

#3

COMPLETE

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Page 1: About the Organisation

Q1 Please select your Organisation from the list below. **European Organisation for the Exploitation of Meteorological Satellites - EUMETSAT**

Q2 Please select from the list below the Centre(s) of Excellence (CoEs) you directly support. **Kenya, Morocco, Niger, Oman, South Africa**

Q3 Does the Organisation have a webpage dedicated to explain its involvement and support to VLab? **Yes**

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Q4 Please provide the URL to access the webpage

<https://www.eumetsat.int/website/home/Data/Training/index.html>

Q5 What is the profile of the people supporting training activities in your Organisation? **Training Manager, Full time trainer, Part time trainer, Administrative staff**

Q6 Please use the space below to provide any additional comments regarding Question 5. Comments could include number of staff, proportion of support received from different organisations and training programmes, or anything else regarding the support to plan and offer training, as well as offering support to the VLab CoEs. **Respondent skipped this question**

Q7 Are regular opportunities offered to trainers in your Organisation, to further develop their skills on "planning, designing and facilitating training"? **No**

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Q8 Please comment on the sort of training provided to trainers and the frequency. **Respondent skipped this question**

Q9 Please comment if there is a need for this sort of training (training of trainers) in the Organisation and if so, what are the difficulties to provide it.

We use the Met Office training of trainers

Q10 Does the Organisation have representation in a regional Coordination Group for Satellite Data Requirements (SDR)? **Yes**

Q11 What were the major achievements of the Organisation in providing training and also when supporting VLab CoEs on their activities during this reporting period?

Courses supported in all 5 training centres - including in Marine forecasting and Climate. Also supporting people to attend Clamet and the support of the ASMET project

Q12 What were the main difficulties of your Organisation to provide training and to support VLab CoEs on their activities during this reporting period?

Limited capacity to cover all the needs

Q13 Please, provide a statement describing a situation where an activity organised by your Organisation resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

The launch of the asmet.farica site to provide information on resources and courses for the Africa region

Page 4: About Training

Q14 How does your Organisation investigate its regional training needs?

We rely on the regional assessment from the COE and Eumetcal

Q15 What is the main audience addressed by the training you provide? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

Trainers, developers of products and operational staff

Q16 Is any kind of Learning Management System used by your Organisation to conduct training activities? **Moodle**

Q17 Is any kind of Online Conferencing System used by your Organisation to conduct training activities? **Cisco Webex**

Q18 Are the training events organised by the Organisation advertised in the online Training Calendar used by VLab? **Yes**

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Q19 Please use this space to provide comments on the reasons the Organisation does not advertise training events in the VLab online calendar. **Respondent skipped this question**

Q20 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

I wish I could improve it faster!

Q21 Would your Organisation be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes? **Yes**

Page 6

Q22 Please indicate what training resources you would like to request permission to reuse.

NOAA GOER-R resources - have asked and is ok

Q23 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

We will be running big data training from late 2020, we have supported cloud training events already as part of Copernicus. We already run climate courses and are looking at how effective our approach is

Page 7: About VLab collaboration

Q24 Is this Organisation working closely together with the sponsored CoE(s) in VLab training activities? **Yes**

Q25 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

We have a good cooperation with the COEs

Q26 Do you maintain regular contact with the other VLab Supporting Satellite Operators/Agencies to discuss data access and format issues as well as training needs to improve the use of satellite data and products? **Yes**

Q27 Please comment on the answer above and, if applicable, suggest ways to improve collaboration

NOAA, CMA, JMA and Plaenta especially

Q28 What sort of support would you like to receive from other VLab Supporting Satellite Operators/Agencies, CoEs, WMO Space Programme, VLab Co-chairs and TSO?

Focus on teh needs of operational meteorology - WMO space programme

Q29 What sort of support could you offer to other VLab Supporting Satellite Operators/Agencies, CoEs and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

sharing what we have learned

Page 8: Training Resources and Training Events

Q30 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your Organisation in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the Organisation in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

NOTE: All reporting tables submitted were combined. These are available in one unique spreadsheet named [Summary_Activities_2019](#). The file is available to download from <https://www.wmo-sat.info/vlab/coe-reports/>

#6

COMPLETE

Collector: Web Link SatOps 2019 (Web Link)
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Last Modified: Wednesday, December 25, 2019 1:36:38 AM
Time Spent: 00:11:51
IP Address: 23.56.108.93

Page 1: About the Organisation

Q1 Please select your Organisation from the list below. **Japan Meteorological Agency - JMA**

Q2 Please select from the list below the Centre(s) of Excellence (CoEs) you directly support. **Australia**

Q3 Does the Organisation have a webpage dedicated to explain its involvement and support to VLab? **Yes**

Page 2

Q4 Please provide the URL to access the webpage

<http://www.data.jma.go.jp/mscweb/en/VRL/index.html> (This page is under the process of revision.)

Q5 What is the profile of the people supporting training activities in your Organisation? **Forecaster,**
 Other (please specify):
 Satellite product developer

Q6 Please use the space below to provide any additional comments regarding Question 5. Comments could include number of staff, proportion of support received from different organisations and training programmes, or anything else regarding the support to plan and offer training, as well as offering support to the VLab CoEs. **Respondent skipped this question**

Q7 Are regular opportunities offered to trainers in your Organisation, to further develop their skills on "planning, designing and facilitating training"? **No**

Page 3

Q8 Please comment on the sort of training provided to trainers and the frequency. **Respondent skipped this question**

Q9 Please comment if there is a need for this sort of training (training of trainers) in the Organisation and if so, what are the difficulties to provide it.

Lack of human training expertise

Q10 Does the Organisation have representation in a regional Coordination Group for Satellite Data Requirements (SDR)?

I am not aware of SDR Groups in the region. Please send me information.

Q11 What were the major achievements of the Organisation in providing training and also when supporting VLab CoEs on their activities during this reporting period?

JMA, KMA and BoM conducted the 2018 RII/RV user survey. JMA has been operating Himawari-8/9 without major trouble and providing satellite imagery to CoEs stably. Besides that, JMA experts sometimes check and review the contents of RFG meeting in advance.

Q12 What were the main difficulties of your Organisation to provide training and to support VLab CoEs on their activities during this reporting period?

None

Q13 Please, provide a statement describing a situation where an activity organised by your Organisation resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

JMA continued to operate HimawariRequest to provide National Meteorological and Hydrological Services (NMHSs) in WMO RA II and RA V with Himawari-8/9 on-demand TA-observation earth images taken every 2.5 minutes over an area of approximately 1,000 x 1,000 km within the Himawari observation domain.

Page 4: About Training

Q14 How does your Organisation investigate its regional training needs?

RA II/RA V survey, AOMSUC training event questionnaire, bilateral communication with the NMHSs

Q15 What is the main audience addressed by the training you provide? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

forecasters and meteorologists

Q16 Is any kind of Learning Management System used by your Organisation to conduct training activities?

Learning Management System is not used

Q17 Is any kind of Online Conferencing System used by your Organisation to conduct training activities?

Cisco Webex

Q18 Are the training events organised by the Organisation advertised in the online Training Calendar used by VLab? **No**

Page 5

Q19 Please use this space to provide comments on the reasons the Organisation does not advertise training events in the VLab online calendar.

JMA don't make training events which seem to be appropriate to advertise in the online Training Calendar.

Q20 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

If we have appropriate events, we want to use the calendar

Q21 Would your Organisation be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes? **Yes**

Page 6

Q22 Please indicate what training resources you would like to request permission to reuse.

Textbook, Video, PPT slides, Recorded lecture

Q23 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

Big Data approach is under consideration for many countries including JMA. Training for climate services should be in coordination with existing WMO frameworks (e.g. RCCs). JMA cannot provide training for Space Weather, because it is out of JMA missions (thus inter-agency collaboration will be required).

Page 7: About VLab collaboration

Q24 Is this Organisation working closely together with the sponsored CoE(s) in VLab training activities? **Yes**

Q25 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

In cooperation with the CoE, we conducted the RA I/IV survey, which includes survey on training requirements.

Q26 Do you maintain regular contact with the other VLab Supporting Satellite Operators/Agencies to discuss data access and format issues as well as training needs to improve the use of satellite data and products? **Yes**

Q27 Please comment on the answer above and, if applicable, suggest ways to improve collaboration

JMA contacts with the other satellite operators through CGMS frameworks.

Q28 What sort of support would you like to receive from other VLab Supporting Satellite Operators/Agencies, CoEs, WMO Space Programme, VLab Co-chairs and TSO?

Sharing the training material.

Q29 What sort of support could you offer to other VLab Supporting Satellite Operators/Agencies, CoEs and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

Providing the presentations in the RFG meeting

Page 8: Training Resources and Training Events

Q30 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your Organisation in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the Organisation in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

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#9

COMPLETE

Collector: Web Link SatOps 2019 (Web Link)
Started: Saturday, January 18, 2020 8:02:44 PM
Last Modified: Saturday, January 18, 2020 8:24:13 PM
Time Spent: 00:21:29
IP Address: 23.52.0.47

Page 1: About the Organisation

Q1 Please select your Organisation from the list below. **United States National Oceanic and Atmospheric Administration's Environmental Satellite Data and Information Service - NOAA/NESDIS**

Q2 Please select from the list below the Centre(s) of Excellence (CoEs) you directly support. **Argentina, Barbados, Brazil, Costa Rica**

Q3 Does the Organisation have a webpage dedicated to explain its involvement and support to VLab? **Yes**

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Q4 Please provide the URL to access the webpage

<http://rammb.cira.colostate.edu/training/rmtc/>

Q5 What is the profile of the people supporting training activities in your Organisation? **Training Manager, Full time trainer, Part time trainer, Researcher, Administrative staff, Other (please specify): Instructional designers, graphic artists, programmer, translator, IT staff. This is combined CIRA and COMET.**

Q6 Please use the space below to provide any additional comments regarding Question 5. Comments could include number of staff, proportion of support received from different organisations and training programmes, or anything else regarding the support to plan and offer training, as well as offering support to the VLab CoEs.

The support highlights types of people for both National and International Training efforts that overlap. COMET has a training manager, ~4 staff scientists, ~3 instructional designers, 1 graphic artist, 1 programmer, 1 translator, and miscellaneous support from administrative and IT staff. CIRA has 6 designated training staff that have multiple responsibilities equating to: 1 part-time training manager, 2 full time trainers, 3 part time trainers, 3 part time scientists and 1 part time translator. They are able to draw on other CIRA scientists to gather background materials and provide reviewing of materials. CIRA trainers can also utilize shared CIRA resources for administrative, programming and IT support.

Q7 Are regular opportunities offered to trainers in your Organisation, to further develop their skills on "planning, designing and facilitating training"? **Yes**

Page 3

Q8 Please comment on the sort of training provided to trainers and the frequency.

During the past year, one CIRA staff took the online WMO Course for Trainers and another CIRA staff participated as a facilitator/coach. Both CIRA staff found the experience enriching: one as a first time exposure and the other as a refreshing review. Two CIRA trainers and the WMO TSO also helped develop, deliver and participate in a 1.5 day WMO Train the Trainer Workshop in Boston, USA. All our CoEs were able to participate in this event. One CIRA staff kept abreast of current educational/ continuing professional development trends through review of literature. In previous years, certain staff have taken facilitator instruction and participated in CALMET both as learner and presenter. COMET staff keep abreast of current trends in effective learning design and delivery and pass this information along to the international community. Tsvet Ross-Lazarov participated in the WMO/Eumetcal Online Course for Trainers on Blended Learning as a Facilitator/Coach. Tsvet Ross-Lazarov and Bryan Guarente were instructors/trainers for plenary sessions at CALMet in Sep 2020.

Q9 Please comment if there is a need for this sort of training (training of trainers) in the Organisation and if so, what are the difficulties to provide it.

There are many opportunities for training of trainers across the many organizations that participate in NOAA supported training. Now that we're through the initial deployment of the new GOES-R series and JPSS series and associated first level training for forecasters, it would be great to be able to focus on broader training aspects. For example, these could include levels of users and types of training resources best suited for them, the encouragement and use of mentors, the concepts of continuing professional development. These would apply to both National and International audiences. The main challenge is determining priorities and continuing to secure funding from sponsors. The second challenge is trainers themselves value or are aware of the pedagogy, design concepts, social impacts and are willing to explore and incorporate these aspects.



Q10 Does the Organisation have representation in a regional Coordination Group for Satellite Data Requirements (SDR)? **Yes**

Q11 What were the major achievements of the Organisation in providing training and also when supporting VLab CoEs on their activities during this reporting period?

The NOAA/NCEP/WPC International Tropical and South America Desks trained 15 visitors. The visitors spent 4 months at the desk and came from Argentina, Bahamas, Bolivia, Brazil, Chile (2), Colombia (2), Costa Rica, Dominican Republic, El Salvador, Panama, Paraguay, and Peru (2). The Regional Focus Group of the Americas and Caribbean conducted 12 virtual bilingual (English/Spanish) weather and climate briefings. Thirty-one countries outside the US participated: Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Canada, Cayman Islands, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Italy, Jamaica, México, Morocco, Netherland Antilles, Panamá, Paraguay, Peru, St. Kitts & Nevis, Spain, Trinidad & Tobago, Switzerland, Ukraine, Venezuela. The number of countries participating each month ranged between 9 and 18 (median 13); and the number of participants each month ranged between 24 and 69 (median 43). In 2019, the number of English-language satellite resources on COMET's MetEd website grew by 9 to now include over 100 freely accessible training materials related to both geostationary and polar-orbiting satellites. The number of translated resources providing forecasters with training in their own languages also grew: 5 translated to Portuguese, 7 translated/updated to Spanish, and 1 translated to French. An online Translation Resource Center provides the community with a guide to translation project management, and is available in English, Spanish, and French. NOAA and its collaborating organizations provided experts for various workshops associated with data dissemination and training on imagery and products from existing and new Geostationary and Low Earth Orbiting satellites: the Canadian Meteorological and Oceanographic Society Congress (CMOS); the NOAA-NASA SatMet Summer Workshop at CIRA, Colorado, USA; the RA-IV Satellite Workshop at CIMH in Barbados, AmeriGEO Satellite Workshop at SENAMHI in Lima, Peru; the NOAA/WMO VLab Train the Trainer event in Boston, USA; GOES-16 workshops for the Weather Services of Paraguay and Uruguay; and a Workshop for RELAMPAGO/SMN in Argentina.

Q12 What were the main difficulties of your Organisation to provide training and to support VLab CoEs on their activities during this reporting period?

Not enough time in the year! Upon reflection, we had a great year of interactions and training activities for both the operational user and the trainers. If more funding were available, we could have provided more support for travel for participants to attend the Train the Trainer event and the Joint Satellite Conference that followed it and also CALMET.

Q13 Please, provide a statement describing a situation where an activity organised by your Organisation resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

The monthly weather and climate Regional Focus Groups sessions encouraged continued informal learning, promote the new data types and products from the new GOES and JPSS satellites. Collaborations with CoE Argentina allowed for introduction of the RFG sessions to participants in their courses as well as presentations from the courses to the RFG community. Collaborations with CoEs Costa Rica and Brazil supported linkages in data access associated with the new satellites and in support of the WMO SDR goals and objectives and also GEO via AmeriGEO. Collaborations with the CoE Barbados resulted in a Satellite Workshop. Collaboration with all the 4 CoEs and EUMETSAT supported cross-Regional Satellite User Conferences. All these activities benefit our sponsoring agent (CGMS).

Page 4: About Training

Q14 How does your Organisation investigate its regional training needs?

Within the US, training needs are investigated through the NOAA NWS Office of the Chief Learning Officer. Internationally, it has been done on a regular basis in response to input from the WMO Coordination Group on Satellite Data Requirements, the NOAA GNC-A user group, through the bi-annual NOAA Satellite Conference, and in response to direct requests to the NOAA GOESR series program and the JPSS program.

Q15 What is the main audience addressed by the training you provide? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

. The main audience depends on the training medium and group. As this report shows, we engage in developing modules, have regular online informal continuing education through the RFG sessions, and have in person training/workshops. The audiences are varied and primarily include forecasters, university students, meteorologists, hydrologists, researchers, lecturers, and weather enthusiasts.

Q16 Is any kind of Learning Management System used by your Organisation to conduct training activities?

Other (please specify):

Commerce Learn Center LMS is used by NOAA. CIRA tracks user activity of RFG participation, user initiated module registration, and browser metrics. COMET tracks user activity through their MetEd site.

Q17 Is any kind of Online Conferencing System used by your Organisation to conduct training activities?

GoTo (Webinar, Meeting)

Q18 Are the training events organised by the Organisation advertised in the online Training Calendar used by VLab?

Yes

Page 5

Q19 Please use this space to provide comments on the reasons the Organisation does not advertise training events in the VLab online calendar.

Respondent skipped this question

Q20 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

The RFG sessions are advertised. Not all the other workshops have been advertised. . We need to revisit how does this calendar link to the WMO ETR Global Campus calendar (if there is such a calendar) and how we can best link to our own sites.

Q21 Would your Organisation be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes?

Yes

Page 6

Q22 Please indicate what training resources you would like to request permission to reuse.

We already adapt and reuse materials to some extent, particularly for RGB training. One question that often comes up – who are the best contacts to get background information? Otherwise, we are interested in anything applicable to user needs. We are always on the lookout for more information on low cost or freely available tools for satellite image and product viewing and manipulation and the generation of more complicated RGB products that can be implemented relatively easily.

Q23 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

We have not really addressed big data, climate, and space weather yet. We do have resources on these aspects across the US, the main challenge is sorting through and pulling out what is most relevant to our users. This other challenge is limited staff/funding to do this.

Page 7: About VLab collaboration

Q24 Is this Organisation working closely together with the sponsored CoE(s) in VLab training activities? **Yes**

Q25 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

As mentioned in response to previous questions 11 and 13, this was a very good year for interactions, collaborations, and training with our sponsored CoEs. As we reflect on activities, we see opportunities to establish and make discoverable networks with activities in common.

Q26 Do you maintain regular contact with the other VLab Supporting Satellite Operators/Agencies to discuss data access and format issues as well as training needs to improve the use of satellite data and products? **Yes**

Q27 Please comment on the answer above and, if applicable, suggest ways to improve collaboration

One of the ways this was accomplished during the past year was through the Joint Satellite Conference. This is also done by various groups around the US as well as through various WMO working groups. Better coordination and networking among the various groups would likely benefit all.

Q28 What sort of support would you like to receive from other VLab Supporting Satellite Operators/Agencies, CoEs, WMO Space Programme, VLab Co-chairs and TSO?

How can we better identify and address training for different levels of expertise in aspects of both trainer and operational user? How can we better incorporate education pedagogy to make training "stick"? How can we better communicate these needs to management? Our work is interconnected with across many disciplines (meteorology, hydrology, education, training, social science, decision support, research, operations, IT, data access and display, etc.) - How can we better network these?

Q29 What sort of support could you offer to other VLab Supporting Satellite Operators/Agencies, CoEs and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

Experience is a great teacher. We can share our insights on RFG sessions, hands on activities, virtual activities, culture, insights on human aspects of image interpretation, data access and display (SDR activities), and others.

Page 8: Training Resources and Training Events

Q30 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your Organisation in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the Organisation in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

NOTE: All reporting tables submitted were combined. These are available in one unique spreadsheet named Summary_Activities_2019. The file is available to download from <https://www.wmo-sat.info/vlab/coe-reports/>)

#8

COMPLETE

Collector: Web Link SatOps 2019 (Web Link)
Started: Sunday, January 05, 2020 12:38:07 PM
Last Modified: Sunday, January 05, 2020 1:57:02 PM
Time Spent: 01:18:54
IP Address: 2.21.240.35

Page 1: About the Organisation

Q1 Please select your Organisation from the list below. **Russian Federal Service for Hydrometeorology and Environmental Monitoring - ROSHYDROMET**

Q2 Please select from the list below the Centre(s) of Excellence (CoEs) you directly support. **Russian Federation**

Q3 Does the Organisation have a webpage dedicated to explain its involvement and support to VLab? **Yes**

Page 2

Q4 Please provide the URL to access the webpage

<http://meteovlab.meteorf.ru/>

Q5 What is the profile of the people supporting training activities in your Organisation? **Researcher, Administrative staff**

Q6 Please use the space below to provide any additional comments regarding Question 5. Comments could include number of staff, proportion of support received from different organisations and training programmes, or anything else regarding the support to plan and offer training, as well as offering support to the VLab CoEs. **Respondent skipped this question**

Q7 Are regular opportunities offered to trainers in your Organisation, to further develop their skills on "planning, designing and facilitating training"? **No**

Page 3

Q8 Please comment on the sort of training provided to trainers and the frequency. **Respondent skipped this question**

Q9 Please comment if there is a need for this sort of training (training of trainers) in the Organisation and if so, what are the difficulties to provide it.

Various kind of trainings are always welcome in order to ensure to be in accordance with the contemporary tendencies. As for difficulties, staff involved in VLab activities in the organization are multi-tasking, so there are some time limitations.

Q10 Does the Organisation have representation in a regional Coordination Group for Satellite Data Requirements (SDR)?

I am not aware of SDR Groups in the region. Please send me information.

Q11 What were the major achievements of the Organisation in providing training and also when supporting VLab CoEs on their activities during this reporting period?

Training event on satellite monitoring and nowcasting of high impact weather events for National Hydrometeorological Services of CIS countries (SRC Planeta, ATI, 4 – 7 June 2019)

Q12 What were the main difficulties of your Organisation to provide training and to support VLab CoEs on their activities during this reporting period?

The lack of people who would be focused on the VLab activity only.

Q13 Please, provide a statement describing a situation where an activity organised by your Organisation resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

The training event in June 2019 was an example of active engagement with other international entities providing training (EUMETSAT) as it is stated at the Strategy.

Page 4: About Training

Q14 How does your Organisation investigate its regional training needs?

Collecting training event feedback from participants

Q15 What is the main audience addressed by the training you provide? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

forecasters (primary audience) as well as meteorologists

Q16 Is any kind of Learning Management System used by your Organisation to conduce training activities?

Learning Management System is not used

Q17 Is any kind of Online Conferencing System used by your Organisation to conduce training activities?

Online Conferencing System is not used

Q18 Are the training events organised by the Organisation advertised in the online Training Calendar used by VLab?

No

Page 5

Q19 Please use this space to provide comments on the reasons the Organisation does not advertise training events in the VLab online calendar.

Actually there is only one major training event arranged by our organization (once per two years). And it is usually overcrowded... So we can't afford invite someone apart from Roshydromet and its subordinate institutions.

Q20 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

But I suppose that we will advertise it next time (it is planned for 2021) with indication of target (Roshydromet) audience.

Q21 Would your Organisation be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes? **Yes**

Page 6

Q22 Please indicate what training resources you would like to request permission to reuse.

Any training resources would be welcome to be adapted to our internal needs.

Q23 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

Actually, Climate and Space Weather are not the fields which our organization is focused on (there are other organization in Roshydromet specializes in these areas).

Page 7: About VLab collaboration

Q24 Is this Organisation working closely together with the sponsored CoE(s) in VLab training activities? **Yes**

Q25 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

It could be more efficient if there are dedicated people focused only on VLab activity in our organization, as well as at CoE.

Q26 Do you maintain regular contact with the other VLab Supporting Satellite Operators/Agencies to discuss data access and format issues as well as training needs to improve the use of satellite data and products? **Yes**

Q27 Please comment on the answer above and, if applicable, suggest ways to improve collaboration

Currently there is only EUMETSAT, but we are eager to communicate closely with JMA, CMA and others.

Q28 What sort of support would you like to receive from other VLab Supporting Satellite Operators/Agencies, CoEs, WMO Space Programme, VLab Co-chairs and TSO?

Lecturers presented various topics related to operational satellites and its applications implemented by different satellite operators.

Q29 What sort of support could you offer to other VLab Supporting Satellite Operators/Agencies, CoEs and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

Probably we are able to co-host some international events related to VLab activity.

Page 8: Training Resources and Training Events

Q30 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your Organisation in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the Organisation in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

NOTE: All reporting tables submitted were combined. These are available in one unique spreadsheet named [Summary_Activities_2019](#). The file is available to download from <https://www.wmo-sat.info/vlab/coe-reports/>

#15

COMPLETE

Collector: Web Link CoE 2019 (Web Link)
Started: Friday, January 17, 2020 8:03:15 AM
Last Modified: Tuesday, March 03, 2020 11:41:35 AM
Time Spent: Over a month
IP Address: 200.42.50.77

Page 1: About the Centre of Excellence

Q1 Please select your Centre of Excellence (CoE) from the list below. **Argentina**

Q2 Does the CoE have a webpage dedicated to explain its involvement and support to VLab? **No**

Page 2

Q3 Please provide the URL to access the webpage **Respondent skipped this question**

Q4 What is the profile of the people supporting training activities in the CoE? **Training Manager,**
Part time trainer,
Researcher,
Forecaster,
Administrative staff,
University lecturers,
 Other (please specify):
 SIM support- Video support. some of the tasks are carried out by the same person, Our Coe is composed of 3 persons, (manager, administrative and instructional designeron moodle) all the others ticked in the options are required for each course

Q5 Please use the space below to provide any additional comments regarding Question 4. Comments could include number of staff, proportion of support received from different institutions supporting the CoE or anything else regarding the support to plan and offer training in the CoE.

WMO, EUMETSAT and NOAA-CIRA support CoE SMN in a variety of ways: offering advice, sharing resources, funding projects and people to assist training. COMET has directed and guided the collaboration of argentine experts in the development of a Comet module on GLM. The Department of Atmospheric and Ocean Science (DCAO-UBA) staff is composed by 31 professors, 19 head teaching assistant and 15 teaching assistant. The DCAO has full-time and part-time staff involved in training activities at the different levels. Although part-time training staff is high most members have a full time dedication at the Faculty as research members of the National Council of Scientific and Technical Research (CONICET) or other national and international Agencies or through PhD or post-doc fellowships.

Q6 Are regular opportunities offered to trainers in your CoE, to further develop their skills on "planning, designing and facilitating training"? **Yes**

Page 3

Q7 Please comment on the sort of training provided to trainers and the frequency.

We need to strengthen training for trainers. We offer Training in Competency course twice a year regularly for RIII and IV in spanish. We also share train the trainter resources in our google site CRF Argentina:<https://sites.google.com/site/crfpar3/home>. for RII and RIV spanish . International collaboration helps trainers by sharing their resources and offering advice. The DCAO of UBA has a long-lasting tradition in educating meteorologists not only in Argentina, but also across South America. UBA's department of atmospheric sciences, has educated generations of meteorologists, including many professors in universities across RA-III, most professional meteorologists in Argentina and a significant number in other countries of the region. The members of the Department are highly qualified, including internationally recognized scientists involved in international bodies, such as the IPCC and various WMO bodies. Their competencies as educators and trainers and as an institution comply with WMO-1114, and the post-graduate programmes (PhD and Masters) are accredited in the highest category by the National Committee of University Assessment and Accreditation. As part of a higher education institution, DCAO has both a strong component of face-toface lectures and is also concerned with delivering education with state-of-the art technologies and methods. The skill of DCAO staff is very high. All professors are PhDs, many have post-docs outside Argentina and most teaching assistants also have PhDeducation level. The full time staff is supported by the University. Having a rented position in our University is very competitive, and, depending on category, personnel performance is evaluated each 3 or 7 years in a public and open contest. It should be stressed that all the Professors are judged once each 7 years through the participation of a board of experts coming from outside the University (most of them, in fact, come from other countries).

Q8 Please comment if there is a need for this sort of training (training of trainers) in the CoE and if so, what are the difficulties to provide it.

Yes there is a need for trainers in Sat images to meet regionally and internationally in a workshop to discuss training programmes and plans. Collaboration needs to be fostered and directed for it to happen. There is still a trend to develope and deliver training separately or none at all in RII and RIV spanish. The delivery modes and training strategies need to be improved . It is important to have a train the trainers EVENT specifically for trainers and developers on the application of stellite images (in combination with other date)

Q9 Does the CoE have representation in a regional Coordination Group for Satellite Data Requirements (SDR)? **Yes**

Q10 What were the major achievements of the CoE during this reporting period?

1) The participation of Argentine trainers and developers in international events such as CALMET, Joint Sat Conference or courses (Summer School at CIRA, SAFMadrid / visits, Collaboration as trainer with AEMET SAT and Radar course) Relampago Project provides a great opportunity for young professionals to be motivated and implement what they learn in all aspects. 2) Updating Workbook with SIM evaluations from independt courses on CMs 3) Offering SAT Images and Radar Images courses to observers and the application of Sat and Radar images in the modules of Monitoring the weather and describing Present and Past Weather. The university delivered a significant number of courses, for all the community of region III, and incorporated conceptual models in the regular courses.

Q11 What were the main difficulties of your CoE during this reporting period?

Internal difficulties at SMN -lack of time due to structural changes and adoption of new technologies. Experts are not available. The Department of Atmospheric and Ocean Science receives a yearly budget according to the number of students in our Department. Since the total number of students is low the economic resources are also few. These affects acquiring new equipment or keeping up to date computers for the use of students in different courses.

Q12 Please, provide a statement describing a situation where an activity organised by the CoE resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

Active support to the introduction of the new generation of satellites; • Promotion to encourage participation in Regional Focus Group (RFG) sessions; • maximise visibility of resources by the creation and maintenance of a central library/repository for recorded RFG sessions and other • engaging directly with its co-sponsors WMO (through IPET-SUP) and CGMS; • engaging increasingly with other international entities providing training • supporting online capability in classroom events; • the assurance of high quality of training using state-of-the-art educational tools and methods; • encouraging the availability of more training material in WMO official languages other than English; Each subject update their contents accordingly the new generation of satellites. For example, the subject Principles of Remote Sensing for atmosphere observation update their exercise of GOES-R to GOES-16.

Page 4: About Training

Q13 How does the CoE investigate its regional training needs?

1) a comprehensive training needs survey was carried out in 2018 , we use the same survey to work on updating needs and prioritizing together with heads of department of SMN and other countries. Exploring and searching for documents and reports of current meetings where directors or others express training needs. Also taking into account WMO priorities , course that are not available etc. In the university, Training needs are identified through specific requirements that we receive from our National Weather Service, through our graduate students and through our staff, who is involved in a wide variety of professional and research activities at national and international levels. For this reason, the DCAO-UBA realise surveys regularly to identify research and training needs of our community are. Moreoves, the participation of our staff in many Panels (VAMOS, WCRP, LPB, and IPCC among others) provides a critical feedback to keep our programmes updated. CoE Argentina DCAO-UBA is focus toward a university degree and theoretical aspects of meteorology and provide a near real time satellite and model data to students at the university campus. The DCAO-UBA need to improve the computer lab through an upgrade of their server. If DCAO-UBA had more funds, in addition to addressing the above, it would like to support visits from experts on several fields, and to open short intensive courses.

Q14 What is the main audience addressed by the training the CoE provides? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

SMN trains forecasters, observers, meteorologists. The courses and programs at DCAO-UBA provide college education for undergraduate and graduate students: 1. BSc.. in Atmospheric Sciences (5 years) 2. BSc. in Oceanography (5 years) 3. PhD in Atmospheric Sciences (5 years) 4. PhD in Oceanography (5 years) 5. MSc. Agricultural Meteorology (2 years) 6. MSc. Environmental Sciences (2 years) After the change of curricula in 2018 the Higher Technician degree is not a deliverable. We hope to include a new plan as soon as possible. DCAO-UBA is also involved in interdisciplinary graduate and postgraduate programmes: 1. Licensee in Paleontology 2. Licensee in Biology 3. Master in Environmental Sciences DCAO also offers special short courses that are also targeted to operational meteorologists, space weather, radar and satellite applications, climate extremes analysis, nowcasting, and volcanic ash. In addition, DCAO has developed a Distance Learning General Meteorology course for non-meteorologists.

Q15 Is any kind of Learning Management System used by your CoE to conduct training activities? **Moodle**

Q16 Is any kind of Online Conferencing System used by your CoE to conduct training activities? Other (please specify):
we do not have a conferencing system. So we use free Blue Jeans, skype and hangouts

Q17 Are the training events organised by the CoE advertised in the online Training Calendar used by VLab? **Yes**

Page 5

Q18 Please use this space to provide comments on the reasons the CoE does not advertise training events in the VLab online calendar. **Respondent skipped this question**

Q19 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

We are overburden with work so we have missed submitting some of the courses. language is a problem . We have our own site withn calendar , programme and online registration . We also try to present the courses in Global Campus.

Q20 Would your CoE be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes? **Yes**

Page 6

Q21 Please indicate what training resources you would like to request permission to reuse.

First I would like to see the courses, mostly to learn the style methodology, tactics, activities and instructional design. Then to check the content priorities. I like very much to reuse and adapt. But I see some experts are a bit reluctant and they like to develop their own resources (of course many times they do not !). But having other courses as bases makes a great difference - it is essential as a framework and standard and it is more than using a training resource, it connects experts or operational personnel (who act as trainers) internationally influencing their performance at work, that is the trainers themselves learn a lot. To keep updated it would be great to see the following: 1- Online RA-I Meteorological Satellite Applications 2020. 2-International Summer School on Applications with the Newest Multi-Spectral Environmental Satellites

Q22 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

1) CoE Argentina SMN-UBA has a proposal for Space weather course for forecasters directed by PhD Sergio Dasso. We are also interested in collaboration with Brazil for a joint course and possible workshop in applications of Space Weather for aeronautical forecaster and other services. We are searching for funds to be able to achieve this. We think VLab's support for this course for RIII and IV in spanish in 2020 is essential to respond to needs of the region. 2) About Climate Services there are several courses being planned within projects such as Euroclima, Climandes, Iberoamerican collaboration and others. Although there is a lot of work on the interpretation of Precipitation through satellite, the climate courses do not yet apply sat skills. 3) Big Data- There will be special sessions on Big Data during 2020 (under development). During 2019, we offered the following courses: * "Curso intensivo sobre asimilación de datos y teoría de filtrado", * "Información Satelital: Aplicaciones para el Conocimiento de la Atmósfera", * "Principios y Aplicaciones de los Radares Meteorológicos", * "Oceanografía Satelital. Also, every two year we offer a course of "Meteorología Espacial". In 2020, we will offer the courses mentioned above, and also, we will add a course of "Sensado remoto terrestre con técnicas activas y pasivas". Moreover, a course of Machine Learning in the Earth Sciences is being prepared. During 2019, we offered the following courses: * "Curso intensivo sobre asimilación de datos y teoría de filtrado", * "Información Satelital: Aplicaciones para el Conocimiento de la Atmósfera", * "Principios y Aplicaciones de los Radares Meteorológicos", * "Oceanografía Satelital. Also, every two year we offer a course of "Meteorología Espacial". In 2020, we will offer the courses mentioned above, and also, we will add a course of "Sensado remoto terrestre con técnicas activas y pasivas". Moreover, a course of Machine Learning in the Earth Sciences is being prepared.

Page 7: About VLab collaboration

Q23 Is the CoE working closely together with its supporting Satellite Operator/Agency in VLab training activities? **No**

Q24 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

Communication with CONAE regarding Training has been very difficult/ null during 2019. CoE SMN and UBA are very well related among each other but not with CONAE. They do a lot of work and carry out training on their own. SMN and CONAE have agreements related to SDR. A General framework of agreement has been reached, by the end of 2019. But agreements on specific area must be developed with support from Directors of both institutions. This is relevant to make efficient use of funds. In January 2020 we had an excellent start with a long meeting of the CoEs (SMN- UBA) with CONAE and decided how to communicate training plans and carry out 1 initiative together.

Q25 What sort of support would you like to receive from other CoEs, Supporting Satellite Operators/Agencies, WMO Space Programme, VLab Co-chairs and TSO?

1) We need INTEGRATION. We have young experts who would absorb good practice by establishing contact with other organizations by visiting a workplace, assisting workshops, participating in projects as peers. VLab could provide opportunities to put sharing into practice. CoEs could to share their strategic plans (that is before the training is developed) to see common interests and make a roadmap together. We have eager experts who can collaborate in developing and delivering training led by others who get funding. CoEs should actually develop regional training plans in the application of satellite data. At the university we would like to receive information on training opportunities for our staff, courses for our students, and if necessary financial support for assisting to the courses.

Q26 What sort of support could you offer to other CoEs, Supporting Satellite Operators/Agencies and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

Active participation in RFG sessions (CIRA). Organise joint training events . We offer translations. Experts from all sectors who would like to have discussion groups or work in collaboration. Professionals in Social Science working at SMN can provide guidance to RIII in respect to communicating with users and DRR. We can host online courses from others in our Moodle. We can host events in our premises.

Page 8: Training Resources and Training Events

Q27 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your CoE in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the CoE in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

NOTE: All reporting tables submitted were combined. These are available in one unique spreadsheet named **Summary_Activities_2019**. The file is available to download from <https://www.wmo-sat.info/vlab/coe-reports/>

#6

COMPLETE

Collector: Web Link CoE 2019 (Web Link)
Started: Friday, December 13, 2019 2:21:19 AM
Last Modified: Tuesday, December 17, 2019 3:58:05 AM
Time Spent: Over a day
IP Address: 124.47.137.7

Page 1: About the Centre of Excellence

Q1 Please select your Centre of Excellence (CoE) from the list below. **Australia**

Q2 Does the CoE have a webpage dedicated to explain its involvement and support to VLab? **Yes**

Page 2

Q3 Please provide the URL to access the webpage

<http://www.virtuallab.bom.gov.au/>

Q4 What is the profile of the people supporting training activities in the CoE? **Training Manager, Full time trainer**

Q5 Please use the space below to provide any additional comments regarding Question 4. Comments could include number of staff, proportion of support received from different institutions supporting the CoE or anything else regarding the support to plan and offer training in the CoE.

The current Training Manager and Manager of the Australian VLab Centre of Excellence is Dr. Mick Pope. Full time trainer and Australian VLab Centre of Excellence Point of Contact is Mr. Bodo Zeschke. In addition, we have been assisted by the BMTC Tropical Cyclone Competency Trainer, Mr. Joe Courtney. Joe has presented a number of remote sessions pertaining to Tropical Cyclone Meteorology during our VLab Regional Focus Group (RFG) sessions. Korea Meteorological Administration staff, including Dr. Hye-Sook Park of the Korea VLab Centre of Excellence have also been active in presenting at our VLab RFG sessions during the past year.

Q6 Are regular opportunities offered to trainers in your CoE, to further develop their skills on "planning, designing and facilitating training"? **Yes**

Page 3

Q7 Please comment on the sort of training provided to trainers and the frequency.

Training staff, particularly those conducting (competency) assessments complete a nationally accredited Certificate IV in Workplace Training and Assessment. Individual training for developing training resources in relevant software (e.g. Dreamweaver, GoToWebinar, Moodle, BigBlueButton) is provided as required. Staff are supported to attend relevant education-oriented conferences (e.g. that of the Australasian Society for Computers in Learning in Tertiary Education, CALMet) or Moodle symposiums. From time to time particular staff members participate in relevant distance learning courses and conferences to improve their subject knowledge.

Q8 Please comment if there is a need for this sort of training (training of trainers) in the CoE and if so, what are the difficulties to provide it.

The point of contact, Mr Bodo Zeschke has been active in engaging Mr Joe Courtney of BOM, BMKG Indonesia and KMA staff, particularly Dr Hyesook Park in offering guidance when presenting at RFG meetings. This included the use of the Socrative cloud based learner response system. Most recently Mr Zeschke has collaborated with international representatives to ensure that the majority of the training activities during AOMSUC-10 utilised Socrative for audience engagement. Mr Zeschke is keen to train additional BOM and overseas staff in the delivery of interactive RFG meetings as a means to deliver remote training within the context of the Global Campus. The difficulty is in engaging these staff. This is in part due to their work commitments and also due to a certain reticence due to the fact that for many English is not the first language.

Q9 Does the CoE have representation in a regional Coordination Group for Satellite Data Requirements (SDR)? **Yes**

Q10 What were the major achievements of the CoE during this reporting period?

The Australian VLab Centre of Excellence celebrated six years of monthly RFG meetings during the session conducted on the 26th September 2019. Joint RFG meetings in the style of the WMO "Global Campus" were conducted with the Korea VLab Centre of Excellence during December 2018, April, July and October 2019. Continuing close cooperation with the Korea VLab Centre of Excellence with BMKG Indonesia and with our Sponsoring Satellite Operator, the Japan Meteorological Agency and with US agencies occurred during the past year. From a pedagogical perspective a significant outcome has been the further development of the Socrative cloud based learner response system to teaching at BMTC and within VLab and International Training Event sessions. The Korea VLab Centre of Excellence Manager and Point of Contact Dr Hyesook Park was invited to the Bureau of Meteorology Training Centre during April / May 2019. This visit included meetings with BOM/BMTC staff pertaining to closer future collaboration in training activities between the Australian Bureau of Meteorology (BOM) and the Korea Meteorological Administration (KMA). Dr Park and Mr Zeschke also collaborated in designing and implementing 3D stereo satellite image training material utilising Geo-KOMPSAT-2A and Himawari-8 data. The students of the 2019 Graduate Diploma of Meteorology training course provided a testbed of these resources and their suitability for use by forecasters. A report summarising this and titled "The examination of three dimensional stereo satellite imagery by 2019 Bureau of Meteorology Training Centre Graduate Diploma of Meteorology students, Bodo Zeschke and Korea Meteorological Administration staff member Dr Hyesook Park" was disseminated in September 2019. The Australian VLab Centre of Excellence Point of Contact, Mr Bodo Zeschke, conducted satellite meteorology training sessions during the AOMSUC-9 Training Event during October. The National Himawari-8 Training Campaign is currently in the Ongoing Support Phase. During this phase Australian Bureau of Meteorology, WMO Region V and other stakeholders assist in providing expertise in developing satellite meteorology training resources for use within BMTC and the VLab. There are ongoing efforts to implement the Enabling Skills Document into the Australian VLab Centre of Excellence Training Resources.

Q11 What were the main difficulties of your CoE during this reporting period?

Shortage of human resources / geographical location: A single staff member (Bodo Zeschke) delivers the vast majority on content for the Australian CoE. However there is a need to build additional capability so that there is less reliance on a single trainer for VLab activities. To that effect we plan to engage additional BMTC teachers to deliver RFG presentations in future. Due to our geographical location and time zone differences it is often difficult to attend remote lecture / course sessions conducted by European agencies (EUMETSAT) or agencies from the Americas. This highlights the need for the ongoing creation of online resources that can be used asynchronously. Funding Training in the Bureau of Meteorology operates within a strict budget. Satellite activities compete with other training priorities for funds. BMTC supports VLab activities through a significant investment from a trainer within the Meteorologist Initial Training team. Internet issues Occasionally there are issues related to the transmission of the RFG sessions due to limited Internet bandwidth of stakeholders in the southwest Pacific / southeast Asian region. Socrative surveys conducted throughout 2019 indicate that this is a noteworthy though not significant issue. To mitigate this, recordings of the sessions have been posted on our VLab web page. These recordings have been subdivided into subtopics and presented in a variety of formats for easier downloading and stakeholder use. Other limitations Delivering training to internal students may restrict the time available to provide training in satellite meteorology through the VLab CoE.

Q12 Please, provide a statement describing a situation where an activity organised by the CoE resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

The delivery of Regional Focus Group (RFG) sessions Continuing delivery of 11 monthly RFG meetings from December 2018 to November 2019 with an average of at least 30 attendees per session principally from WMO RAV, RAI, RAIV. Celebrating 6 years of monthly RFG meetings. Ongoing strong attendance by JMA, KMA, BMKG Indonesia and the USA to these meetings. A notable increase in attendance by Myanmar and Samoa to these meetings, largely attributed to the action of local champions. The assurance of high quality training using state-of-the-art educational tools and methods The collaboration between Bureau of Meteorology, WMO RAV and RAI experts and Mr Bodo Zeschke during the Ongoing Support Phase of the National Himawari-8 Training Campaign is ensuring that satellite meteorology training resources for use within BMTC and the VLab continue to be world class. The Socrative cloud based learner response system has been used in RFG meetings during 2019. This response system has also been used effectively during the AOMSUC-10 Training Event, ensuring audience engagement during these sessions.

Page 4: About Training

Q13 How does the CoE investigate its regional training needs?

This occurs on a number of levels. Australian VLab Centre of Excellence staff collaborate with WMO RA-V Satellite Users Group representatives within the Australian Bureau of Meteorology. This collaboration included attendance by Mr. Zeschke to the joint meeting of RAI WIGOS Project and RA V TT-SU for RAI and RAV NMHS's held in Melbourne during December 2019. Socrative was used to obtain feedback pertaining to RFG training needs in the follow up session to the December 3 RFG meeting during the AOMSUC-10. There is ongoing correspondence with contacts within WMO RAI and RAV prior to, during and after overseas training missions, conferences and workshops. We have ongoing collaboration with our contacts within WMO RAI and RAV in developing RGB products within our region. This is facilitated through exchange of regional case studies suitable for training purposes.

Q14 What is the main audience addressed by the training the CoE provides? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

Training is provided during RFG meetings. These are attended by forecasters, meteorologists and other trainers. During 2019 BMTC Graduate Diploma of Meteorology students attended these meetings and we hope to repeat this in future years. Training provided at Conference Training Events is attended by forecasters, meteorologists, trainers, subject experts and researchers.

Q15 Is any kind of Learning Management System used by your CoE to conduct training activities?

Other (please specify):

The Australian VLab Centre of Excellence web page is delivered through the Concrete5 content management system. For internal Bureau training we use the Moodle learning management system. In the coming year we plan to transfer some of the VLab resources to the Moodle system.

Q16 Is any kind of Online Conferencing System used by your CoE to conduct training activities?

Other (please specify):

Currently we are using the GoToWebinar software. We are planning to use Big Blue Button to host RFG meetings during 2020.

Q17 Are the training events organised by the CoE advertised in the online Training Calendar used by VLab?

Yes

Page 5

Q18 Please use this space to provide comments on the reasons the CoE does not advertise training events in the VLab online calendar.

Respondent skipped this question

Q19 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

Over the past year I have often advertised our RFG meetings on the VLab Training Calendar. Sometimes I have forgotten this, due to a busy work routine. I will have to continue to work on this. Training sessions such as our monthly RFG meetings are advertised independently to a very wide audience including members from all WMO regions.

Q20 Would your CoE be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes?

Yes

Page 6

Q21 Please indicate what training resources you would like to request permission to reuse.

The display of Himawari-8, Geo-KOMPSAT-2A and Fengyun-4A satellite data and data products as well as other observations and NWP on an "Eport" type of platform for the Australasia-Pacific region. More COMET modules pertaining to Himawari-8, Geo-KOMPSAT-2A and Fengyun-4A. Existing modules have already been linked to our National Himawari-8 Training Campaign web page. Forecaster Friendly End-to-End Case Studies incorporating Himawari-8, Geo-KOMPSAT-2A and Fengyun-4A satellite data and data products for the training of Forecasters and Trainee Forecasters within WMO RAV.

Q22 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

We have conducted some VLab training pertaining to the Climate theme during our RFG meetings. This included the presentation of climate data within our Weather and Forecast discussions. Some RFG meetings focussed on climatology, for example the presentations of Indonesian climatology during the VLab meetings of the 30th January 2018, 7th June 2016, 5th May 2015, 4th February 2014, see <http://www.virtuallab.bom.gov.au/archive/regional-focus-group-recordings/> The Australian Bureau of Meteorology does have a Space Weather Service, see https://www.sws.bom.gov.au/Space_Weather We have not conducted user surveys pertaining to the suitability of incorporating the topics of Big Data and Space Weather into our RFG meetings. It would be useful if the coordinating bodies of the WMO-CGMS VLab could take the lead here and present some remote sessions on these topics that could be disseminated for feedback by the Centres of Excellence.

Page 7: About VLab collaboration

Q23 Is the CoE working closely together with its supporting Satellite Operator/Agency in VLab training activities? **Yes**

Q24 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

VLab activities over the past year by the Australian VLab CoE have included continuing collaboration with the Sponsoring Satellite Operator the Japan Meteorological Administration (JMA), particularly Mr Akihiro Shimizu. JMA staff have attended every one of our RFG meetings from December 2018 to November 2019. We have forwarded Mr. Shimizu regional case studies that demonstrate our work in tuning Himawari-8 RGB products. In addition collaboration with JMA has included the development and dissemination of 2.5 minute Himawari Request data and 3D stereo satellite case studies to the broader community during the RFG meetings of December 2018, February, March, May, July, August and October 2019.

Q25 What sort of support would you like to receive from other CoEs, Supporting Satellite Operators/Agencies, WMO Space Programme, VLab Co-chairs and TSO?

Centres of Excellence to work collaboratively to support outcomes related to other WMO initiatives, for example, the Global Campus, Disaster Risk Reduction (SWFDP) and in addition Impact Based Decision Support Services (IBDSS). Collaborative work between Satellite Operators, other CoE's and Regional Satellite Champions in producing multi-satellite products such as 3D stereo satellite imagery and investigating the benefits of this data to the work of meteorologists.

Q26 What sort of support could you offer to other CoEs, Supporting Satellite Operators/Agencies and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

Assisting the Supporting Satellite Operator in providing feedback on the implementation of Himawari-8 data and data products over the Eastern Hemisphere by Forecasters, Satellite Champions and other stakeholders. Collaborate in RFG sessions organised by other CoE's, especially within the Eastern Hemisphere. We would also be interested in contributing to briefings and RFG meetings conducted by the Beijing and Nanjing VLab Centres of Excellence. Presenting cutting edge training sessions at Conference Training Events, for example Mr. Zeschke's contributions to the AOMSUC-10 Training Event during December 2019.

Page 8: Training Resources and Training Events

Q27 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your CoE in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the CoE in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

NOTE: All reporting tables submitted were combined. These are available in one unique spreadsheet named Summary_Activities_2019. The file is available to download from <https://www.wmo-sat.info/vlab/coe-reports/>

#1

COMPLETE

Collector: Web Link CoE 2019 (Web Link)
Started: Thursday, December 05, 2019 12:41:06 AM
Last Modified: Friday, December 06, 2019 4:12:23 PM
Time Spent: Over a day
IP Address: 69.31.113.168

Page 1: About the Centre of Excellence

Q1 Please select your Centre of Excellence (CoE) from the list below. **Barbados**

Q2 Does the CoE have a webpage dedicated to explain its involvement and support to VLab? **No**

Page 2

Q3 Please provide the URL to access the webpage **Respondent skipped this question**

Q4 What is the profile of the people supporting training activities in the CoE? **Training Manager,
Full time trainer,
University lecturers**

Q5 Please use the space below to provide any additional comments regarding Question 4. Comments could include number of staff, proportion of support received from different institutions supporting the CoE or anything else regarding the support to plan and offer training in the CoE.

Currently the primary staff support comes from the Chief Meteorologist and Meteorologist in charge of satellite training both at the CoE and at the associated University programme.

Q6 Are regular opportunities offered to trainers in your CoE, to further develop their skills on "planning, designing and facilitating training"? **Yes**

Page 3

Q7 Please comment on the sort of training provided to trainers and the frequency.

The Trainers at the CoE took advantage of NOAA training events; WMO Train the Trainer events; CALMET face to face and online events; and any training opportunity that arises. Training is regulated by trainers' teaching schedules.

Q8 Please comment if there is a need for this sort of training (training of trainers) in the CoE and if so, what are the difficulties to provide it.

Training in the form TnT is always welcomed but the staff numbers are limited and available very limited

Q9 Does the CoE have representation in a regional Coordination Group for Satellite Data Requirements (SDR)? **Yes**

Q10 What were the major achievements of the CoE during this reporting period?

In July 2019 the CoE co-organised and hosted the Americas Satellite Workshop (formerly Barbados Satellite Workshop) which served as one of the series of NOAA workshops to train focal point from Regional National Hydrological and Meteorological Services (NHMS) in satellite meteorology. It also served as the second Severe Weather Forecasting Demonstration Workshop (SWFDP) in the use of the Next Generation of Satellite Imagery. The focus of the workshop was on mesoscale weather forecasting, use of satellite images and products from GOES East ABI and the Joint Polar Satellite System (JPSS) data and products for forecasting, and access to satellite data via GEONETCast- Americas (GNC-A) and other sources via the internet. As a satellite focused training event it fell under the CoE VLab team.

Q11 What were the main difficulties of your CoE during this reporting period?

Little has changed in the last year and the CoE continues to lack more staff to expand on VLab activities.

Q12 Please, provide a statement describing a situation where an activity organised by the CoE resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

The Barbados CoE continues to work towards the VLab 2020 to 2025 objectives by:

- Developing and implementing training interventions, relating the intervention to the skills, competencies and qualification frameworks where they exist;
- o CoE Barbados continues to conduct training in the Satellite Meteorology in all levels of its training. The largest concentration of training is at the level of Meteorologist in the B. Sc. programme and in the Aeronautical forecasters' programme. All training is closely aligned to WMO No 1083 and the WMO sp-12 Satellite Skills document.
- Encouraging evaluation of the impact of the training for the use of satellite data and products and its long-term benefits;
- o CoE Barbados is working to encourage the use of new GOES-16 Channel imagery beyond the traditional GOES VIS, Water Vapour and Infrared among the regional forecasters. The invention of the Next generation satellite imagery is already beginning to have an impact on the operational forecasting.
- Encouraging the availability of more training material in WMO official languages other than English;
- o All training is currently in English but CoE has collaborated in the past to have training material translated into Spanish.
- Encouraging exchange of information between researchers and operational users in developing new products from current satellite data that can lead to improved meteorological services;
- o CoE Barbados is working with the NOAA Satellite International Training Working Group (SITWG) in the development of training workshops in the WMO RA 3 and 4 meteorological services on the use and access to GOES-16 and JPSS imagery to better prepare diagnosis and forecast.
- Promoting the benefits of using new satellite-based products and providing technical support, where possible, to make them available to users;
- o The CoE uses GOES-16 and JPSS imagery in its training classes and in recent training event in Weather and Climate Ready Nation (WRN) which will be launched in the Region in 2020.
- o Currently CoE Barbados is engaged in the training the Severe Weather Forecast Demonstration Project -Eastern Caribbean (SWFDP-EC) and the EUREC4A Field Project initiative. Both projects require training and satellite meteorology for operational regional forecasters.
- Promoting good practice in training within the WMO Global Campus network and growing relationships with other training centres in allied areas such as oceans, agriculture, and forestry to explore opportunities to collaborate and share tools and knowledge for the delivery of the VLab objectives; encouraging those programmes to use the WMO competency frameworks;
- o CoE Barbados is participant of the WMO Global Campus. Its current courses are registered on the Global Campus platform.
- Engaging actively with the WMO Global Campus and contributing to the continuous development of WMO Learn;
- o CoE is an active participant and contributor to WMO Global Campus.
- Increasing the coordination and collaboration between CoE's in order to maximise the efficiency of effort;
- Developing or exploring guidance for impact-based decision support services (IDSS) and Global Framework for Climate Services (GFCS) applications;
- o The CoE is the main training agency in the launching of the Weather and Climate Ready Nation (WRN) which will be launched in the Region in 2020.
- Increasing efforts to engage with the next generation of young professionals in all fields related to the work of WMO and to create more opportunities for them to participate in and contribute to WMO activities; promoting mentoring and peer to peer learning opportunities for both students and instructors.
- o CoE Barbados has a very active and long-standing internship program which engages young meteorology, hydrology and computer science students in various research activities. In 2018 and 2019 one of the interns, Ms Shanice Whitehall took part in the Saharan Air Layer (SAL) Satellite Monitoring Project in 2018. Ms Whitehall also got the opportunity to attend the NOAA Summer Satellite Workshop at CIRA Fort Collins Colorado, USA.
- o Other interns have done work on the use of GOES-16 imagery for operational use in the Caribbean and using GOES-16 imagery to evaluate the development of the Hurricane Maria.

Page 4: About Training

Q13 How does the CoE investigate its regional training needs?

There is regular communication at various levels between CoE Barbados (CIMH) training staff and hydro-meteorological services within the Caribbean Meteorological Organization (CMO) Member Countries regarding training needs. The CMO Members are the main stakeholders of CIMH. Suggestions are submitted in the various workshops. CoE Barbados also answers requests for training events.

Q14 What is the main audience addressed by the training the CoE provides? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

The audience for satellite training is as follows: University students - satellite meteorology is taught in the final or senior year of the B. Sc. in meteorology programme; Regional Trainee forecasters in the Senior Level Meteorological Technicians' course - these trainees enter the meteorological services across the region; current meteorologists and forecasters in continuing professional development training to introduce Next Generations satellites.

Q15 Is any kind of Learning Management System used by your CoE to conduct training activities? **Moodle**

Q16 Is any kind of Online Conferencing System used by your CoE to conduct training activities? Other (please specify):
Zoom and WizIQ

Q17 Are the training events organised by the CoE advertised in the online Training Calendar used by VLab? **Yes**

Page 5

Q18 Please use this space to provide comments on the reasons the CoE does not advertise training events in the VLab online calendar. **Respondent skipped this question**

Q19 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

The VLab Calendar continues to a vital scheduling and alerting tool for training events.

Q20 Would your CoE be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes? **Yes**

Page 6

Q21 Please indicate what training resources you would like to request permission to reuse.

EUMETSat and COMET training modules

Q22 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

CoE Barbados is now investigating the use of 'big' data in Climate monitoring ,

Page 7: About VLab collaboration

Q23 Is the CoE working closely together with its supporting Satellite Operator/Agency in VLab training activities? **Yes**

Q24 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

The collaboration between CoE and NOAA /CIRA and the agent for NOAA as a Satellite Operator.

Q25 What sort of support would you like to receive from other CoEs, Supporting Satellite Operators/Agencies, WMO Space Programme, VLab Co-chairs and TSO?

CoE Barbados enjoys a very good relationship with NOAA USA, its Support Satellite Operator via the CIRA in Fort Collins CO. USA. And equally so with WMO Space programme and the VLab officers. It will strive to continue and build on this relationship.

Q26 What sort of support could you offer to other CoEs, Supporting Satellite Operators/Agencies and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

Despite limited staff time, CoE Barbados remains committed to assist and collaborate where possible, and of the VLab's CoEs.

Page 8: Training Resources and Training Events

Q27 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your CoE in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the CoE in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

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#5

COMPLETE

Collector: Web Link CoE 2019 (Web Link)
Started: Friday, December 13, 2019 6:53:11 PM
Last Modified: Friday, December 13, 2019 8:17:06 PM
Time Spent: 01:23:54
IP Address: 2.16.189.4

Page 1: About the Centre of Excellence

Q1 Please select your Centre of Excellence (CoE) from the list below. **Brazil**

Q2 Does the CoE have a webpage dedicated to explain its involvement and support to VLab? **Yes**

Page 2

Q3 Please provide the URL to access the webpage

<http://webaula.cptec.inpe.br/visitview/>

Q4 What is the profile of the people supporting training activities in the CoE? **Training Manager,
Researcher,
Administrative staff**

Q5 Please use the space below to provide any additional comments regarding Question 4. Comments could include number of staff, proportion of support received from different institutions supporting the CoE or anything else regarding the support to plan and offer training in the CoE.

We have 7 researchers supporting our training and administrative staff of our division.

Q6 Are regular opportunities offered to trainers in your CoE, to further develop their skills on "planning, designing and facilitating training"? **No**

Page 3

Q7 Please comment on the sort of training provided to trainers and the frequency. **Respondent skipped this question**

Q8 Please comment if there is a need for this sort of training (training of trainers) in the CoE and if so, what are the difficulties to provide it.

Yes, it would be desirable. The difficulty is reading the limited number of skilled personal to provide this type of training at our CoE. Have though served ourselves from training provided by other CoEs and international events.

Q9 Does the CoE have representation in a regional Coordination Group for Satellite Data Requirements (SDR)? **Yes**

Q10 What were the major achievements of the CoE during this reporting period?

Support for Geonetcast users via blog, webinars and tutorials. Implementation of a full distance learning GOES-16 training for Meteorologists. Training for operational meteorologists on Nowcasting.

Q11 What were the main difficulties of your CoE during this reporting period?

The VLab manager stay out of office for 6 months for maternity license and a scholarship fellow which was working on the development of new training resources using MOODLE platform ended his program.

Q12 Please, provide a statement describing a situation where an activity organised by the CoE resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

Our training on Nowcasting for operational meteorologists and civil defense operators, for example, provided training on new satellite imagery and products of GOES-16 (ABI and GLM), as well as radar data and NWP output fields, and tools that combine these data for nowcasting, developed by our institution. During the training the participants had a competition on the usage of these resources to provide short-term forecasting and timely information for decision makers and services. All this is entirely within the scope of the VLab 2015-2019 strategy document, stated in the mission, objectives and strategic drivers.

Page 4: About Training

Q13 How does the CoE investigate its regional training needs?

By requests made directly by national and regional centers, and surveys that are from time to time sent out to the institutions.

Q14 What is the main audience addressed by the training the CoE provides? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

Forecasters, university students, meteorologists, researchers, emergency service providers (civil defense), environmental agency.

Q15 Is any kind of Learning Management System used by your CoE to conduce training activities? **Moodle**

Q16 Is any kind of Online Conferencing System used by your CoE to conduce training activities? **Adobe Connect**

Q17 Are the training events organised by the CoE advertised in the online Training Calendar used by VLab? **Yes**

Page 5

Q18 Please use this space to provide comments on the reasons the CoE does not advertise training events in the VLab online calendar. **Respondent skipped this question**

Q19 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

It would be more useful if we could also use it in our own website.

Q20 Would your CoE be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes? **Yes**

Page 6

Q21 Please indicate what training resources you would like to request permission to reuse.

Training on GOES-16 imagery and products and polar satellites for meteorology and marine services.

Q22 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

We haven't done any yet, but we plan to provide training on Space weather in the next year.

Page 7: About VLab collaboration

Q23 Is the CoE working closely together with its supporting Satellite Operator/Agency in VLab training activities? **Yes**

Q24 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

We are in the same institution.

Q25 What sort of support would you like to receive from other CoEs, Supporting Satellite Operators/Agencies, WMO Space Programme, VLab Co-chairs and TSO?

Share training resources and experiences on distance learning for operational meteorologists.

Q26 What sort of support could you offer to other CoEs, Supporting Satellite Operators/Agencies and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

Collaborate in RFG sessions organized by CIRA (Bernie), organize joint training events in the Americas and share training resources in Portuguese.

Page 8: Training Resources and Training Events

Q27 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your CoE in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the CoE in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

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#21

COMPLETE

Collector: Web Link CoE 2019 (Web Link)
Started: Thursday, January 30, 2020 6:02:46 PM
Last Modified: Thursday, February 06, 2020 9:26:36 PM
Time Spent: Over a day
IP Address: 69.31.113.177

Page 1: About the Centre of Excellence

Q1 Please select your Centre of Excellence (CoE) from the list below. **Costa Rica**

Q2 Does the CoE have a webpage dedicated to explain its involvement and support to VLab? **Yes**

Page 2

Q3 Please provide the URL to access the webpage

<https://atmos.fisica.ucr.ac.cr/CoE>

Q4 What is the profile of the people supporting training activities in the CoE? **Part time trainer, Researcher, University lecturers**

Q5 Please use the space below to provide any additional comments regarding Question 4. Comments could include number of staff, proportion of support received from different institutions supporting the CoE or anything else regarding the support to plan and offer training in the CoE.

The Department consists of 10 professors with PhD degrees in Physics and Meteorology. We also have lectures from the Met Service and other related institutions around the country.

Q6 Are regular opportunities offered to trainers in your CoE, to further develop their skills on "planning, designing and facilitating training"? **Yes**

Page 3

Q7 Please comment on the sort of training provided to trainers and the frequency.

The University of Costa Rica has regular training events in areas related to teaching and tools for teaching. There is a department dedicated to online training capacities and support. Professionaly, the personnel is not trained further as all of the members hold PhD studies in their respective areas and it is considered to be part of the position to keep yourself updated and current.

Q8 Please comment if there is a need for this sort of training (training of trainers) in the CoE and if so, what are the difficulties to provide it.

There is a need for TtT activities specially in new technologies and areas outside our range or expertise (e.g. Aeronautical Meteorology). The main difficulties for these kind of events is that the participation is voluntary. Most of the training obtained by the personnel in CoE topics occurs during seminars or during meetings.

Q9 Does the CoE have representation in a regional Coordination Group for Satellite Data Requirements (SDR)? **Yes**

Q10 What were the major achievements of the CoE during this reporting period?

There have been several achievements. i) For the first time a Master program student in Operational Meteorology utilized the data from the new generation of satellites to create a product for Risk Management in the region and is now operational at the Costa Rican Met Service. It is worth mentioning that this program is online with minimum face to face lectures/tests and hence matches greatly the strategy of VLab. ii) All undergraduate students in the meteorology program are now trained in GOES 16 products and products generation including RGB. iii) We have managed to create a better way to utilize internet data distribution method to gather satellite products, with an easier installation procedure and an online training is now underway for this topic. iv) During February 2019 a face to face training took place in SENAMHI (Perú) about the utilization of GOES 16 products and using Python as a processing language for product generation.

Q11 What were the main difficulties of your CoE during this reporting period?

The MoU between the University and WMO is still going thru review by lawyers and it is taking a long time. By not having an official MoU between the institutions the funds available for the CoE and related activities are gather using side projects and related activities to the CoE. Time allocation for the professors is also a concern and currently the time dedicated to the CoE is voluntary and not recognized by the institution.

Q12 Please, provide a statement describing a situation where an activity organised by the CoE resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

We are training the new generations of meteorologists in the new generation of satellites actively supporting the utilization of information. Our students and professors are encouraged to participate in the RFG meeting every month. OSCAR is presented to the students as a source of metadata and information during the Meteorological Instruments course. Our CoE participated during 2019 of the SDR meetings and our director is now co-Chair of the SDR Group. Evaluation of course material and student perception is carried out every term by UCR.

Page 4: About Training

Q13 How does the CoE investigate its regional training needs?

Personal communications are regularly used to better understand the needs. Also in previous years a survey was sent to the PRs in the region requesting information about needs. During 2020 a new survey is planned with the support of WMO's Regional Office. A teleconference with the director of the Met Services in the region is also taking place in February 2020.

Q14 What is the main audience addressed by the training the CoE provides? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

Our main audience is university students from the region. These students can have different interests as Research, Forecast and Instrumentation. It is not the only audience as we also train technical personnel in support activities and meteorological observers.

Q15 Is any kind of Learning Management System used by your CoE to conduct training activities? **Moodle**

Q16 Is any kind of Online Conferencing System used by your CoE to conduct training activities?

Other (please specify):

There is one official system installed inside the Moodle VLE but also there are multiple ways that we use to communicate with our students including Skype, Google Hangout, Whatsapp, Telegram, and Jitsi (this last one is free and very effective).

Q17 Are the training events organised by the CoE advertised in the online Training Calendar used by VLab?

No

Page 5

Q18 Please use this space to provide comments on the reasons the CoE does not advertise training events in the VLab online calendar.

Even when we have multiple trainings that are online in nature, these can be specific for regular courses inside the University and can not be joined by general public.

Q19 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

It is a tool that contributes toward dissemination of information about events. It would be positive for our CoE to have more open trainings and advertise them in this Calendar.

Q20 Would your CoE be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes?

Yes

Page 6

Q21 Please indicate what training resources you would like to request permission to reuse.

The Quick Guides about GOES 16 channels and products. Certain COMET modules about the new generation of satellites.

Q22 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

We have used big data to gather satellite information from GOES 16 and other satellites. The main challenges are the availability of bandwidth to handle the requests in real time. Most of the time during training events the data needs to be downloaded beforehand even when the ideal case would be to use big data tools in real time. For example in the training event in Perú during 2019 we had to bring external hard drives with information of all bands for the guided practices as it was not possible to obtain the data in real time. In regard of the 2020 to 2024 period, we are working in creating an inexpensive tool to gather data that is accessible to countries in need. This way we could transfer the knowledge that we have obtained in such areas and put it to work towards improving local forecasts and risk management. At this moment we are working towards a workshop on technical aspects of data dissemination using online methods and big data (with a face to face component and also an online component) that will take place during July 2020 in Costa Rica. Funds for participants are not available yet but the need has been communicated to NOAA and WMO.

Page 7: About VLab collaboration

Q23 Is the CoE working closely together with its supporting Satellite Operator/Agency in VLab training activities? **Yes**

Q24 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

We consider that our relationship with NOAA is good. We have collaborated in many ways in the past and are always looking for new ways of collaboration. One aspect that we need to improve on is to manage to obtain short visits from our students to specialized centers like CIRA, Unidata and Universities in USA to better expose our students to their operations and procedures.

Q25 What sort of support would you like to receive from other CoEs, Supporting Satellite Operators/Agencies, WMO Space Programme, VLab Co-chairs and TSO?

Sharing experiences and perspective from other CoEs would be very valuable but it is somehow hard to interpret as different regions have different challenges, tools and support. Nevertheless, it would be important to share success stories and ways to greatly impact the focus areas. Regarding the Satellite Operators we could use some support for exceptional undergraduate/graduate students to participate in face to face trainings and short stays in institutions where Satellite Meteorology plays a major role (e.g. Cooperative Institutes, Universities). In regions like Central America and the Caribbean it can be hard to allocate funds for the appropriate satellite receivers. Small inexpensive computers could be used to obtain a subset of products to support basic operations. At our CoE we have a solution that could be provided to countries in need that do not have the resources to purchase a GRB station. This can be an inexpensive solution to a considerable problem, nevertheless as a University it is hard to allocate resources for donating such hardware to neighboring countries.

Q26 What sort of support could you offer to other CoEs, Supporting Satellite Operators/Agencies and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

We could collaborate with other CoEs in joint training events. We can also invite professors and graduate level students to support/collaborate of training activities.

Page 8: Training Resources and Training Events

Q27 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your CoE in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the CoE in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

NOTE: All reporting tables submitted were combined. These are available in one unique spreadsheet named Summary_Activities_2019. The file is available to download from <https://www.wmo-sat.info/vlab/coe-reports/>

#9

COMPLETE

Collector: Web Link CoE 2019 (Web Link)
Started: Tuesday, December 10, 2019 12:46:35 AM
Last Modified: Tuesday, December 31, 2019 8:35:56 AM
Time Spent: Over a week
IP Address: 165.254.16.77

Page 1: About the Centre of Excellence

Q1 Please select your Centre of Excellence (CoE) from the list below. **China - Beijing**

Q2 Does the CoE have a webpage dedicated to explain its involvement and support to VLab? **Yes**

Page 2

Q3 Please provide the URL to access the webpage

<http://en.cmatc.cma.cn/vlab/>

Q4 What is the profile of the people supporting training activities in the CoE? **Training Manager,**
Full time trainer,
Part time trainer,
Researcher,
Forecaster,
Administrative staff,
University lecturers,
 Other (please specify):
 international institution officer

Q5 Please use the space below to provide any additional comments regarding Question 4. Comments could include number of staff, proportion of support received from different institutions supporting the CoE or anything else regarding the support to plan and offer training in the CoE.

CMATC has a faculty of 221 members (53 with Ph.D and 92 with MA), including 1 academician of Chinese Academy of Sciences, 23 Research Fellows (Professors) , 101 professionals with senior technical titles and more than 500 Part-time instructors from home and abroad. CoE-Beijing had good discussion and cooperation with National Satellite Meteorological Centre (NSMC) in the fields such as resources sharing and teacher team building. CoE-Beijing sends instructors to NSMC for practical business communication every year in recent 3 years.

Q6 Are regular opportunities offered to trainers in your CoE, to further develop their skills on "planning, designing and facilitating training"? **Yes**

Page 3

Q7 Please comment on the sort of training provided to trainers and the frequency.

The instructors in CoE-Beijing took part in many satellite trainings in 2019. For example, the instructors in CoE-Beijing attended the RFG meeting held by VLab CoE- Australian. CoE-Beijing has sent 4 instructors abroad for exchange and cooperation in 2019.

Q8 Please comment if there is a need for this sort of training (training of trainers) in the CoE and if so, what are the difficulties to provide it.

There is a need for this sort of training. The difficulties are international training needs collection, curriculum and standards.

Q9 Does the CoE have representation in a regional Coordination Group for Satellite Data Requirements (SDR)? **Yes**

Q10 What were the major achievements of the CoE during this reporting period?

CoE-Beijing held 2 international training courses related to the application of FY Series satellite products. One is the Application of Meteorological Satellite Products in Weather Forecasting with 11 international participants. The other is the FY Satellite Products and Application, with 31 international participants from 22 countries and regions, 19 national students from the Belt and Road. CoE-Beijing held 2 domestic training courses on the Water Vapor Images theory and its application in Weather forecast, 2 domestic training courses on the Geostationary Satellite theory and its primary application, 3 domestic training courses on the FY-4 Satellite Product and its application in weather forecast, 2 domestic training course on the Satellite Remote Sensing System, 1 domestic training course on the integration of FY-3 Satellite algorithms. CoE-Beijing held 1 domestic online training course on the Online Training Series of Satellite Remote Sensing Application. CoE-Beijing built the online FY-3 Satellite Introduction and Algorithm Lab with technical support from NSMC in training capacity building. The library is open to the public globally to optimize algorithm. CoE-Beijing has built the FY4 teaching case database of basic cloud image.

Q11 What were the main difficulties of your CoE during this reporting period?

Lack enough enrollment of international trainee in international classroom training. It is difficult to organize training events with diversified backgrounds of international trainees in the same classroom. CoE-Beijing has a range of training resources in Chinese, which need translate to better utilize for international users.

Q12 Please, provide a statement describing a situation where an activity organised by the CoE resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

"Active support to the introduction of the new generation of satellites", CoE-Beijing held several training events on the application training of FY-4.

Page 4: About Training

Q13 How does the CoE investigate its regional training needs?

Collect training needs from trainees by issuing questionnaires during classroom training, email communication and discussions / seminars. Reference training needs from the guidance about satellite meteorology training and relating documents from WMO and RA II&V. Hold specialized investigation and workshops in 2019, send trainer to attend international and domestic seminars on satellite meteorology training. Frequently consult administrators from CMA to know strategic development plans, and operational experts from NSMC to know project plans and operational updates about satellite data and products. Training evaluation is continually adopted to identify training needs along with training quality, including collecting questionnaires from the users of the meteorological satellite data and products in both domestic and international training courses. Online tools (such as CMA Learning Management System, Online Conferencing System) have been frequently adopted.

Q14 What is the main audience addressed by the training the CoE provides? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

Weather Forecasters, meteorologists and researchers, Agriculture, Ecology and Environmental Protection service providers

Q15 Is any kind of Learning Management System used by your CoE to conduct training activities?

Other (please specify):
 CMA Meteorological Distance Education and Resource-sharing Platform (CMA-MDERP) and Moodle. CMA-MDERP mainly consists of Online Study and Exam, Training and Resource Management, E-conference, Interactive Community, Live Broadcasting and Staff Training File Registration systems. CMA-MDERP also provides a series of sharing courseware and teaching materials. In particular, the virtual-reality technologies are adopted for the interactive learning of the surface observation. CMA-MDERP has the capacity of 1,200 users learning streaming courseware and 1,200 user taking online exams simultaneously.

Q16 Is any kind of Online Conferencing System used by your CoE to conduct training activities?

Other (please specify):
 1. GENSEE (Interact with audience by live audio&video communication, content sharing, annotation, polls, Q&A and chat. leverage both web and client technologies which support participants to use desktop, web browsers or mobile devices to access the live classroom anytime and anywhere) 2. Cenwave Web Video Conference (Combines real-time desktop sharing with video and phone conference. Schedule meetings in advance or start an instant inline meeting and invite people to join by email or IM, and participants can easily use it to host regular meeting, cooperate with partners and colleagues, give online training, demonstrate product and do technical support).

Q17 Are the training events organised by the CoE advertised in the online Training Calendar used by VLab?

Yes

Q18 Please use this space to provide comments on the reasons the CoE does not advertise training events in the VLab online calendar. **Respondent skipped this question**

Q19 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

A Chinese version of VLab online calendar is expected because there are many users in China.

Q20 Would your CoE be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes? **Yes**

Page 6

Q21 Please indicate what training resources you would like to request permission to reuse.

Training resource on Satellite application, especially GOS, MET_10, Himawari 8.

Q22 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

Climate, planning to undertaken activities that relate to Climate

Page 7: About VLab collaboration

Q23 Is the CoE working closely together with its supporting Satellite Operator/Agency in VLab training activities? **Yes**

Q24 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

The cooperation was held by CMATC and NSMC in teacher faculty and information sharing related to Vlab training activities.

Q25 What sort of support would you like to receive from other CoEs, Supporting Satellite Operators/Agencies, WMO Space Programme, VLab Co-chairs and TSO?

Training resource on up-to-date technology and products, typical cases, trainers / experts exchanges, and training events enrollment advertising

Q26 What sort of support could you offer to other CoEs, Supporting Satellite Operators/Agencies and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

Trainers / experts collaboration, 2 international training events will be held in 2020, teacher and resource sharing on FY-4 application.

Page 8: Training Resources and Training Events

Q27 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your CoE in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the CoE in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

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#18

COMPLETE

Collector: Web Link CoE 2019 (Web Link)
Started: Friday, January 24, 2020 10:03:53 AM
Last Modified: Friday, January 24, 2020 3:40:02 PM
Time Spent: 05:36:09
IP Address: 173.205.76.61

Page 1: About the Centre of Excellence

Q1 Please select your Centre of Excellence (CoE) from the list below. **Kenya**

Q2 Does the CoE have a webpage dedicated to explain its involvement and support to VLab? **No**

Page 2

Q3 Please provide the URL to access the webpage **Respondent skipped this question**

Q4 What is the profile of the people supporting training activities in the CoE? **Training Manager,
Full time trainer,
Researcher,
Forecaster**

Q5 Please use the space below to provide any additional comments regarding Question 4. Comments could include number of staff, proportion of support received from different institutions supporting the CoE or anything else regarding the support to plan and offer training in the CoE. **Respondent skipped this question**

Q6 Are regular opportunities offered to trainers in your CoE, to further develop their skills on "planning, designing and facilitating training"? **Yes**

Page 3

Q7 Please comment on the sort of training provided to trainers and the frequency.

Trainers are offered a ToT (Training of Training) nationally annually or bi-annually, in addition, Trainers are involved ToT provided internationally especially by WMO. Trainers are also trained on new and upcoming software administration and application such as MESA - PUMA 2015

Q8 Please comment if there is a need for this sort of training (training of trainers) in the CoE and if so, what are the difficulties to provide it.

There is need for ToT at IMTR to ensure Continuous Professional Development of the trainers. Major challenge is financial support to carry out the training

Q9 Does the CoE have representation in a regional Coordination Group for Satellite Data Requirements (SDR)? **Yes**

Q10 What were the major achievements of the CoE during this reporting period?

- Collaboration with SAWS, Morocco, Niger, EUMETSAT and COMET in developing and publishing training module - Collaboration with SAWS and EUMETSAT in delivering the online phase of EISAC to over 45 participants with RA I

Q11 What were the main difficulties of your CoE during this reporting period?

- Challenges and difficulties: Financial Constraints and Human Resource - Lack of modern computing facilities

Q12 Please, provide a statement describing a situation where an activity organised by the CoE resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

The EISAC and MESA - PUMA activities enhanced knowledge and skills of participants from various NMHS which they have been able to employ and apply in their daily operations in climate monitoring activities especially for Agriculture especially in the Lake Chad Commission.

Page 4: About Training

Q13 How does the CoE investigate its regional training needs?

- Round table discussion after every course/workshop to determine additional learning needs of the participants - Peer to peer discussions and/or inquiries - Learning need demands from specific organisations

Q14 What is the main audience addressed by the training the CoE provides? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

- Forecasters, Climate Scientists, Observers, Professionals in related fields such as Agriculture, Renewable Energy, Disaster Management

Q15 Is any kind of Learning Management System used by your CoE to conduct training activities? **Moodle**

Q16 Is any kind of Online Conferencing System used by your CoE to conduct training activities?

Other (please specify):
IMTR is supported by collaborating organisations such as EUMETSAT in online conferencing to conduct training during EISAC or in case of any weather briefing.

Q17 Are the training events organised by the CoE advertised in the online Training Calendar used by VLab? **Yes**

Page 5

Q18 Please use this space to provide comments on the reasons the CoE does not advertise training events in the VLab online calendar. **Respondent skipped this question**

Q19 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

VLab online calendar is very user friendly and allows for all trainings to be viewed at a glance

Q20 Would your CoE be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes? **Yes**

Page 6

Q21 Please indicate what training resources you would like to request permission to reuse.

-EUMETrain event weeks Resources

Q22 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

Major challenge when offering training is the understaffing of NMHS thus participants are unable to attend training away from their offices, majority of our courses are classroom based and as such with less participants due to this factor render the training ineffective. - In addition, participants lack sponsorship/financial support to travel and attend training outside their country

Page 7: About VLab collaboration

Q23 Is the CoE working closely together with its supporting Satellite Operator/Agency in VLab training activities? **Yes**

Q24 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

IMTR works closely with EUMETSAT in the development of training resources and course delivery for courses such as EISAC (EUMETSAT-IMTR Satellite Applications Course) for RA I. - In addition, with the support from COMET and EUMETSAT, IMTR develops online training resources for the online module accessible at asmet.africa open to everyone specifically personnel from RA I NMHS.

Q25 What sort of support would you like to receive from other CoEs, Supporting Satellite Operators/Agencies, WMO Space Programme, VLab Co-chairs and TSO?

- Regular training seminars/workshops on emerging technologies in virtual learning, satellite data manipulation and analysis. - Sponsorship for participants to attend and participate in training hosted by IMTR. - Support to develop and manage an e-learning platform such as Blackboard dedicated to IMTR which would allow the Institute develop short courses at a higher frequency (maybe quarterly) in various application areas

Q26 What sort of support could you offer to other CoEs, Supporting Satellite Operators/Agencies and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

- Collaborate on online training activities for RA I - Collaborate on supporting participants to attend trainings

Page 8: Training Resources and Training Events

Q27 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your CoE in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the CoE in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

NOTE: All reporting tables submitted were combined. These are available in one unique spreadsheet named **Summary_Activities_2019**. The file is available to download from <https://www.wmo-sat.info/vlab/coe-reports/>

#8

COMPLETE

Collector: Web Link CoE 2019 (Web Link)
Started: Thursday, December 26, 2019 2:48:11 AM
Last Modified: Monday, December 30, 2019 8:42:20 AM
Time Spent: Over a day
IP Address: 23.3.104.15

Page 1: About the Centre of Excellence

Q1 Please select your Centre of Excellence (CoE) from the list below. **China - Nanjing**

Q2 Does the CoE have a webpage dedicated to explain its involvement and support to VLab? **No**

Page 2

Q3 Please provide the URL to access the webpage **Respondent skipped this question**

Q4 What is the profile of the people supporting training activities in the CoE? **Training Manager,
Full time trainer,
Part time trainer,
Researcher,
Forecaster,
University lecturers**

Q5 Please use the space below to provide any additional comments regarding Question 4. Comments could include number of staff, proportion of support received from different institutions supporting the CoE or anything else regarding the support to plan and offer training in the CoE. **Respondent skipped this question**

Q6 Are regular opportunities offered to trainers in your CoE, to further develop their skills on "planning, designing and facilitating training"? **Yes**

Page 3

Q7 Please comment on the sort of training provided to trainers and the frequency.

Further skill development opportunities include WMO online courses, and various meetings and conferences with colleagues from our peers in China. These exchanges turned out to be very constructive and offer great supports as we rise to new challenges.

Q8 Please comment if there is a need for this sort of training (training of trainers) in the CoE and if so, what are the difficulties to provide it.

Some capacity restrictions may prevent the training from being effectively implemented.

Q9 Does the CoE have representation in a regional Coordination Group for Satellite Data Requirements (SDR)?

I am not aware of SDR Groups in the region. Please send me information.

Q10 What were the major achievements of the CoE during this reporting period?

In 2019, we conducted 15 training events related to meteorology and received 286 participants. Those events covered a wide variety of areas from climate changes, climate information service, meteorological forecasts, use of satellite data and RS technology applications, to disaster reduction, technology transfer and aeronautical meteorological forecasting. Topics of our courses were more specific and more target needs-aware in 2019, with those bilateral events in particular.

Q11 What were the main difficulties of your CoE during this reporting period?

At present, the organizational capacity limitations have imposed challenges in both the routine and sustainable development.

Q12 Please, provide a statement describing a situation where an activity organised by the CoE resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

In 2019, CoE-Nanjing actively offered support through introducing new generation of meteorological satellites as topics of lectures to our trainees and conducting high-quality training activities using latest educational tools and methods.

Page 4: About Training

Q13 How does the CoE investigate its regional training needs?

Training needs are pinpointed through trainee survey and consultation in combination with educational and training priorities with WMO and NMHSs.

Q14 What is the main audience addressed by the training the CoE provides? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

Forecasters, meteorologists, staff officers, researchers, lecturers, disaster managers, rescuers, etc. We serve trainees of a wide variety of affiliations.

Q15 Is any kind of Learning Management System used by your CoE to conduct training activities?

Learning Management System is not used

Q16 Is any kind of Online Conferencing System used by your CoE to conduct training activities?

Other (please specify):
Wechat

Q17 Are the training events organised by the CoE advertised in the online Training Calendar used by VLab?

No

Page 5

Q18 Please use this space to provide comments on the reasons the CoE does not advertise training events in the VLab online calendar.

For project application and approval processes, our programs use WMO ETRP and circular letters for their advertisement. Some of our programs are sponsored by Chinese Government and only accept invited attendees.

Q19 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

CoE Nanjing will be very glad to use the VLab online calendar when it applies.

Q20 Would your CoE be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes?

Yes

Page 6

Q21 Please indicate what training resources you would like to request permission to reuse.

Training resources including programs, experts, and teaching materials.

Q22 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

Training events with CoE Nanjing have involved topics more or less related to these areas, for example, the application of big data in disaster management, space weather, a series of topics related to the mechanism, adaptation and mitigation of climate change.

Page 7: About VLab collaboration

Q23 Is the CoE working closely together with its supporting Satellite Operator/Agency in VLab training activities?

Yes

Q24 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

Experts from Satellite Operators with China Meteorological Administration and meteorological services of different levels are invited to conduct training sessions with our events. Those sessions have been very informative to our trainees. Future collaborations can focus on more specific topics and working areas in satellite data application.

Q25 What sort of support would you like to receive from other CoEs, Supporting Satellite Operators/Agencies, WMO Space Programme, VLab Co-chairs and TSO?

Potential supports can be the sharing and exchanges of latest developments in satellite products and relevant technical regulations so as to promote the program design of CoE Nanjing.

Q26 What sort of support could you offer to other CoEs, Supporting Satellite Operators/Agencies and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

We will very very glad to work with other CoEs to co-organize training events or workshops on topics of common interests or other events of mutual supports and benefits.

Page 8: Training Resources and Training Events

Q27 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your CoE in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the CoE in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

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#17

COMPLETE

Collector: Web Link CoE 2019 (Web Link)
Started: Wednesday, January 22, 2020 1:55:37 PM
Last Modified: Thursday, January 23, 2020 3:51:17 PM
Time Spent: Over a day
IP Address: 173.223.52.63

Page 1: About the Centre of Excellence

Q1 Please select your Centre of Excellence (CoE) from the list below. **Niger**

Q2 Does the CoE have a webpage dedicated to explain its involvement and support to VLab? **No**

Page 2

Q3 Please provide the URL to access the webpage **Respondent skipped this question**

Q4 What is the profile of the people supporting training activities in the CoE? **Training Manager,
Full time trainer,
Part time trainer,
Forecaster,
Administrative staff,
University lecturers**

Q5 Please use the space below to provide any additional comments regarding Question 4. Comments could include number of staff, proportion of support received from different institutions supporting the CoE or anything else regarding the support to plan and offer training in the CoE. **Respondent skipped this question**

Q6 Are regular opportunities offered to trainers in your CoE, to further develop their skills on "planning, designing and facilitating training"? **Yes**

Page 3

Q7 Please comment on the sort of training provided to trainers and the frequency.

A yearly training plan is established every year based on the annual evaluation of trainers and on the expressed and identified training needs to improve their skills.

Q8 Please comment if there is a need for this sort of training (training of trainers) in the CoE and if so, what are the difficulties to provide it.

Most identified training needs are satisfied in the limit of the allocated budget.

Q9 Does the CoE have representation in a regional Coordination Group for Satellite Data Requirements (SDR)? **Yes**

Q10 What were the major achievements of the CoE during this reporting period?

Many training events were organized for both Forecasters and Meteorology Technicians (Aeronautical and Synoptic) in various fields including, satellite meteorology, forecasting and flights protection, aeronautical weather watch, synoptic observations, tropical meteorology.

Q11 What were the main difficulties of your CoE during this reporting period?

Internet connexion

Q12 Please, provide a statement describing a situation where an activity organised by the CoE resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

During our satellite training courses, trainees are introduced to online resources and information including OSCAR and SATURN to maximise their visibility. We have also supported, through exchange of expertise, other training events organized in other countries (e.g.: Tunisia).

Page 4: About Training

Q13 How does the CoE investigate its regional training needs?

Surveys made during training events or needs expressed by ASECNA and NMHSs

Q14 What is the main audience addressed by the training the CoE provides? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

Forecasters, Aeronautical Meteorological Observers, other Meteorological Observers.

Q15 Is any kind of Learning Management System used by your CoE to conduct training activities? **Other (please specify):**
EUMETSAT Online training platform is used in case of co-organised blended learning.

Q16 Is any kind of Online Conferencing System used by your CoE to conduct training activities? **Other (please specify):**
These are used mainly for meetings

Q17 Are the training events organised by the CoE advertised in the online Training Calendar used by VLab? **Yes**

Page 5

Q18 Please use this space to provide comments on the reasons the CoE does not advertise training events in the VLab online calendar. **Respondent skipped this question**

Q19 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar. **Respondent skipped this question**

Q20 Would your CoE be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes? **Yes**

Page 6

Q21 Please indicate what training resources you would like to request permission to reuse.

Interpretation of Third Generation satellite imagery and products.

Q22 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

We have not yet started offering training on these themes

Page 7: About VLab collaboration

Q23 Is the CoE working closely together with its supporting Satellite Operator/Agency in VLab training activities? **Yes**

Q24 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

We carry out training in collaboration and also assist EUMETSAT in training satellite meteorology in other RA-1 Members. We also work together in developing online training resources in the framework of ASMET.

Q25 What sort of support would you like to receive from other CoEs, Supporting Satellite Operators/Agencies, WMO Space Programme, VLab Co-chairs and TSO?

Exchange of expertise with other CoEs during training events.

Q26 What sort of support could you offer to other CoEs, Supporting Satellite Operators/Agencies and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

Exchange of expertise through the organisation of joint training events

Page 8: Training Resources and Training Events

Q27 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your CoE in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the CoE in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

NOTE: All reporting tables submitted were combined. These are available in one unique spreadsheet named Summary_Activities_2019. The file is available to download from <https://www.wmo-sat.info/vlab/coe-reports/>

#21

COMPLETE

Collector: Web Link CoE 2019 (Web Link)
Started: Tuesday, January 07, 2020 4:33:39 AM
Last Modified: Tuesday, February 11, 2020 10:16:54 AM
Time Spent: Over a month
IP Address: 63.243.245.199

Page 1: About the Centre of Excellence

Q1 Please select your Centre of Excellence (CoE) from the list below. **Oman**

Q2 Does the CoE have a webpage dedicated to explain its involvement and support to VLab? **Yes**

Page 2

Q3 Please provide the URL to access the webpage

<http://metstudy.met.gov.om/moodle/>

Q4 What is the profile of the people supporting training activities in the CoE? **Researcher, Forecaster**

Q5 Please use the space below to provide any additional comments regarding Question 4. Comments could include number of staff, proportion of support received from different institutions supporting the CoE or anything else regarding the support to plan and offer training in the CoE.

6

Q6 Are regular opportunities offered to trainers in your CoE, to further develop their skills on "planning, designing and facilitating training"? **No**

Page 3

Q7 Please comment on the sort of training provided to trainers and the frequency. **Respondent skipped this question**

Q8 Please comment if there is a need for this sort of training (training of trainers) in the CoE and if so, what are the difficulties to provide it.

No

Q9 Does the CoE have representation in a regional Coordination Group for Satellite Data Requirements (SDR)?

I am not aware of SDR Groups in the region. Please send me information.

Q10 What were the major achievements of the CoE during this reporting period?

The Annual Satellite Application Course (Marine Applications)

Q11 What were the main difficulties of your CoE during this reporting period?

The lack of staff in charge of the COE center work

Q12 Please, provide a statement describing a situation where an activity organised by the CoE resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

Center of Excellence for Satellite Application -Muscat continued with the organization of courses and workshops in cooperation with the EUMETSAT for Middle East countries and Indian Ocean Countries. These included regular classroom courses, online courses and distance lectures. In fact, the number of events is increasing, including the online and distance learning events. During the period (2016-2019), the annual satellite application course covered three main topics on satellite applications for convection, tropical cyclone monitoring, subtropical weather and it will be in the field of marine application in 2020. These courses have a great value through experts' participation from different countries. The last two events introduced the new generation of satellites, with new data types and products. In addition, in cooperation with WMO, the COE-Muscat held the training workshop on OSCAR/SURFACE for West Asia in 2019

Page 4: About Training

Q13 How does the CoE investigate its regional training needs?

Through covered different topics on the field of satellite applications

Q14 What is the main audience addressed by the training the CoE provides? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

Forecasters, meteorologist and researchers from Middle East and Indian Ocean Countries

Q15 Is any kind of Learning Management System used by your CoE to conduct training activities? **Moodle**

Q16 Is any kind of Online Conferencing System used by your CoE to conduct training activities? Other (please specify):
Zoom

Q17 Are the training events organised by the CoE advertised in the online Training Calendar used by VLab? **No**

Page 5

Q18 Please use this space to provide comments on the reasons the CoE does not advertise training events in the VLab online calendar.

Required password to advertise in the Vlab online calendar

Q19 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

-

Q20 Would your CoE be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes? **Yes**

Page 6

Q21 Please indicate what training resources you would like to request permission to reuse.

-

Q22 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

The OSCAR/SURFACE Training workshop FOR WEST ASIA/2019 WMO/ESCAP Workshop on Impact-Based Forecasting and Warning Services (IBFWS) for the Member countries of the Tropical Cyclones' Pane will be held in March 2020

Page 7: About VLab collaboration

Q23 Is the CoE working closely together with its supporting Satellite Operator/Agency in VLab training activities? **Yes**

Q24 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

1. Support specialized courses in field of Satellite Products. 2. Provide oppertunities to participate Participation the Field of Satellite Researches

Q25 What sort of support would you like to receive from other CoEs, Supporting Satellite Operators/Agencies, WMO Space Programme, VLab Co-chairs and TSO?

1. Exchange Training Resources. 2. Benefiting from their experience in distance and online training. 3. Provide training for the COE staff

Q26 What sort of support could you offer to other CoEs, Supporting Satellite Operators/Agencies and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

Host any regional training courses or workshops in collaboration with WMO and other COE's.

Page 8: Training Resources and Training Events

Q27 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your CoE in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the CoE in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

NOTE: All reporting tables submitted were combined. These are available in one unique spreadsheet named Summary_Activities_2019. The file is available to download from <https://www.wmo-sat.info/vlab/coe-reports/>

#5

COMPLETE

Collector: Web Link CoE 2019 (Web Link)
Started: Wednesday, December 11, 2019 2:59:36 PM
Last Modified: Wednesday, December 11, 2019 4:07:25 PM
Time Spent: 01:07:49
IP Address: 2.17.39.182

Page 1: About the Centre of Excellence

Q1 Please select your Centre of Excellence (CoE) from the list below. **Morocco**

Q2 Does the CoE have a webpage dedicated to explain its involvement and support to VLab? **No**

Page 2

Q3 Please provide the URL to access the webpage **Respondent skipped this question**

Q4 What is the profile of the people supporting training activities in the CoE? **Part time trainer**, **Researcher**

Q5 Please use the space below to provide any additional comments regarding Question 4. Comments could include number of staff, proportion of support received from different institutions supporting the CoE or anything else regarding the support to plan and offer training in the CoE. **Respondent skipped this question**

Q6 Are regular opportunities offered to trainers in your CoE, to further develop their skills on "planning, designing and facilitating training"? **Yes**

Page 3

Q7 Please comment on the sort of training provided to trainers and the frequency.

Indeed, opportunities are offered by WMO regarding how to develop trainers' skills on planning, designing and facilitating training. However, we would like this training to be maintained and strengthened in order to reach a larger number, and that it be in French.

Q8 Please comment if there is a need for this sort of training (training of trainers) in the CoE and if so, what are the difficulties to provide it.

We want our trainers to provide training on the new MTG and EPS-SG satellite technology

Q9 Does the CoE have representation in a regional Coordination Group for Satellite Data Requirements (SDR)?

I am not aware of SDR Groups in the region. Please send me information.

Q10 What were the major achievements of the CoE during this reporting period?

Organizing conjointly with EUMETSAT, for French speaking forecasters and satellite instructors: • A classroom marine forecasting course in November (from 25 to 29) 2019. • Working on ASMET12 for the topic "convection of tropical origin and dynamic origin"

Q11 What were the main difficulties of your CoE during this reporting period?

Lack of qualified human resources dedicated to CoE activities.

Q12 Please, provide a statement describing a situation where an activity organised by the CoE resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

Make available training courses and material in WMO official languages other than English (French) and encourage evaluation of the effectiveness of the training for the use of satellite data and products and its long term benefits. Encouraging the availability of more training material in WMO official languages other than English;

Page 4: About Training

Q13 How does the CoE investigate its regional training needs?

Through : • RA-I Dissemination Expert Group (RAIDEG) reports regarding the identification of new training requirements and user needs. • Surveys conducted by WMO and EUMETSAT. • Contacts between experts and forecasters at international meetings or during exchange of visits between experts from the CoE of Casablanca and other Satellite experts/forecasters from African countries.

Q14 What is the main audience addressed by the training the CoE provides? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

Researchers, Forecasters and Satellite instructors

Q15 Is any kind of Learning Management System used by your CoE to conduce training activities? **Moodle**

Q16 Is any kind of Online Conferencing System used by your CoE to conduce training activities? **Online Conferencing System is not used**

Q17 Are the training events organised by the CoE advertised in the online Training Calendar used by VLab? **Yes**

Q18 Please use this space to provide comments on the reasons the CoE does not advertise training events in the VLab online calendar. **Respondent skipped this question**

Q19 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

no comments, I can well follow the training events of all CoE through the VLab online calendar.

Q20 Would your CoE be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes? **Yes**

Page 6

Q21 Please indicate what training resources you would like to request permission to reuse.

I believe there are interesting training resources. Actually, I need to check for available materials that are designed by other satellite operators.

Q22 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

no action has been taken on this topic so far

Page 7: About VLab collaboration

Q23 Is the CoE working closely together with its supporting Satellite Operator/Agency in VLab training activities? **Yes**

Q24 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

EVERY international training activity of the CoE of Morocco is organized conjointly and closely with EUMETSAT. EUMETSAT gives a valuable support to the CoE of Casablanca (financial support, experts, ...).

Q25 What sort of support would you like to receive from other CoEs, Supporting Satellite Operators/Agencies, WMO Space Programme, VLab Co-chairs and TSO?

Financial support to organize face-to-face courses, especially for French speaking meteorologists/forecasters. Train our trainers in some specific satellite applications.

Q26 What sort of support could you offer to other CoEs, Supporting Satellite Operators/Agencies and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer. - Our trainers/experts could participate in other CoEs training activities. - Our CoE could organise conjointly with other CoEs training events in a particular subject, e.g. on how to integrate Satellite and NWP data in operational forecasting. - Our experts can contribute to the translation of existing modules from English to French.

Page 8: Training Resources and Training Events

Q27 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your CoE in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the CoE in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

NOTE: All reporting tables submitted were combined. These are available in one unique spreadsheet named Summary_Activities_2019. The file is available to download from <https://www.wmo-sat.info/vlab/coe-reports/>

#7

COMPLETE

Collector: Web Link CoE 2019 (Web Link)
Started: Monday, December 30, 2019 1:22:07 AM
Last Modified: Monday, December 30, 2019 4:52:48 AM
Time Spent: 03:30:40
IP Address: 198.172.88.195

Page 1: About the Centre of Excellence

Q1 Please select your Centre of Excellence (CoE) from the list below. **Republic of Korea**

Q2 Does the CoE have a webpage dedicated to explain its involvement and support to VLab? **Yes**

Page 2

Q3 Please provide the URL to access the webpage

<http://nmisc.kma.go.kr/enhome/html/base/cmm/selectPage.do?page=activities.VLabCoEKorea.VLabCoE-KoreaMain>

Q4 What is the profile of the people supporting training activities in the CoE? **Researcher,
Forecaster,
University lecturers**

Q5 Please use the space below to provide any additional comments regarding Question 4. Comments could include number of staff, proportion of support received from different institutions supporting the CoE or anything else regarding the support to plan and offer training in the CoE.

Main trainers for the training course of KMA forecasters: 2~3 researchers in CoE-Korea and 1~2 forecasters in KMA

Q6 Are regular opportunities offered to trainers in your CoE, to further develop their skills on "planning, designing and facilitating training"? **Yes**

Page 3

Q7 Please comment on the sort of training provided to trainers and the frequency.

Human Resource Development Institute in KMA host 2days' training course every year for the KMA trainers. At that time specialized lectures are invited and instructed the effective teaching

Q8 Please comment if there is a need for this sort of training (training of trainers) in the CoE and if so, what are the difficulties to provide it.

No

Q9 Does the CoE have representation in a regional Coordination Group for Satellite Data Requirements (SDR)? **Yes**

Q10 What were the major achievements of the CoE during this reporting period?

1. Host RFG online weather discussion 3 times jointly with CoE-Australia, 2. Contribute to the 2 days' training events of AOMSUC-10 by demonstrating KMA's New User Customized Imagery Processing Tool for Geo-Komsat-2A satellite data and RGB composites for various weather condition.

Q11 What were the main difficulties of your CoE during this reporting period?

Absence of full time trainers and online conferencing system for the international users

Q12 Please, provide a statement describing a situation where an activity organised by the CoE resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

- Active support to the introduction of the new generation of satellites; - the creation and maintenance of the central library/repository for recorded RFG sessions and other online events.

Page 4: About Training

Q13 How does the CoE investigate its regional training needs?

Pre and Post on/offline survey

Q14 What is the main audience addressed by the training the CoE provides? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

Forecasters, Meteorologists, technician at the working level

Q15 Is any kind of Learning Management System used by your CoE to conduct training activities? **Other (please specify):**
PPT slides with blackboard if need, NMSC's own satellite data analysis system for the practice

Q16 Is any kind of Online Conferencing System used by your CoE to conduct training activities? **GoTo (Webinar, Meeting)**

Q17 Are the training events organised by the CoE advertised in the online Training Calendar used by VLab? **No**

Page 5

Q18 Please use this space to provide comments on the reasons the CoE does not advertise training events in the VLab online calendar.

The international training courses of online/offline classroom are advertised via KMA webpage. But, it's a little difficult to advertise the training events in the VLab calendar because there is no full time trainer in NMSC.

Q19 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

Respondent skipped this question

Q20 Would your CoE be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes?

Yes

Page 6

Q21 Please indicate what training resources you would like to request permission to reuse.

1. Training materials(ppt and video) hosted by EUMETSAT training team and EUMeTrain TSO

Q22 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

We have also faced the application of satellite for Big data and climate. But, we are at an early stage for them. We need more experience.

Page 7: About VLab collaboration

Q23 Is the CoE working closely together with its supporting Satellite Operator/Agency in VLab training activities?

Yes

Q24 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

Need close communication between users and developers. CoE should request their needs such as new RGBs, new products and new analysis system for the new GEO Satellites and Satellite operator should response quickly.

Q25 What sort of support would you like to receive from other CoEs, Supporting Satellite Operators/Agencies, WMO Space Programme, VLab Co-chairs and TSO?

Sharing training resources including materials. ex) Exchange lectures each other

Q26 What sort of support could you offer to other CoEs, Supporting Satellite Operators/Agencies and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

Collaboration in RFG session organized by other CoEs, Cowork for the developing new guidance/guideline for the effective use of new satellite data, Contribute lectures or practice to the training events such as AOMSUC

Page 8: Training Resources and Training Events

Q27 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your CoE in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the CoE in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

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#22

COMPLETE

Collector: Web Link CoE 2019 (Web Link)
Started: Saturday, February 29, 2020 10:22:43 AM
Last Modified: Saturday, February 29, 2020 11:09:34 AM
Time Spent: 00:46:50
IP Address: 23.1.237.23

Page 1: About the Centre of Excellence

Q1 Please select your Centre of Excellence (CoE) from the list below. **Russian Federation**

Q2 Does the CoE have a webpage dedicated to explain its involvement and support to VLab? **Yes**

Page 2

Q3 Please provide the URL to access the webpage

<http://meteovlab.meteorf.ru/>

Q4 What is the profile of the people supporting training activities in the CoE? **Training Manager,
 Full time trainer,
 Part time trainer,
 Researcher,
 Administrative staff,
 University lecturers**

Q5 Please use the space below to provide any additional comments regarding Question 4. Comments could include number of staff, proportion of support received from different institutions supporting the CoE or anything else regarding the support to plan and offer training in the CoE.

The total number of ATI faculty members is 122 people, of which there are 38 full-time employees

Q6 Are regular opportunities offered to trainers in your CoE, to further develop their skills on "planning, designing and facilitating training"? **Yes**

Page 3

Q7 Please comment on the sort of training provided to trainers and the frequency.

Online WMO TtT course was offered in 2019 and planned for 2020

Q8 Please comment if there is a need for this sort of training (training of trainers) in the CoE and if so, what are the difficulties to provide it.

WMO supported modernization of the online TtT course in 2019; no external support is needed for 2020 course

Q9 Does the CoE have representation in a regional Coordination Group for Satellite Data Requirements (SDR)?

I am not aware of SDR Groups in the region. Please send me information.

Q10 What were the major achievements of the CoE during this reporting period?

Active collaboration with the satellite operator resulted in joint training course attended by 84 CIS trainees; opening up PhD program and community outreach center at ATI

Q11 What were the main difficulties of your CoE during this reporting period?

Resource constraints (time, staff, money)

Q12 Please, provide a statement describing a situation where an activity organised by the CoE resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

The course in June 2019 helped promoting the benefits of using new satellite-based products; community outreach center helps to engage with the next generation of young professionals in all fields related to meteorology

Page 4: About Training

Q13 How does the CoE investigate its regional training needs?

The procedure remains the same: once a year it sends inquiries to NWS branches for new courses and collects feedback

Q14 What is the main audience addressed by the training the CoE provides? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

NWS employees in Russia and CIS

Q15 Is any kind of Learning Management System used by your CoE to conduct training activities?

Other (please specify):
Proprietary LMS and Moodle

Q16 Is any kind of Online Conferencing System used by your CoE to conduct training activities?

Other (please specify):
Proprietary online conferencing tool

Q17 Are the training events organised by the CoE advertised in the online Training Calendar used by VLab?

No

Page 5

Q18 Please use this space to provide comments on the reasons the CoE does not advertise training events in the VLab online calendar.

CoE advertises some of its training events of international coverage, but this option was not offered in previous question

Q19 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

some concern with the use of three different calendars at the moment (VLab, GC and CEOS)

Q20 Would your CoE be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes? **Yes**

Page 6

Q21 Please indicate what training resources you would like to request permission to reuse.

We've been doing it on ad-hoc basis, whenever resources for translation are available

Q22 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

Climate Services and Space Weather are covered by the training plan, no demand has been demonstrated so far in big data issues for meteorological applications

Page 7: About VLab collaboration

Q23 Is the CoE working closely together with its supporting Satellite Operator/Agency in VLab training activities? **Yes**

Q24 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

Current status of collaboration is very efficient, we are satisfied with the level achieved last year

Q25 What sort of support would you like to receive from other CoEs, Supporting Satellite Operators/Agencies, WMO Space Programme, VLab Co-chairs and TSO?

Exchange of information, new ideas, joint training events, joint application for funds

Q26 What sort of support could you offer to other CoEs, Supporting Satellite Operators/Agencies and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

organise joint training events that meet the needs of NWSs in CIS countries

Page 8: Training Resources and Training Events

Q27 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your CoE in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the CoE in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

NOTE: All reporting tables submitted were combined. These are available in one unique spreadsheet named Summary_Activities_2019. The file is available to download from <https://www.wmo-sat.info/vlab/coe-reports/>

#4

COMPLETE

Collector: Web Link CoE 2019 (Web Link)
Started: Wednesday, December 11, 2019 8:19:14 AM
Last Modified: Wednesday, December 11, 2019 8:36:40 AM
Time Spent: 00:17:26
IP Address: 23.52.67.23

Page 1: About the Centre of Excellence

Q1 Please select your Centre of Excellence (CoE) from the list below. **South Africa**

Q2 Does the CoE have a webpage dedicated to explain its involvement and support to VLab? **No**

Page 2

Q3 Please provide the URL to access the webpage **Respondent skipped this question**

Q4 What is the profile of the people supporting training activities in the CoE? **Training Manager** ,
Full time trainer ,
Part time trainer ,
Researcher,
Forecaster,
Administrative staff

Q5 Please use the space below to provide any additional comments regarding Question 4. Comments could include number of staff, proportion of support received from different institutions supporting the CoE or anything else regarding the support to plan and offer training in the CoE.

6 permanent trainers, 3 forecasters who support and 3 researchers who support training activities

Q6 Are regular opportunities offered to trainers in your CoE, to further develop their skills on "planning, designing and facilitating training"? **No**

Page 3

Q7 Please comment on the sort of training provided to trainers and the frequency. **Respondent skipped this question**

VLab Report of Activities for CoEs - Dec 2018 to Nov 2019

Q8 Please comment if there is a need for this sort of training (training of trainers) in the CoE and if so, what are the difficulties to provide it.

Yes. Financial and human resource is limited

Q9 Does the CoE have representation in a regional Coordination Group for Satellite Data Requirements (SDR)? **Yes**

Q10 What were the major achievements of the CoE during this reporting period?

Retaining WMO RTC status, Publishing ASMET 11 and starting ASMET 12

Q11 What were the main difficulties of your CoE during this reporting period?

Human resources are limited

Q12 Please, provide a statement describing a situation where an activity organised by the CoE resulted in impact related to one or more aspects in the VLab Strategy document. The VLab Strategy 2015-2019 is available at <https://www.wmo-sat.info/vlab/governance-documents/>

SAWS RTC had used IMTR (Kenya) to moderate satellite exams, in order to improve the quality of the courses being offered at SAWS. Also, SAWS hosted the first MTG introductory lecture in Africa, as part of the ESAC course in November 2019.

Page 4: About Training

Q13 How does the CoE investigate its regional training needs?

Needs analysis survey is distributed both Nationally and regionally. Course evaluations run after ESAC training include further training needs. .

Q14 What is the main audience addressed by the training the CoE provides? Please mention the profile of the main audience (e.g. forecasters, university students, meteorologists, researchers, lecturers, emergency service providers, etc.)

University students, Forecasting students, operational forecasters, Meteorologists, commercial clients, media broadcasters, researchers

Q15 Is any kind of Learning Management System used by your CoE to conduct training activities? **Moodle**

Q16 Is any kind of Online Conferencing System used by your CoE to conduct training activities? **Cisco Webex**

Q17 Are the training events organised by the CoE advertised in the online Training Calendar used by VLab? **Yes**

Page 5

Q18 Please use this space to provide comments on the reasons the CoE does not advertise training events in the VLab online calendar. **Respondent skipped this question**

Q19 Please use this space to provide any comments you may wish to make regarding the use of the VLab online calendar.

No comment

Q20 Would your CoE be interested in adapting and reusing training resources designed by other satellite operators, CoEs or training programmes? **Yes**

Page 6

Q21 Please indicate what training resources you would like to request permission to reuse.

MTG related material, Scatterometer, Altimeter and marine product related material

Q22 Big data, Climate and Space Weather are referenced in the new VLab Strategy for 2020-2024 (see document at <https://www.wmo-sat.info/vlab/governance-documents/>) Please outline the challenges you have been facing when offering training on these themes in your Region. If you have undertaken activities that relate to these strategic themes, or are planning to, please mention them here.

We do not train any of the above topics, besides a bi-annual climate course hosted by Eumetsat.

Page 7: About VLab collaboration

Q23 Is the CoE working closely together with its supporting Satellite Operator/Agency in VLab training activities? **Yes**

Q24 Please comment on the answer above and, if applicable, suggest ways to improve collaboration.

SAWS and eumetsat have a good working relationship and SAWS receives support from Eumetsat in any training related activities required

Q25 What sort of support would you like to receive from other CoEs, Supporting Satellite Operators/Agencies, WMO Space Programme, VLab Co-chairs and TSO?

Guest lecturing, online briefings/lectures

Q26 What sort of support could you offer to other CoEs, Supporting Satellite Operators/Agencies and WMO Space Programme? This could be any kind of support. For example: collaborate in RFG sessions organised by other CoEs, organise joint training events in a particular subject, or any other support/collaboration you think the CoE could offer.

help with online sessions, be a guest lecturer, be part of joint training events, provide material for case studies

Page 8: Training Resources and Training Events

Q27 Prepare and upload a document (DOC or DOCX format) containing three tables as described below. The template for the required tables can be downloaded from https://www.dropbox.com/s/a1wn66sjeilucwd/Template_Tables_2019.docx?dl=0 If you have any problems downloading the template, please contact Lu Veeck at luveeck@gmail.com to obtain the file. Table 1 - New training resources developed from December 2018 to November 2019 - Table 1 should contain a list of all training resources developed by your CoE in this period. The information required in this table is indicated in the template mentioned above. Table 2 - Training Events organised from December 2018 to November 2019 - Table containing a list of all training events you organised during this period. If you have submitted your events to the Online Training Calendar, you can download all the information needed from there. Just login at <https://usc.tools.eumetsat.int/training/public/Login.jsp> and perform a search using the name of your organisation and the period of this report. You will be able to export the data as CSV/Excel spreadsheet, and then paste the information requested for this table (please use the template provided). NOTE: If the organisation conducted other training events considered as part of their VLab activities, that for some reason were not submitted to the Online Training Calendar, then please remember to add the information manually. Table 3 - Training Events planned for the period December 2019 to November 2020: Table 3 should contain a list of training events planned to be offered by the CoE in the next 12 months (from December 2019 to November 2020). The information required in this table is indicated in the template. If some of the events' information are not confirmed yet, please use the term TBA (To be announced).

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