JPSS User Readiness through Training: VISIT, SHyMet, WMO VLab, and a new Liaison

Bernadette Connell¹
J. Torres¹, S. Miller¹, D. Bikos¹, E. Szoke¹, S. Bachmeier², S. Lindstrom², A. Mostek³, B. Motta³, L. Veeck¹,⁴

¹ Cooperative Institute for Research in the Atmosphere
² Cooperative Institute for Meteorological Satellite Studies
³ NWS/OAA/CLO/Forecast Decision Training Division
⁴ WMO Virtual Lab for Education and Training in Satellite Meteorology

AMS 96 January 2016
Who are the users?

• National & International
  – Primary focus:
    • National Weather Service
  – Training is applicable to:
    • Academia
    • Media
    • General Public
NOAA National Weather Service - Users

122 Weather Forecast Offices

13 River Forecast Offices

22 Center Weather Service Units

6 NWS Regions + National Headquarters
What is the user level of understanding?

Knowledgeable
Capable
Skilled
Expert
What is the user level of understanding?

Knowledgeable
Capable
Skilled
Expert

What are the training challenges?
- Adapting and presenting information for all audiences.
- Encouraging participation
- Keeping it simple and short
VISIT
Virtual Institute for Satellite Integrated Training

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

SHyMet
Satellite Hydrology and Meteorology
VISIT
Virtual Institute for Satellite Integrated Training

SHyMet
Satellite Hydrology and Meteorology

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

2016 → 2017 Launch → 2017 and Beyond

Foundation → Application → Make it Stick → Continued Learning

- Basic Remote Sensing
- Characteristics of Satellites
- AVHRR vs JPSS
- Geo vs Polar
- Strengths & Weaknesses

2017 Launch
NWS Training Guidance

- **Foundation**
  - Forecast / warning process
  - Phenomena based
  - Baseline products
  - Service areas
  - 10-15 minute modules
  - Quick Guides in AWIPS

- **Application**

- **Make it Stick**

- **Continued Learning**

2016 → 2017 Launch → 2017 and Beyond
NWS Training Guidance

2016 → 2017 Launch → 2017 and Beyond

- Foundation
- Application
- Make it Stick
- Continued Learning

ONE SIZE TRAINING DOES NOT FIT ALL USERS!

• Simulations
• Demonstrated performance
• Repeat...practice
• Operations ↔ Research
• Peer-to-peer sharing
• Blogs
• Storm-of-the-month webinars
• Seasonal readiness
Virtual Institute for Satellite Integration Training
Launched in 1998

Mission: To accelerate the transfer of research results from atmospheric remote sensing into NWS operations

Method: Distance education techniques: teletraining and online modules

http://rammb.cira.colostate.edu/visit/
(Initial) Focus: stand-alone sessions

Recent TOPICS

• Satellite Meteorology
• Severe Weather
• Winter Weather
• Tropical
• Environmental Hazards
• Current and Future Satellites (includes training specific to JPSS and GOES-R)
Additional Focus

Monthly Virtual VISIT Satellite Chat

NWS VLab Help desk

http://rammb.cira.colostate.edu/visit/

VISIT

- VISIT Home
- Training Sessions
- Training Calendar
- Blog Sites
- VISIT Satellite Chat
- VISIT Satellite Help Desk
- The VISIT Program
- VISIT Contributors
- VISIT FAQ
- Links / Tutorials
- RAMSDIS Online
JPSS specific training

- VIIRS DNB NCC imagery in AWIPS
- VIIRS Imagery for Tropical Cyclone Forecasting
- NUCAPS Soundings in AWIPS
- VIIRS Imagery in AWIPS
COURSES dedicated to operational satellite meteorology

Intern / Forecaster / Severe Weather / Tropical

Liaison goal: JPSS Instruments, Products, and Operational Applications

http://rammb.cira.colostate.edu/shymet/
Best place to look for general and new satellite training:

NWS Training Portal
http://www.nws.noaa.gov/training

Forecast Decision Training Division (FDTD) in Boulder, Colorado
http://www.fdtb.noaa.gov/
New JPSS Liaison

Jorel Torres

- Assess user needs
- Develop and promote directed training
- Gather feedback
- Promote dialogue and exchanges between the researcher and forecaster.
International Activities coordinated with the WMO VLab

Designated Technical Support Officer: Luciane Veeck

Centers of Excellence
- Argentina (Buenos Aires and Cordoba)
- Australia (Melbourne)
- Barbados (Bridgetown)
- Brazil (Cachoeira Paulista)
- China (Beijing and Nanjing)
- Costa Rica (San Jose)
- Kenya (Nairobi)
- Morocco (Casablanca)
- Niger (Niamey)
- Oman (Muscat)
- Republic of South Korea (Jincheon)
- Russian Federation (Moscow and St. Petersburg)
- South Africa (Pretoria)
Monthly Regional Focus Group Discussions for the Americas and the Caribbean

WMO VLab RFG Session Participation
2004-2015

http://rammb.cira.colostate.edu/training/rmrtc/focusgroup.asp
# Calendar of Events

This calendar of events shows the upcoming Training events, workshops, conferences and online sessions organised by VLab CoEs and Vlab collaborators.

<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Location</th>
<th>Initiative</th>
<th>CoE involv.</th>
<th>Type</th>
<th>Language</th>
<th>Attendance</th>
<th>ContactLink</th>
</tr>
</thead>
<tbody>
<tr>
<td>18/01/2016</td>
<td>Introduction to ECMWF job scheduler: ecFlow</td>
<td>Reading</td>
<td>Other</td>
<td></td>
<td>Classroom course</td>
<td>English</td>
<td>Limited</td>
<td>Anna Ghelli</td>
</tr>
<tr>
<td>21/01/2016</td>
<td>RFG of Central and South America and the Caribbean - 16:00 UTC</td>
<td>Online</td>
<td>VLab</td>
<td>Argentina, Barbados, Brazil, Costa Rica</td>
<td>RFG</td>
<td>English,</td>
<td>Open</td>
<td>Bernice Connell</td>
</tr>
<tr>
<td>01/02/2016</td>
<td>Use and interpretation of ECMWF products (for trainers and training</td>
<td>Reading</td>
<td>Other</td>
<td></td>
<td>Classroom course</td>
<td>English</td>
<td>Limited</td>
<td>Anna Ghelli</td>
</tr>
<tr>
<td>05/02/2016</td>
<td>championships</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>08/02/2016</td>
<td>Use and interpretation of ECMWF products</td>
<td>Reading</td>
<td>Other</td>
<td></td>
<td>Classroom course</td>
<td>English</td>
<td>Limited</td>
<td>Anna Ghelli</td>
</tr>
<tr>
<td>12/02/2016</td>
<td>Online Phase</td>
<td>Online</td>
<td>EUMETSAT USC, NMS regional course</td>
<td></td>
<td>Online course</td>
<td>English</td>
<td>By invitation</td>
<td>Izbabela Zablocka</td>
</tr>
<tr>
<td>08/02/2016</td>
<td>RFG of Central and South America</td>
<td>Online</td>
<td>VLab</td>
<td>Argentina, Barbados, Brazil, Costa Rica</td>
<td>RFG</td>
<td>English,</td>
<td>Open</td>
<td>Bernie Connell</td>
</tr>
<tr>
<td>28/02/2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Virtual Event Weeks

- **Next Generation of Satellites**
  - 16-20 November 2015

- **Satellite Direct Readout focusing on Suomi NPP**
  - 8-9 April 2014

- **GEONETCast**
  - 3-5 December 2013
Closing Remarks

• There are a variety of materials and approaches to training.
  – If you find something you like, share it with others!
  – If you don’t find what you want, ask about it.
• In the US: Look for increased interaction and training from the new JPSS Satellite liaison.
• Internationally: Look for further collaborations with the WMO VLab.

Bernie.Connell@colostate.edu   Jorel.Torres@colostate.edu