

Satellite Meteorology Education and Training Resources for GOES-R+: Leveraging Current Activities and Lessons Learned

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For more information, visit:
<http://www.meted.ucar.edu>
✓ "Satellite Meteorology" topic

What's New
(Note: All Webcast, module, and teletraining links will launch in a new window.)

New Webcast!

Advances in Microwave Remote Sensing: Ocean Wind Speed and Direction

The COMET® Program and the IPO are pleased to announce the publication of *Advances in Microwave Remote Sensing: Ocean Wind Speed and Direction*. This Webcast covers the ocean surface wind retrieval process, the basics of microwave polarization as it relates to wind retrievals, and several operational examples. Information on the development of microwave sensors used to retrieve ocean surface wind speed and the ocean surface wind vector (speed and direction) is also included.

Satellite Meteorology: GOES Channel Selection

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- **Satellite Meteorology: GOES Channel Selection**
- The Web-based module reviews the five GOES imager channels on the current GOES series, and their operational use.
- Includes information on the updated 6.7 (water vapor) μm channel and newer 13.3 μm channel available on GOES 12/N/O/P satellites.

Engaging Users — Demonstrating Future Capabilities based on:

- Simulated datasets
- Real-time operational and R&D data sources

NexSat Exploring the NexSat Interface

Produced by the COMET® Program

Products: Aqua.modis.true1KM.Full_Overview_COMP_2000

- The **NexSat Web site** offers near real-time access to polar-orbiting satellite imagery and derived products over the lower 48 states and Hawaii from several research and operational satellites.
- NexSat uses current research and operational satellite imagery, derived products, and data overlays to preview NPOESS capabilities.

- The **Userport** Web site portal strives to:
- Provide **centralized** access to data, product and information resources related to the current and future generation of polar-orbiting satellites
 - Organize and disseminate interactive training and education on polar satellite meteorology
 - Stimulate effective use of current and new data streams in operational and research settings
 - Inform communities of interest about the transition from the current generation of POES satellites to NPOESS

- Links in the menu bar access different training options:**
- **Web modules** — interactive tutorials and/or exercises
 - **Teletraining** — includes scheduled live sessions and downloadable archived sessions
 - **Webcasts** — lectures and other presentations that have been captured and made available via the Web. These can also be downloaded for local use.
- Data** provide access to POES data and NPP/NPOESS precursor datasets.
- Web sites of interest to operational users are organized under **Links**.

Linking Science to Products, Applications, and User Needs

Water Vapor: (6.7 micron)

Water Vapor Weighting Function Variability

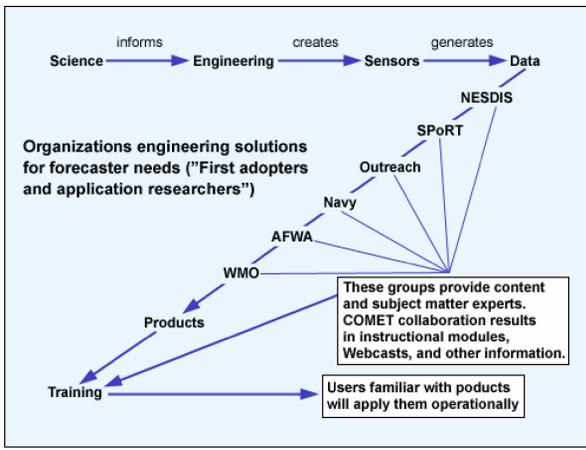
2-Jun-95 23:45:00 UTC 6.7 μm

Log Pressure (mb)

6.7 μm Water Vapor Weighting Function

See Text

The weighting function for the water vapor channel shifts in pressure as the vertical water vapor profile changes.



NexSat City Zoom Products

High Resolution Imagery over Chicago

Produced by the COMET® Program

Web portals provide one-stop shop access to:

- Training and educational materials
- Communication tools
- Links to related data resources

Water Vapor: (6.7 micron)

GOES-12/N/O/P Channel Location

GOES-12 Spectral Coverage

6.7 μm Water Vapor Weighting Function

A modified water vapor channel made its appearance with the launch of the GOES-12 satellite, the first in the GOES-M to P series, on 23 July 2001.

The GOES-12/N/O/P water vapor channel is spectrally broader than its companion, the 6.7 micron channel on the GOES-8 to -11 series, and scans at an improved resolution of 4 km at the satellite sub-point.

The figure at right shows the expanded spectral coverage for the GOES-12 water vapor channel.

Water Vapor: (6.7 micron)

Increased Spatial Resolution - Enhanced Jet Streak Analysis

The GOES-12 6.5 micron water vapor detector scans at an improved resolution of 4 km at the satellite sub-point, compared with 8 km for GOES-8 to -11. An oversampling of the 4 km field-of-view in the east-west direction by a factor of 1.75 provides an effective east-west resolution of 2.3 km.

This first comparison between GOES-12 and GOES-8 water vapor imagery demonstrates the improved resolution with GOES-12. Notice that the water vapor boundary associated with an upper-level jet streak is enhanced and appears smoother than with GOES-8.

NexSat High Resolution Imagery over Chicago

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City Zoom Products

Seattle | Chicago | New York | San Francisco | Denver | Washington

MODIS True-Color 1900 UTC 21 Aug 2004

