CIMSS VISITview Satellite Training

Tom Whittaker
CIMSS – University of Wisconsin-Madison

Anthony Mostek
NOAA/National Weather Service - Training Division

Margaret Mooney
SSEC – University of Wisconsin-Madison
What is VISIT?
VISIT - Virtual Institute for Satellite Integration Training

- CIRA – NOAA Cooperative Institute for Research in the Atmosphere at Colorado State University
- CIMSS – NOAA Cooperative Institute for Meteorological Satellite Studies at University of Wisconsin-Madison
- Links to World Meteorological Organization
What are CIRA and CIMSS??

NOAA Cooperative Institutes funded by NOAA/NESDIS and NOAA/NWS (via VISIT)

- CIRA – Primarily involved in GOES Imager and new Polar Satellite applied research
- CIMSS – Primarily involved in GOES Sounder and new Polar Satellite applied research
CIMSS/CIRA/NESDIS/COMET Collaborators

Tom Whittaker, Scott Lindstrom and Scott Bachmeier
Cooperative Institute for Meteorological Satellite Studies (CIMSS) - Madison, Wisconsin

Jim Purdom, Dan Bikos and Dan Lindsey
Cooperative Institute for Research in the Atmosphere (CIRA) - Ft. Collins, Colorado

Mark DeMaria, John Weaver and Ray Zehr (NESDIS)
Ft. Collins, Colorado

Patrick Dills and Sherwood Wang
Cooperative Program for Operational Meteorology, Education and Training (COMET) - Boulder, Colorado
Other Collaborators

- Jeff Wilson (Australia), Vesa Nietosvaara (Finland), WMO RMTCs
- NWS Warning Decision Training Branch (WDTB)
- NWS Science and Operations Officers - SOOs
- Numerical Weather Prediction and Climate Teams
- NWS Interactive Forecast Preparation System Team
- NESDIS Office of Research and Applications
What is VISITview?

Platform independent distance learning software that allows instructor to connect live with many students to view same series of images containing graphics, text and annotations

Developed at CIMSS with help from VISIT team
What is VISITview?

- Evolving since 1999
- Focused to meet needs of NOAA’s National Weather Service real-time teletraining program
- Supports both live and recorded sessions
- Enables real-time collaborations
- Includes an integrated lesson builder
- Freely available & sponsored by NOAA, CIMSS, CIRA
VISITview™ is a teletraining and real-time collaboration tool developed for the National Weather Service VISIT program to meet the needs of science training of their forecasters. While it emphasizes functions needed to realize these goals, it can be used for any lawful application where image animations, zooming, colorizing, and the like are needed. It uses an integrated whiteboard/blackboard and provides for a chat function as well as page-by-page quizzes and external links, to connect instructor(s) to many students. You may also record voice and all "annotation" activities for synchronized playback has been added to VISITview™'s capabilities.
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VISITview Client-Server Topology

Audio Options:
* telephone
* VoIP
* text chat

Platforms:
* Windows
* Linux
* Mac OS
* Unix
Customary controls

- Point-click Big Red Pointer
- On-screen drawing – freehand, rectangles, circles, and straight lines with optional arrowhead
- Type text on screen or use pre-defined phrases
- User-selected color for drawing and text
- Zoom
- Always-available help screen (via ALT+?)
Specialized controls

- Animations (start, stop, speed, motion)
- Step & toggle between frames
- Fading between images
- Colorizing ("enhancement") images on-the-fly
- Picture-in-picture ("portals") and overlays during animation
- Built-in "quiz" feature to help keep students awake
- Text 'chat' window
Teletraining Courses/Sessions
Outlines/Student Guides

- Every Session has student guide:
  - Introduction/Goals/Level
  - Prerequisites
  - Installation Instructions
  - Training Session Options:
    - Interactive (live), Web-based with talking points,
      Web-based with VISITview, local VISITview, local
      or Web-based with recorded instructor audio and
      annotations
  - References/Additional Links
  - Information Contacts
Virtual Institute for Satellite Integration Training

VISIT is a joint effort involving NOAA-NESDIS Cooperative Institutes, the National Environmental Satellite Data and Information Service (NESDIS), and the National Weather Service (NWS). The primary mission of VISIT is to accelerate the transfer of research results based on atmospheric remote sensing data into NWS operations using distance education techniques.

Teletraining Calendar, Signup and Installation

Currently Offered Teletraining Sessions sorted by Professional Competency Unit (PCU):

**IST PCU 9:** Using AWIPS in the forecast process
- An Application of Pattern Recognition to Medium Range Forecasting
- Lake-effect snow
- An Ingredients-Based Approach to Forecasting Winter Season Precipitation
- HPC Medium Range Forecasting
- Enhanced-V Cloud Top Signature

**IST PCU 6:** Using Satellite Data and Products
- Tropical Satellite Imagery and Products
- GOES Sounder Data and Products
- **NEW** Fog Detection and Analysis with Satellite Data
- **NEW** POES Tropical Rainfall Potential
- **NEW** Subtropical Cyclone Analysis with Satellite Data

**IST PCU 7:** AWIPS Multi-source Data Displays
- Mesoscale Analysis of Convective Weather Using GOES R&O Imagery
- **NEW** Cyclogenesis: Analysis utilizing Geostationary Satellite Imagery

**IST PCU 2:** Using Lightning Observations
- Lightning Meteorology II
- Lightning Meteorology I

**NWP PCU 2:** Understanding Current Characteristics of Operational NWP Models
- Ensemble Prediction Systems

Miscellaneous VISIT Teletraining
- Natural Disaster Information Cards
- **NEW** Meteorological Uses of ACARS Data
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<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
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<td>RAH, EPZ, ARX, EYW, STO, DLH, CLE, EKA</td>
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<td>Mesoscale Convective Vortices 9:00 AM MDT 15:00 UTC ILX, ARX, CTP, HNX, EYW</td>
<td>Lightning Met I 9:30 AM MDT 15:30 UTC FULL</td>
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<td>AWIPS Cloud Height / Sounder Retrievals 1:30 PM MDT 19:30 UTC RAH, KKL, AFC, TFX, JAN, EWX, EYW, ILN</td>
<td>Water Vapor Imagery 9:00 AM MDT 15:00 UTC ARX, ABQ, HNX</td>
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<td>RSO III Part 2 9:30 AM MDT 15:30 UTC</td>
<td>Mesoscale Convective Vortices</td>
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Using VISITview

Over 820 Training Sessions Done
More than 13,500 Training Certificates Issued
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VISIT Evaluation Results (through May 10, 2004; 1501 evaluations)
Using VISITview

- Other agencies (Dept of Defense) and Countries (Canada, Australia, Finland, Barbados, Costa Rica, etc.)
- WMO Virtual Laboratory for Education and Training in Satellite Meteorology

CO-ORDINATION GROUP FOR METEOROLOGICAL SATELLITES

CGMS Virtual Laboratory for Education and Training in Satellite Meteorology

- Virtual Laboratory (CIRA/NESSIS)
- Virtual Laboratory (BMTC/BoM)
- Virtual Laboratory (EAMAC/ASECNA)
- Virtual Resource Library (VRL) (EUMETSAT)
- Virtual Resource Library (VRL) (JMA) [It is necessary to first register with JMA to obtain a username and password]
WMO Virtual Laboratory (VL) for Satellite Education…

WMO VL is a global network of specialized training centres created to meet user needs for increased skills and knowledge in using satellite data.

Support WMO Strategy to Improve Satellite System Utilization by providing access to training and educational material, software and expertise on how to utilize data, case studies and near real-time data.
Collaboration is the Key to Success

Bridgetown Barbados
San Jose Costa Rica
Narobi Kenya
Niamey Niger

NESDIS CIRA CIMSS VISIT

WMO Virtual Laboratory

JMA

Melbourne Australia

NSMC

Nanjing China
WMO Virtual Laboratory for Satellite Data Utilization

VISIT program supports WMO VL through use of VISITview for teletraining and collaborations:

WMO Workshops at:
- Nanjing China – December 2000
- Melbourne, Australia – May 2002
- Niamey, Niger - July 2003
- Barbados – December 2003
- Buenos Aires, Argentina – May 2004
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<td>Voice &amp; annotation recording</td>
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www.ssec.wisc.edu/visit/satcollab.html

Download VISITview™!!

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- **visitcode.zip** - just the Java class files - useful for updates (~154KB)
Collaborations with Global Real-Time Weather Satellite Imagery

This page is your link to realtime collaborations with weather satellite imagery from around the world as received and processed by the SSEC Data Center at the University of Wisconsin-Madison, using VISITview - a teletraining and collaboration tool developed for NOAA at SSEC/CIMSS.

Read this first!

- Click one of the links below, and after the applet comes up you will see a Dialog Box where you may choose to join an existing collaboration (be sure it is for the same data type, though!) or start your own.
- The VISITview controls are at the bottom of the display. To get started, click the red Next button. (A complete description of the controls can be found here.)
- The images are large, but we have created a viewing 'portal' that is 640x480, so after the image sequence is loaded, you can roam around the image by holding the Shift key while 'dragging' the mouse. (During a collaboration, after you roam around and release the mouse button, everyone's screen changes to that view.)
- For some of the collaborations, we have included high-quality images (the page labels say Hi-Q on them). These images are much better for zooming and colorizing (enhancing).
- A Quick Help screen is available by keying Alt + ? (hold Alt key and click the ? key). Click any other key to remove this.
- When you're collaborating with VISITview, any actions you do on the screen will be shown on everyone else's. So...pick a satellite, call your friends, and...

Enjoy!!

GOES East
GOES West
GOES Derived Products
GOES Pacific
Meteosat-5
Meteosat-7
Welcome to WMO VL Briefing!
VISITview - Opportunities

Expanding VISITview - Teletraining & Collaborations

NOAA/EUMETSAT Joint Training Activities

WMO Virtual Laboratory Focus Group –
  Barbados & Costa Rica
  Other RMTCs
World Wide RMTC Training Event
Summary

VISITview teletraining and collaboration tool:
- Freely available & supported by NOAA
- Gets training to users wherever they are
- Maximizes use of resources
- No technical boundaries
- Opportunities –
  WMO, NOAA, EUMETSAT…
Questions???

- Send email to:
  visitview@ssec.wisc.edu

- To join mailing list send email to:
  visitview-list-subscribe@ssec.wisc.edu

- VISITview Homepage
  www.ssec.wisc.edu/visitview/