

Outline

1. Why an Environmental Satellite Resource Center (ESRC)?
2. What is the ESRC?
3. Who's using the site and how can I be involved?

The COMET Program

Two primary “umbrella” websites



Who We Are

The COMET® Program supports, enhances, and stimulates learning about atmospheric and related sciences.

- About COMET
- E-Brochure
- Awards
- Contact/Visit Us
- Opportunities at COMET
- Director
- Staff
- Papers/Presentations
- Seminars
- Governance
- Legal Notices
- Associated Projects:
- SOD/STRC

Distance Education →

Our multimedia training materials including Web, CD-ROM, and teletraining delivery methods serve earth science education and training needs by providing interactive experiences for learners at a distance.

- MetEd Website
- Module List
- Purchase Modules
- Help/Technical Support

Residence Courses →

Our state-of-the-art classroom hosts courses taught jointly by university, faculty, operational forecasters, and other leaders in our field. These classes include both lectures and hands-on exercises that simulate the forecast environment.

- Classroom Website
- Course Schedule
- Course Descriptions
- Contact Us
- Visit Us

Outreach Program →

The Outreach Program provides funding for collaborative, applied research projects conducted by universities and operational forecast offices. The National Weather Service is the primary sponsor.

- Outreach Website
- Proposal Info
- Sponsored Projects
- Info for PIs
- Contact Us

International Projects →

In partnership with the National Weather Service and the World Meteorological Organization, we are working to improve access to weather data and training by the global meteorological community.

- Translated Modules
- MeteoForum
- Canadian Activities
- SCHOTI/CO-COM
- CALMet



The COMET Program won the 2006 AGU Excellence in Geophysical Education award for “a sustained commitment to excellence in



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2007-2012
 2007-2012
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 2007-2012



TOPICS	COMMUNITIES	COURSES
Aviation Weather Climate Coastal Weather Convective Weather Emergency Mgmt Environment & Society Fire Weather Fog and Low Stratus Hydrology/Flooding Marine Met/Oceans Mesoscale Met Mountain Met NWP (Modeling) QPF (Precipitation) Radar Meteorology Satellite Meteorology Space Weather Tropical/Hurricanes Winter Weather Other List of all Modules	SODs WCMs Northern Latitudes ESRC NPDSS Userport Broadcast Met MetEd Forum K12 and the Public Higher Education Int'l Warning Systems	Residence Courses Distance Courses CASES WES Cases NorthMet Cases NWP Cases ABOUT MetEd Mission and Sponsors COMET Awards Subscribe to Updates Contact Us/Purchase Support Legal Notices What's new? Coming Soon
RESOURCES	Accounts/Registration Downloads Module Quizzes Outreach Program Outside Links Spanish Resources	

What's New?

Search for information and training about environmental satellites from international resources, including MetEd.
[More info...](#)

Billboard Updates

Receive quarterly updates about new materials in English and/or Spanish.
[More info...](#)

Of Special Interest

Environment & Society

From space weather to hurricanes to health, the modules in this [new MetEd Topic area](#) explore the bridge between people and their environment. Produced for broadcasters, meteorologists, emergency managers, and students, they all touch on weather and climate's reach into human lives whether on an icy nighttime road, the business end of a flash flood, or in the shadow of a looming hurricane.

These modules should interest anyone who wants to learn more about how weather, climate and the environment can affect them – and what they should do about it if they find themselves in harm's way.

Related modules of interest:

- Recent Publications**
-
- [Topics in Tropical Meteorology](#)
 - [GOCES-R: Benefits of Next-Generation Environmental Monitoring](#)
 - [Weather and Health](#)
 - [5-290 Unit 5: Temperature and Relative Humidity Relationships](#)

The ESRC is an embedded Web site resource.

How it Began...

The idea for a “Satellite Matrix” originated as a community request in a NPOESS Training Resources Development Workshop in May 2006.

Identified a need to provide a single point-of-access to the large range of useful information and training resources about LEO and GEO satellites from multiple sources.

Desire to provide numerous “bite-sized” resources (in addition to full modules) for quick reference and just-in-time learning.



Why not just Google?



[Advanced Search](#)
[Preferences](#)

Web

[To install **satellite** TV](#)
www.bbclive-tvg.com.cn Watch 3,000+ channels on your PC, One time fee, lifetime access.

[Satellite Instruments](#) Information | Business.com  
 Racal **Instruments Satellite** Test Systems Design, integration and support of commercial and aerospace functional test systems; deployable test solutions for ...
www.business.com/directory/telecommunications/satellite_communications/manufacturers/equipment_and.../instruments/ - 55k - [Cached](#) - [Similar pages](#) - 

[SATELLITE INSTRUMENTS](#)  
SATELLITE SENSING INSTRUMENTS. Channel. VIDEO PRODUCTIONS. Copyright, 1996. Permission is granted to educators for free use of image and Postix in teaching. ...
www.meto.umd.edu/~owen/CHPI/IMAGES/satinst4.html - 2k - [Cached](#) - [Similar pages](#) - 

[In Brief: Technical problems develop in Mars **satellite instruments**](#)  
 Citation: Zielinski, S. (2007), In Brief: Technical problems develop in Mars **satellite instruments**, Eos Trans. AGU, 88(8), doi:10.1029/2007EO080006. ...
www.agu.org/pubs/crossref/2007/2007EO080006.shtml - 5k - [Cached](#) - [Similar pages](#) - 
 by S Zielinski - 2007 - [All 2 versions](#)

[Supplementary material to "Achieving **Satellite Instrument** ...](#)  
 The Workshop on Achieving **Satellite Instrument** Calibration for Climate Change (ASIC3) was held at the National Conference Center, Lansdowne, Va., ...
www.agu.org/eos_elec/2007/11-136_satellite.html - 20k - [Cached](#) - [Similar pages](#) - 

[First Sunrise On Solar **Satellite's Instruments**](#)  
 The Hinode (formerly Solar-B) **satellite**, a joint Japan/NASA/PPARC mission launched on 22nd September 2006, has reported its first observations of the Sun ...
www.sciencedaily.com/releases/2006/10/061031185246.htm - 50k - [Cached](#) - [Similar pages](#) - 

[Learn more about **satellite instruments** | Eureka! Science News](#)  
 The **satellite** will continue monitoring trends in sea-level ... Orbitography and Radio-positioning Integrated by **Satellite instrument**. ...
esciencenews.com/dictionary/satellite_instruments - 15k - [Cached](#) - [Similar pages](#) - 

[Satellite Instruments](#) | blog of bile  
 ... Science Team Leader for the AMSR-E **instrument** flying on NASA's Aqua **satellite**. ... climate sensitivity) from our latest and best **satellite instruments**. ...
blogofbile.com/tag/satellite_instruments/ - 26k - [Cached](#) - [Similar pages](#) - 

436,000 hits!

Can they all be trusted?

Which are the "gems"?

COMET's Role

1. Maintain the ESRC website
2. Populate it with our own materials, including smaller, focused learning-objects derived from our larger training modules (more on this on the next slide!)
3. Provide the necessary quality assurance and monitoring to ensure that all resources are appropriate and well described before being made available

Facilitate Improved Access to Specific MetEd Resources

- 47 English training modules in this list (and growing) representing >50 hours of training

- But where is the one great bit on topic X?



http://www.meted.ucar.edu/topics_satellite.php

MetEd: Satellite Meteorology

Satellite Meteorology

Materials: [Courses](#) | [Modules](#) | [Translated Modules](#)

Distance Learning Courses

Course Title and Link
Microwave Remote Sensing Topics Distance Learning Course <small>description (click to show/hide)</small>

Modules

Level	Module Title and Link	Quiz Link
2	Advanced Satellite Sounding: The Benefits of the Hyperspectral Observation <small>description (click to show/hide)</small>	Quiz
1	Advances in Microwave Remote Sensing: Ocean Wind Speed and Direction <small>description (click to show/hide)</small>	Quiz
1	An Introduction to POES Data and Products <small>description (click to show/hide)</small>	No Quiz
1	An Introduction to the EUMETSAT Polar System <small>description (click to show/hide)</small>	Quiz
2	Blowing Snow: Baker Lake, Nunavut, Canada 04-10 February 2003 <small>description (click to show/hide)</small>	Quiz
1	Creating Meteorological Products from Satellite Data <small>description (click to show/hide)</small>	Quiz
3	Deformation Zone Analysis <small>description (click to show/hide)</small>	Quiz
3	Deformation Zone Diagnosis <small>description (click to show/hide)</small>	Quiz
2	Deformation Zone Distribution <small>description (click to show/hide)</small>	Quiz
2	Determining Visibility <small>description (click to show/hide)</small>	No Quiz
1	Dust Enhancement Techniques Using MODIS and SeaWiFS <small>description (click to show/hide)</small>	Quiz

Special Interest

[Environmental Satellite Resource Center \(ESRC\)](#)
This community-driven Website launched in September of 2008 provides access to a wide variety of environmental satellite materials for all knowledge levels. You can use one or all of the search options to limit your search within categories or with specific keywords. New resources are added frequently as this site grows in popularity throughout the global satellite community.

[NPOESS Userport](#)
This site provides links to information and training on the use of polar-orbiting satellites from NOAA, NASA, and the Department of Defense in addition to previewing features that will be available on NPOESS. Internet discussion groups and listservs are also available on the site. New links and features will be added to the site as new training is developed and more information becomes available.

[Outreach Program Report](#)
A COMET Outreach Program partnership between the Florida Institute of Technology (FIT) and the Miami WFO assisted in the acquisition of both diagnostic as well as enhanced prognostic tools that were not previously available to the office. FIT is providing WFO Miami real-time GOES SSTs (GSST) that are being ingested in AWIPS. This represents a significant forecast aid when editing forecast grids over water such as air temperatures, moisture, and wave heights. See the report: [Using GOES SSTs to retrieve over-ocean air temperatures in support of local data assimilation and modeling efforts.](#)

Materials: [Courses](#) | [Modules](#) | [Translated Modules](#)

Distance Learning Courses

Course Title and Link

[Microwave Remote Sensing Topics Distance Learning Course](#)
[description](#) (click to show/hide)

Modules

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1	Creating Meteorological Products from Satellite Data <small>description (click to show/hide)</small>	Quiz
3	Deformation Zone Analysis <small>description (click to show/hide)</small>	Quiz
3	Deformation Zone Diagnosis <small>description (click to show/hide)</small>	Quiz
2	Deformation Zone Distribution <small>description (click to show/hide)</small>	Quiz
2	Determining Visibility <small>description (click to show/hide)</small>	No Quiz
1	Dust Enhancement Techniques Using MODIS and SeaWiFS <small>description (click to show/hide)</small>	Quiz

Goals for Site Design

- An intuitive, easy-to-use interface
- Useful for a variety of audiences
- Non-complex submission criteria and process
- Flexible and extensible
- Broadly representative of all available resources (with a degree of quality control)
- Easily maintained
- Community-ownership

The ESRC is a community site where organizations and individuals around the globe can easily submit their resources via online forms by providing a small set of metadata.

Resource Sources (with focus on training)

- COMET Modules
 - VISIT Program Lessons
-
- U.S. Government
 - NOAA
 - NASA, etc.
 - U.S. Military
 - NRL, etc.
 - Universities
 - Educators
 - International Weather and Satellite Agencies
 - EUMETSAT
 - Professional Organizations
 - AMS
 - NWA, etc.

The ESRC



The screenshot shows the ESRC website interface. At the top left is the ESRC logo, which includes a satellite icon and the text "ESRC environmental satellite resource center". To the right of the logo, it says "Operated by the COMET® Program". In the top right corner, there are links for "COMET" and "MetEd". Below the header is a navigation menu with the following items: "search", "about ESRC", "send your comments", "submit a resource", "edit your resource submissions", and "help". The main content area features a heading: "The Environmental Satellite Resource Center provides..." followed by a description: "easy access to a wide range of useful information, education, and training about low-earth orbit and geostationary satellites from trusted sources." Below this is a link for "more info". There are three search options listed, each with a red box around its label: "Basic search" (which includes a search input field and a "search" button), "Categorical search (click to expand / collapse)", and "Guided keyword search (click to expand / collapse)".

Site published 23 September 2008

Search Functionality and Results

COMET | MetEd

Operated by the COMET® Program

search
about ESRC
send your comments
submit a resource
edit your resource submissions
help

Basic search

search

- IDR
- Technical Information
- Telecommunication Cables (expand / collapse)
- Temperature
- Temperature and Moisture (click to expand / collapse)
- Thermal Wind Profiles
- TIROS
- IMI est.
- tornado
- Total Precipitable Water (click over link for description)

page 1 of 1

	Publisher ▶	Est. Length ▶	Details
<p><u>A Satellite Perspective of Tornado-Producing Cells Associated with Hurricane Ivan</u></p> <p style="font-size: x-small;">Subject: GOES imagery is used to examine convective features associated with tornadoes associated with the landfall of Hurricane Ivan in September of 2004. Radar data is also shown for comparison.</p>	CIRA	2-10 minutes	more
<p><u>Cloud-top Structure of Northeast Colorado Thunderstorms</u></p> <p style="font-size: x-small;">Subject: On May 24, 2005, thunderstorms formed over northeastern Colorado where severe storm reports indicated high wind, large hail, and tornadoes in the area. This case uses both GOES Imagery and MODIS data to compare thunderstorm cloud top structures.</p>	CIRA	2-10 minutes	more

page 1 of 1

Major investment and ongoing commitment from our satellite sponsors, primarily the NPOESS IPO and NOAA NESDIS.

More about the ESRC

COMET | MetEd



Operated by the COMET® Program

search | about ESRC | send your comments | submit a resource | edit your resource submissions | help

The Environmental Satellite Resource Center provides...
easy access to a wide range of useful information, education, and training
about low-earth orbit and geostationary satellites from trusted sources.
[more info](#)

Basic search

Categorical search (click to expand / collapse)

Choose a category to search within:

<input type="checkbox"/> Satellite applications	<input type="checkbox"/> Satellite systems	<input type="checkbox"/> Satellite Science
<input type="checkbox"/> Data products	<input type="checkbox"/> Cases and examples	<input checked="" type="checkbox"/> Education and training

Guided keyword search (click to expand / collapse)

Choose a keyword category:

Applications: Atmospheric Land Ocean Space	Satellites: Low-earth Orbit Geostationary	Instruments: Imaging Instruments Sounding Instruments Other Instruments	Other Information: Technical Data Science Topics Cases Data Products
---	--	---	---

Guided Keyword Search

Guided keyword search (click to expand / collapse)

Selected keywords:

"Visibility" "Smoke and Aerosols" "Gases: Carbon Dioxide (CO2) Water Vapor (WV) Ozone"

clear keywords

Choose a keyword category:

Applications:

- ▶ [Atmospheric](#)
- [Land](#)
- [Ocean](#)
- [Space](#)

Satellites:

- [Low-earth Orbit](#)
- [Geostationary](#)

Instruments:

- [Imaging Instruments](#)
- [Sounding Instruments](#)
- [Other Instruments](#)

Other Information:

- [Technical Data](#)
- [Science Topics](#)
- [Cases](#)
- [Data Products](#)

Atmospheric

Choose a keyword:

Convection

- All Convection (Thunderstorms)
- Moisture
- Stability Indices
- Surface Temperature
- Convective Precipitation
- Outflow Boundaries
- MCSs
- Isolated Storms

Clouds and Aerosols

- All Clouds and Aerosol
- Cloud Properties
- Cloud Tops
- Cloud Amount
- Cloud Type

Transportation Weather

- All Transportation Weather
- Icing
- Visibility
- Fog and Stratus
- Satellite-Derived Winds
- Turbulence
- Volcanic Ash
- Aviation (General and Other Subtopics)

Synoptic Large-Scale

- All Synoptic/Large-Scale
- Fronts
- Extratropical Cyclones
- Anticyclones
- Tropical Cyclones

Fires

- All Fires
- Pre-Fire Weather
- Hot Spots
- Smoke and Aerosols
- Pyrocumulonimbus

Mesoscale Phenomena

- All Mesoscale Phenomena
- Fronts
- Jet Streaks
- Dust Storms
- Gap Winds
- Sea Breezes
- Mountain/Valley Breezes
- Orographic Effects (Clouds and Precip)

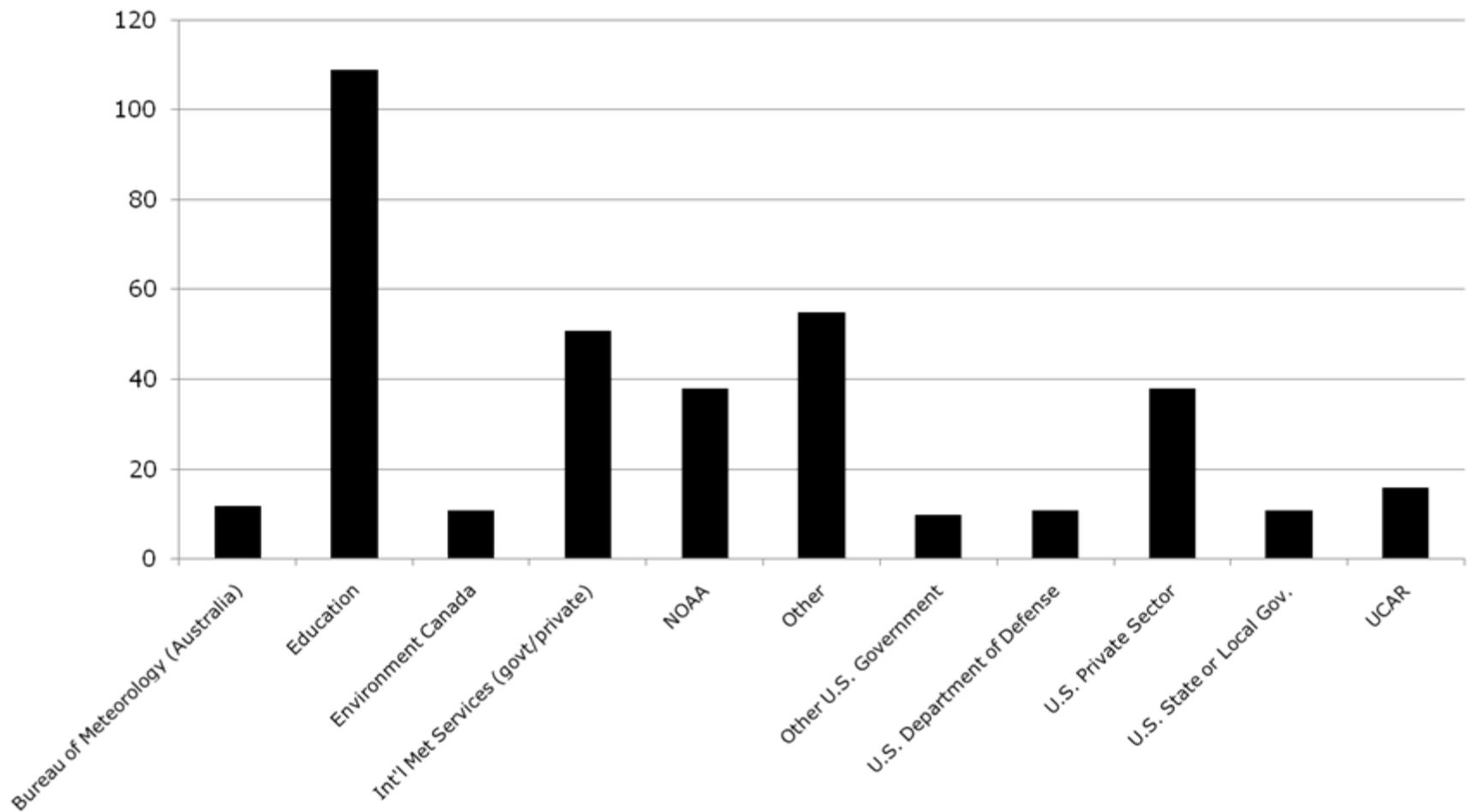
Climate

- All Atmospheric Climate Applications
- Gases (CO2, WV, Ozone, etc.)
- Precipitation
- El Niño
- MJO
- PDO
- NAO
- IOD

General

- All Atmospheric Applications
- Winds
- Severe Weather
- Precipitation
- Water Vapor

Oct.-Dec. 2008 ESRC User Sessions



Community's Role in the ESRC

1. Use the site
2. Populate it with materials that you know and trust using the online submission form

[search](#)[about ESRC](#)[send your comments](#)[submit a resource](#)[edit your resource submissions](#)[help](#) (* required fields)

Mouse over field titles for instructions.

* **Resource URL** (include: <http://www>. on your resource URL)

 Check if this resource already exists in ESRC.

Simple Registration to Use the ESRC

MetEd
Meteorology Education & Training

Operated by the  Program
Serving meteorologists since 1989

Español Account Login | Search:

 HOME TOPICS COMMUNITIES COURSES CASES RESOURCES ABOUT MetEd

resources: registration

Registration

Member Login

Already a member?
Sign in to continue.

E-mail:

Password:

[Forgot your password?](#)

[Change my account information](#)

New User Registration

Not a member?

Registration is required to take COMET modules and quizzes.

Registration is easy. Just provide some information about yourself. There is no charge for accessing any of our materials.

By registering, your quiz scores will be stored in your personal record. In addition, a printable certificate of completion will be generated for each passing score you achieve. You need cookies enabled to use the modules and quizzes on this site.

For questions about privacy, see the [COMET Registration Privacy Policy](#). This site also complies with the [UCAR Privacy Policy](#). Only with your authorization, quiz results may be shared with your supervisor, instructor, or other person whose e-mail address you specify.

For more information about registration, security, and troubleshooting, read the [Registration Information](#) page.

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Summary



- The Environmental Satellite Resource Center is available for use right now at:

<http://www.meted.ucar.edu/esrc>

- Plans for 2009:
 - Continue to add additional resources
 - Refine resource submission page
 - Additional refinement of keywords
- Questions?
 - Contact me at abshire@ucar.edu
 - I have cards with the URL reminder