполнительного директора РУЦ ВМО в РФ, ректора ИПК Росгидромета проф. Г. Чичасова для назначения в качестве сопредседателя Группы управления виртуальными лабораториями, а также г-на Э. Подгайского из Российского государственного гидрометеорологического университета в качестве его помощника.

С уважением,

А.В. Фролов  
Руководитель Росгидромета,  
Постоянный представитель  
Российской Федерации при ВМО

WMO REGISTRY (4)	-3
19711-14	OBS/SAT
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SI6	SI7

Summary translation from Russian

RGA\_14170\_en

**To:** Dr. M. Jarraud  
Secretary-General of the WMO

**From:** Mr. A. Frolov  
Head of Roshydromet  
Permanent Representative of the Russian Federation with WMO

**Ref.:** 80-90-11/24 M  
31.01.2014

With reference to the letter of Mr. S. Bojinski, Director of the WMO Space Programme, Dr. Frolov suggests the candidature of Prof. G.Chichasov, Executive Director of the WMO RTC in the Russian Federation, for the position of a Co-Chair of the Virtual Lab Management Group, and the candidature of Mr. E. Podgayskiy, the Russian State Hydrometeorological University, for the position of his assistant.