Eighth Virtual Laboratory Management Group Meeting

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Bridgetown, Barbados
Hosted by Caribbean Institute for Meteorology & Hydrology

DSA
Divisão de Satélites e Sistemas Ambientais

LABORATÓRIO VIRTUAL

VLab

Center of Excellence of Cachoeira Paulista, Brazil
Satellites and Environmental Systems Division (DSA)
Center for Weather Forecasting and Climate Research (CPTEC)
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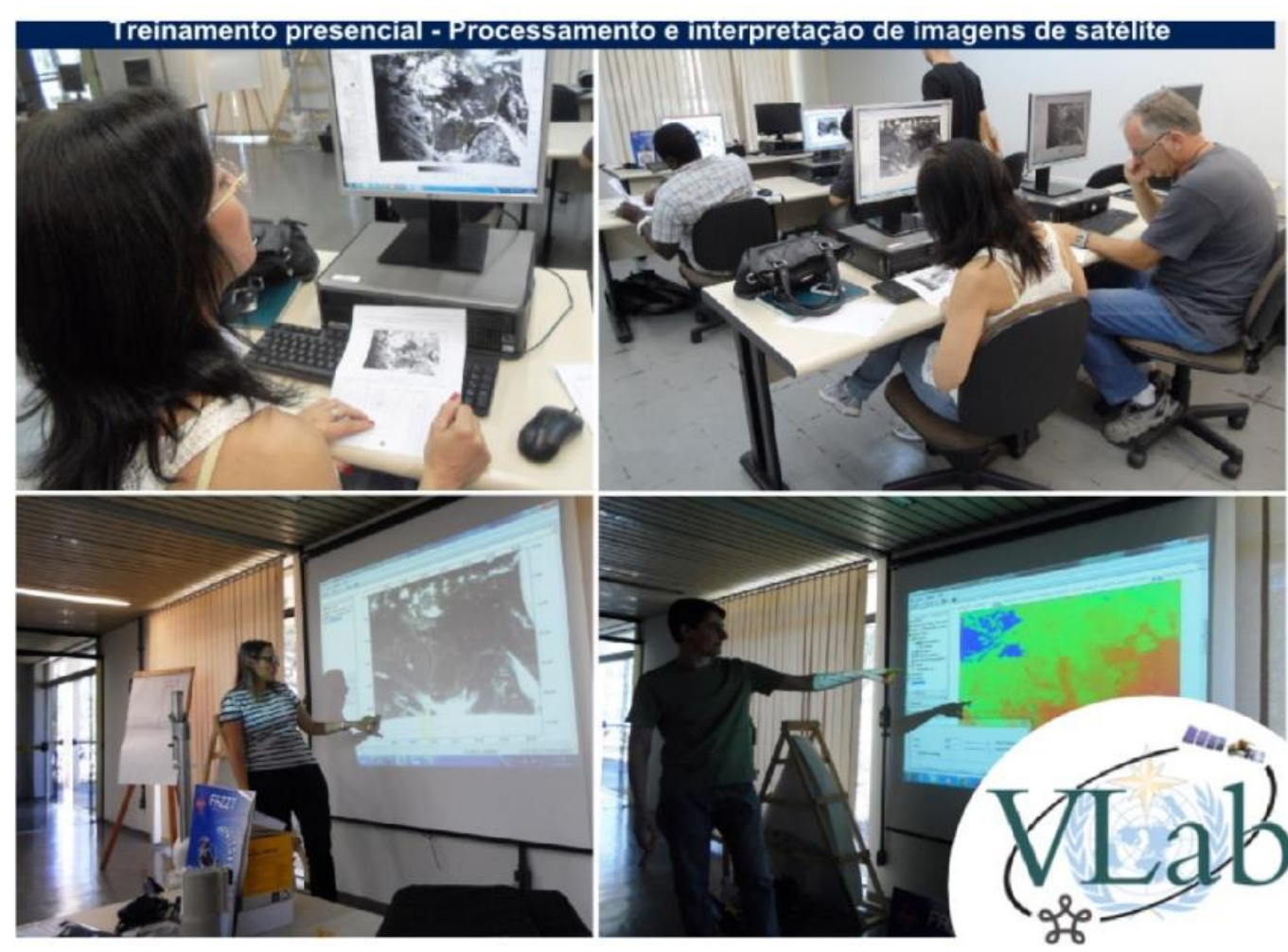Points of Contact: Natália Rudorff; Daniel Vila
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1. Main Achievments since 2014

1. Training course pack of the ILWIS software for visualization and processing of data and satellite images provided by the GEONETCast-Americas

Trainers: Diego Souza, Renato Galante Negri, Simone Sievert da Costa (DSA/CPTEC/INPE)

In 2014 a training program for the "ILWIS software for visualization and processing of data and satellite images provided by the GEONETCast-Americas", was prepared and implemented by the Brazilian CoE. In the first phase of the program practical exercises were elaborated and tested for graduate students of the São Paulo State University (UNESP, Rio Claro) and technicians of the IPEN (Institute for Energy and Nuclear Research). The students gave a positive feedback showing motivation for the use of the software and showed a high interest on the subject.

2. CBMET – "Satellite Meteorology: Theory and Applications"

Trainers: Daniel Vila, Renato Galante Negri, Simone Sievert da Costa (DSA/CPTEC/INPE)

Using Moodle online training and the ILWIS course pack the face to face course "Satellite Meteorology: Theory and Applications" was offered at the CBMET – National Congress of Meteorologists, 03-06 of November, 2014, Recife, PE, Brazil, with 6 h of training.

3. Meteorological Satellite: Image, Products and Applications

Trainers: Carla Barroso (IPMA, Portugal), Daniel Vila (CPTEC/INPE), Giulia Panegrossi (ISAC/CNR, Itália), Juan Ceballos (CPTEC, INPE), Leonardo Peres (UFRJ), Lia Amaral (CPTEC/INPE), Luiz Augusto Toledo Machado (CPTEC/INPE), Manoel Afonso Gan (CPTEC/INPE), Marcos Sanches (CCST/INPE), Renata Libonatti (UFRJ), Thiago Biscaro (CPTEC/INPE)

Organized by CPTEC/INPE (Cacilda Aravéquia, Diego Souza, Renato Galanti, Nelson Ferreira, Simone Sievert) together with EUMETSAT (José Prieto and Regina Hoefenmayer).

On 2015 the face to face course "Meteorological Satellite: Image, Products and Applications" was hosted by INPE at Cachoeira Paulista, Brazil, from 04 to 08 of May, providing 30h of training. The main aim was to train users in Brazil, neighboring countries in South America and from Portuguese speaking countries in Africa, to use meteorological satellites images and products focusing on the use of Meteosat Second Generation (MSG) images. The program covered weather forecasting from synoptic scale to nowcasting, and environmental applications, with theoretical classes and practical exercises.11 PDF presentations were available online through Moodle, as well as the material for the practical exercises.

The course had 34 participants from: Quiné-Bissau (1); Cabo Verde (1), Angola (1), Colombia (1), Peru (2), Paraguay (1), Uruguay (1) and Brazil (26), from different sectors (ex. civil defense, Protection Amazon Service, Brazilian and South America meteorological services, air security control). Two participants were funded by WMO and the others came by their own expenses. 63% were attending a course at INPE for the first time. The lectures that most call attention were those associated with practices. The course was evaluated as Very Good and Excellent. All participants would recommend the course to their colleagues.

4. Other participations of CoE Brazilian members in VLab activities

✓ Daniel Vila participated at the Real Time Monitoring of Global Precipitation from Space: New Technologies Applied to Heavy Rainfall Risk Reduction - WGCapD &WGDisasters - Distance Education Course - Webinar Series on Remote Sensing Technology for Disaster Management - Committee on Earth Observation Satellites (CEOS) - April/May 2015.

✓ Daniel Vila participated at the GOES-R: how to take advantage of the new generation of geostationary satellites in South and Central America - Next Generation of Satellites Event Week - Virtual Laboratory (VLab/WMO) - from 16 to 20 November 2015 (online)

✓ Diego Souza also participated at the WMO/NOAA Train the Trainer Workshop on Satellite Data Access, Application, and GEONETCast Americas, 25-26 April 2015, Greenbelt MD, USA

2. Major Challenges

The major challenges faced by the CoE-Brazil are related with several training projects related with satellite data dissemination (GeonetCAST- Americas) and the new generation of satellites (GOES-R). Face-to-face and online training should be delivered to region III and IV National Meteorological and Hydrological Services forecasters and we are working closely with WMO and NOAA to achieve this objective.

In terms of new pedagogical approaches, we need to move from a seminar-style approach to a more comprehensive learning process and we need to explore the most suitable way to evaluate the efficiency of that learning process, mainly in hands-on exercises (i.e., assignments) and basic knowledge of the training subject (i.e., quizzes). We have some experience with MOODLE but it should be improved for better results..

4. Main interests for Project Collaboration

Besides the collaboration we already have with other CoEs and Satellite Supporting Agencies we have special interest to start collaborating with the Argentinian CoE to organize web-seminars and online courses.
We would also like to have again a more active participation on the Regional Focus Group of South America, collaborating with the weather and climate discussions.

3. Future Plans

For the first semester of 2016 Diego Souza will be participating as a trainer at two courses organized by other CoEs: "Taller de Capacitación de GEONETCast-Americas", Mexico City, 04-06 May, 2016 and "AMERIGEOSS Week", Bogotá, 07-10 June, 2016. He prepared two course packs in Spanish: one for the GMT and another for the ILWIS software to visualize and process GEONETCast data.

A face to face course "Training for the SIGMACast Project" with be help at INPE, Cachoeira Paulista, from 20-23 June, 2016, organized by Luiz Augusto.

Starting on the second semester of 2016 we intend to incorporate 1 h monthly seminars given via Adobe connect (through RNP – Rede Nacional de Ensino e Pesquisa). This will be an effort to reach a greater range of public and identify the main interests within the topics given. For the most requested topic a face to face course should be organized and given by the end of the semester.
The seminars will be advertised on our institutional website, facebook page and email lists.

One or two courses on the use of GOES-R imagery shall also be organized and given between 2016 and 2017. One should be given at the Brazilian Symposium for Remote Sensing (SBSR), Santos Brazil, April, 2016..