



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

ACTIVITY REPORT

Period: September 2011 to August 2012

Centre of Excellence: Australia

GENERAL INFORMATION ABOUT THE CENTRE OF EXCELLENCE (CoE) AND THE DEVELOPMENT OF VLAB TRAINING ACTIVITIES

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

- Launch of the new Australia CoE VLab web page (30 August 2012)
- Hosting Aviation Week 2012 (23-27 July 2012)
- Forwarded resources (The “Day Convective RGB applied to studying a Sumatra Squall line, using HYDRA and MODIS data) to Hendrik Vershuur (EUMETSAT) for the Satellite Training Event in Indonesia (21-25 March 2012). These resources were also forwarded to the National Environment Agency, Singapore.
- Hosting the VIIRS Workshop (13-15 February 2012)

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

Financial limitations:

Training in the Bureau of Meteorology operates within a strict budget. Satellite activities must compete with other training priorities for funds. The financial constraint is especially severe for overseas travel. This will limit liaison between Region V members. For example, it was not possible for Australia CoE members to directly assist Hendrik Vershuur in classroom activities during the Satellite Training Event in Indonesia (21-25 March 2012). Due to a slow internet connection, it was not possible to forward Australia CoE resources to the workshop in time.

Human resources:

Satellite activities must compete with other training priorities for staff time. A staff member (Bodo Zeschke) has been assigned to the satellite portfolio. However, Mr. Zeschke also has teaching and course coordination activities to perform within the Bureau of Meteorology Training Centre.

Other limitations:

Implementation of a new data-viewing and forecasting system within the Bureau of Meteorology and the associated Forecaster training over the next two years may restrict the time available to staff to provide training in satellite meteorology. For example, over the past few years we have not had the resources to conduct the Australia Pacific Satellite Applications Training Seminar (APSATS).

Who provides support in the production of your training materials (e.g. produced by own trainers, support from Satellite Operators, IT staff, University researchers and lecturers, etc)?

Over the period of the report, training material was produced by trainers and by other staff members within the Bureau of Meteorology, by support from Satellite Operator (JMA) during Aviation Week, by visiting researchers (Space Science and Engineering Centre at the University of Wisconsin) during the VIIRS Workshop .

Bureau IT staff and other support staff assisted in generating training video's from the recorded Webinar sessions during Aviation Week, VIIRS workshop etc.

Is any kind of Learning Management System (e.g. Moodle, Blackboard, etc) used by your CoE to conduct training activities?

Moodle was used to permit access of resources and to facilitate communication amongst local and remote attendees etc. during Aviation Week.

Is any kind of Online Conferencing System (e.g. Saba Centra, Blackboard Collaborate, GoToWebinar, etc) used by your CoE to conduct training activities?

GoToWebinar was used to successfully conduct the Aviation Week and the VIIRS workshop.

What kind of training is provided to the trainers of your CoE and at what frequency?

Training staff are placed on a nationally accredited course in Training and Assessment designed and widely taken by those delivering training in the corporate and vocational areas. Professional Development days are held twice each year. These usually cover such topics as learning styles and training approaches. Individual training is provided in relevant software (e.g. Dreamweaver, Webinar, Moodle) as required. Staff is supported to attend relevant education-oriented conferences (e.g. that of the Australasian Society for Computers in Learning in Tertiary Education, CALMet). From time to time particular staff members participate in relevant distance learning courses.

Can you suggest ways for the VLab (including CoEs, Supporting Satellite Agencies, Partner Programmes, WMO Space Programme, VLab Co-chairs and TSO) to provide better support to your CoE?

Ongoing assistance in Region V online presentations (Aviation Week) by staff from other CoE's (eg. South Africa Weather Service).

Leverage RGB resources and expertise from Eumetsat to assist in developing RGB products suitable for forecasting over Australian and adjacent Region V countries.

Eumetsat RGB case studies to assist in the training of forecasters in Region V. SatManu examples as guidance for setting up Southern Hemisphere case studies.

Please use the table below to list any training materials you may have developed over this reporting period:

Title of training material	Type of resource	Availability of resource	Submitted to ESRC
Aviation Week 2012 recordings	Online presentations	Melbourne CoE VLab web page	No
VIIRS Workshop recordings	Online presentations	Melbourne CoE VLab web page	No
Case study (The “Day Convective RGB applied to studying a Sumatra Squall line, using HYDRA and MODIS data)	Case study	To be made available on Melbourne CoE VLab web page in the near future	No

Is your CoE working closely together with the CoE’s sponsoring Satellite Operator/Agency in VLab training activities? Can you suggest ways to improve this collaboration?

Yes, in the following ways:

- JMA (our sponsoring satellite operator) has been contributing to our yearly Aviation Week Event Week with online presentations such as “Future Satellite Systems” (Toshiyuki Kurino), “Volcanic Ash Detection” (Satoshi Harada), “Rapid Scan Observation from Space and its Application” (Yasushi Izumikawa).
- Bodo Zeschke (Australian VLab point of contact) has been conducting regular communication with JMA VLab point of contact Keiko Yamamoto on matters pertaining to VLab reports, permission to use JMA resources to assist in training, feedback pertaining to updating of Melbourne CoE VLab web page, exchanging meteorological information.
- Bodo Zeschke attended the JMA Meeting to “Discuss Opportunities for Future Cooperation” (DOFC), 1-2 March 2012 at 700 Collins Street Docklands. Discussion topics included future prospects on the data utilisation of Himawari 8/9 data by the Australian Bureau of Meteorology, information on Himawari 8/9 operation and expected products, data sharing issues.
- Bodo Zeschke is a member of the Himawari-8 Bureau Working Group, involved in cooperation and planning for the 2015 operation of the Himawari satellite with JMA staff. He is the Bureau of Meteorology Training Centre representative of this group.

Please use this space for additional remarks you may wish to make relating to the delivery of training by your CoE.

The instigation of the first Region V Regional Focus Group (RFG) meeting is now a priority. We are presently developing templates on our Visual Weather platform in preparation for this. Our aim is to host the first meeting before the end of this year. In order to gain further insights into hosting RFG meetings, Bodo Zeschke has been a regular attendee at the SAWS Regional Focus Group meetings during the reporting period. Furthermore, during the South African Regional Focus Group meeting of the 27 April 2012, Bodo Zeschke presented "Recent spring and summer weather over Australia, with some reference to South African weather and climate "

Please complete the table in the next page with information about the training events organised by your CoE, as part of VLab activities, during this reporting period.

Alternatively, you may export the information you have entered in the Online Calendar of Events to Excel and just add the post-event information needed (i.e. number of participants and Country of origin of participants). You can then copy and paste your own table to the last page of this report.

Date	Title	Location	WMO region	Host	Type	Language	Number of trainees	Country of origin of trainees
13-15 February 2012	VIIRS Workshop	Bureau of Meteorology Training Centre (BMTC) classroom and online	Region V	Melbourne VLab Centre of Excellence	Workshop	English	20 classroom attendees, 10-15 remote attendees	Australia, New Zealand, Japan
23-27 July 2012	Aviation Week	BMTC classroom and online	Region V	Melbourne VLab Centre of Excellence	Event Week	English	5 classroom attendees, 14-26 remote attendees	Argentina, Australia, Barbados, Bulgaria, Canada, China, England, France, India, New Zealand, Russia, Solomon Islands, South Africa, United States
January - March 2012	Basic Satellite Meteorology	BMTC classroom	Region V	Bureau of Meteorology	Course	English	13	10 Australia, 2 Royal Australian Navy, 1 Singapore
July - August 2012	Advanced Satellite Meteorology	BMTC classroom	Region V	Bureau of Meteorology	Course	English	13	10 Australia, 2 Royal Australian Navy, 1 Singapore