COMET MetEd
Meteorology Education & Training

The COMET® Program is dedicated to creating geoscience-focused educational materials primarily for professionals, university faculty and students.

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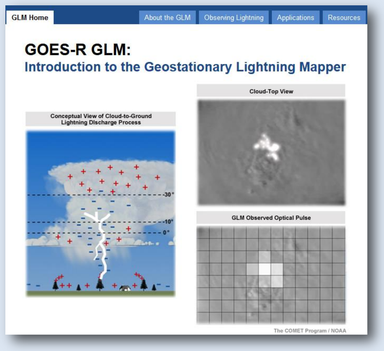
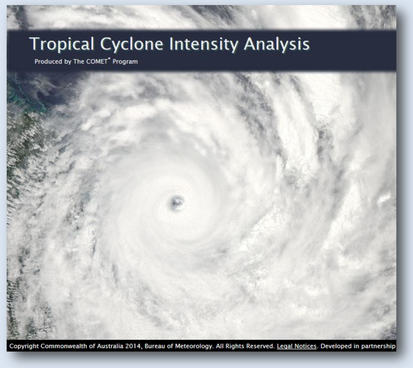
MetEd Satellite Education Resources for GOES-R, S-NPP and JPSS User Readiness

NEW LESSONS COVERING GEO AND LEO SATELLITES



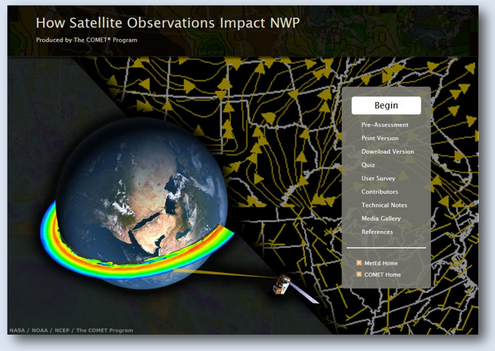
GOES-R GLM: Introduction to the Geostationary Lightning Mapper

Introduces the GLM instrument, the need for real-time lightning data, and GLM capabilities. Explores a cloud-to-ground lightning flash life cycle, and how space and ground-based observe lightning. Presents several application areas that GLM will benefit. *Pub. Sep 2014*



Tropical Cyclone Intensity Analysis

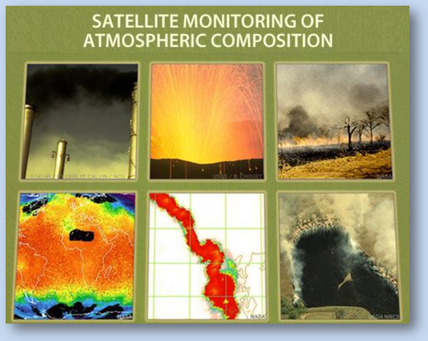
Describes different satellite-based estimation methods (both GEO and LEO) for determining tropical cyclone intensity. Three interactive case studies demonstrate application of the various methods for operations. *Pub. May 2014*



How Satellite Observations Impact NWP

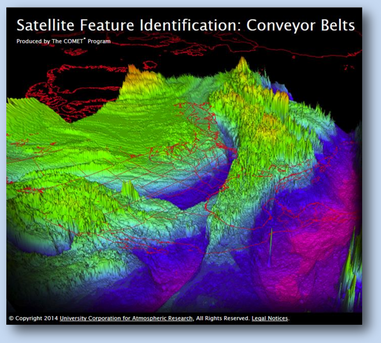
Describes the impacts of various satellite measurements on NWP, model analyses and forecast skill. Discusses how models assimilate data, how model limitations impact data usage, and ongoing advances for incorporating new satellite observations. *Pub. Mar 2014*

OTHER RECENT LESSONS & LEARNING RESOURCES



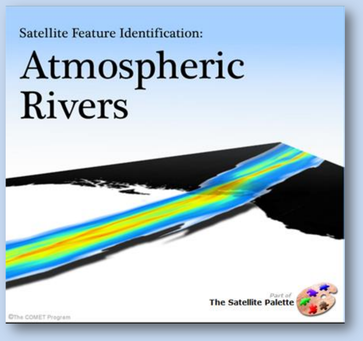
Atmospheric Composition

Provides an overview of the use of satellites in monitoring stratospheric ozone, long-range pollutant transport, biomass burning, air quality, and climate change. *Pub. Nov 2012*



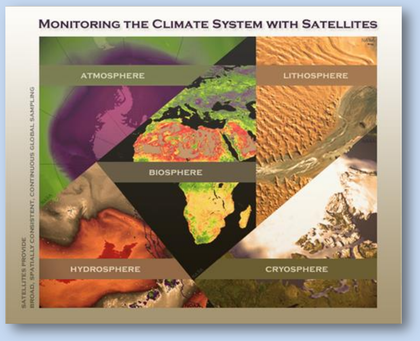
Satellite Feature Identification: Conveyor Belts

Teaches how to identify atmospheric conveyor belts using water vapor imagery. Explores key concepts, analysis techniques, and how the information can be used to enhance forecasts. *Pub. Mar 2014*



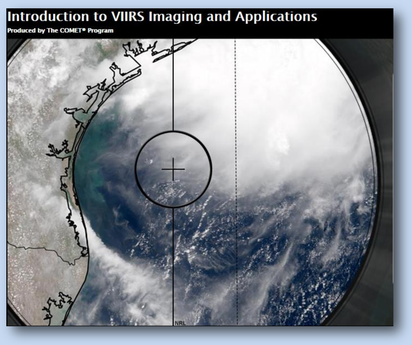
Atmospheric Rivers

Describes the global moisture transport phenomenon of atmospheric rivers, discussing how to identify and forecast them using satellite products and numerical weather prediction. *Pub. Mar 2012*



Monitoring the Climate System With Satellites

Describes the unique role that satellites play in detecting and monitoring climate events at various spatial and temporal scales. *Pub. Jan 2012*



Introduction to VIIRS Imaging and Applications

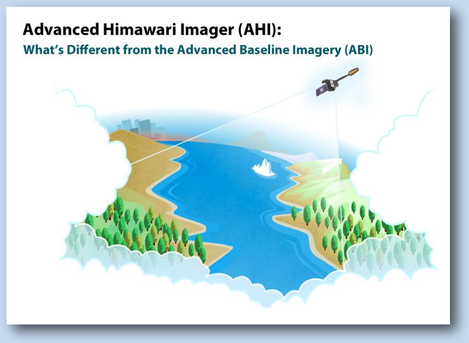
Introduces the VIIRS visible and infrared imager on the current Suomi NPP and future JPSS polar orbiters. Overview of single channel and multispectral products for multiple applications. *Pub. Sep 2013*

Multispectral Satellite Applications: RGB Products Explained

Introduces RGB concepts and product applications. Provides examples, interpretation exercises, and satellite specific information. Includes updates for Suomi NPP, JPSS, GOES-R ABI, and other next-generation international satellites. *Pub. July 2013*

GOES-R Satellites Orientation Course
(English & Spanish)

Introduces the instruments, capabilities, products, and applications anticipated for the next-generation GOES-R satellites. Certificate available upon course completion. *Posted Dec 2014*



COMING SOON!
Advanced Himawari Imager (AHI) vs. GOES-R ABI

Compares the recently launched 16-band AHI imager with the similar U.S. GOES-R ABI (Advanced Baseline Imager) planned for 2016. Reviews AHI's capabilities, channel differences, applications, operational coverage and scan strategies. *To be pub. in spring 2015*

Suomi NPP: A New Generation of Environmental Monitoring Satellites

Describes its mission, instruments, and products. Provides examples of how S-NPP monitors Earth's atmosphere, land and ocean surfaces, space weather, and climate. *Pub. May 2012*

All COMET satellite remote sensing learning resources are online. Free site registration is required.
meted.ucar.edu meted.ucar.edu/index_es.htm

This poster was prepared by the University Corporation for Atmospheric Research under cooperative agreement award #NA11NWS4670013 from the National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce.
The statements, findings, conclusions, and recommendations are those of the authors and do not necessarily reflect the views of the National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce.