

# Satellite Meteorology Resources and the GOES-R Education Proving Ground

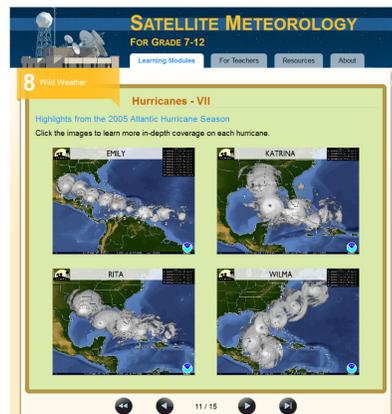


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The CIMSS Education Proving Ground features a makeover of the classic Satellite Meteorology for Grades 7-12 resource and the design and development of new activities for G7-12 teachers and students in preparation for the launch of GOES-R. Our goal is to have CIMSS and ASPB scientists work with students virtually during post-launch GOES-R checkout activities. A key element of this effort will be sustained interaction between CIMSS EPO staff and a core group of committed educators recruited specifically to collect feedback for iterative improvements to the classroom activities prior to launch. In this way, teachers will be ready to run similar activities with their students following the 2015 GOES-R launch and be ready for the new types of satellite imagery and products that will be available in the upcoming GOES-R era.

## SATELLITE METEOROLGY FOR GRADES 7-12

Previously existing content in the Satellite Meteorology for Grades 7-12 on-line course underwent a complete makeover in 2011 to create a modernized and visually appealing interface. Content updates included the addition of the 2005 Hurricane Season and feedback acquired from past users. Other updates underway include a case study on the 2010 Gulf Oil Slick which is being developed to provide comparisons to current GOES platforms (what we were able to see) and glimpses into future GOES-R capacities (what we will be able to see) and links to NOAA's restoration efforts. Still pending but in development are content revisions to include information about the Suomi NPP satellite and a module dedicate to GOES-R. All revisions and updates will be completed prior to the Satellite Educators conference scheduled for August 2012 where we also plan to begin teacher recruitment for the CIMSS Education Proving Ground.



A complete makeover!

## EDUCATION PROVING GROUND

The Education Proving Ground will feature the design and development of pre- and post-launch activities for G6-12 teachers and students. A key element of this effort will be identifying a core group of committed educators followed by sustained interaction between CIMSS EPO and the GOES-R teachers for the purposes of evaluation, user feedback and successive improvements. This Education Proving Ground will rely on close coordination with the members of GOES-R Algorithm Working Group (AWG) and Risk Reduction programs at CIMSS.



CIMSS will collaborate with Nina Jackson (NESDIS office of Education) and Professor Paul Ruscher (Florida State University) in planning the GOES-R launch activities. This collaboration will commence in 2012 with a presentation at the Satellite Educators Conference in California where we will also recruit the first two long-term participants. We plan to work with two educators in California, two in Wisconsin and two from Florida. This core group of six teachers will work with CIMSS prior to and after the GOES-R launch.

## PRESENTATION AT THE NPP LAUNCH

CIMSS accepted an invitation to present in the NOAA NPOESS Preparatory Project (NPP) Educator's workshop in October 2011 which was held in conjunction with the NPP satellite launch at Vandenberg Air Force Base. With approximately 100 teachers from across the country at the workshop, Patrick Rowley from CIMSS led sessions showcasing online courses for teachers (Satellite Applications in Geoscience Education), college students (Satellite Observations in Science Education) and middle and high school students (Satellite Meteorology for Grades 7-12).



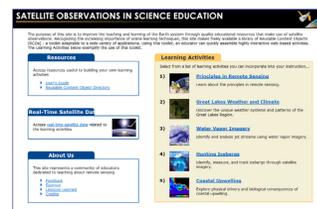
## ADDITIONAL RESOURCES FROM CIMSS

### For Middle and High School Teachers: Satellite Applications for Geoscience Education (SAGE)



<http://cimss.ssec.wisc.edu/sage>

### For Undergraduate students and Instructors: Satellite Observations in Science Education (SOSE)



<http://cimss.ssec.wisc.edu/sose>



We are proposing that these educators have their students conduct post-launch check out by providing assessments of image quality and registration. We will develop and test example activities using current GOES observations. Since CIMSS/ASPB scientists participate in these activities, the tools are already available to support this learning goal. Our overall goal is to have scientists from CIMSS work with students virtually during the post-launch activity. Educators will work through test exercises with GOES data similar to those that scientists run to check data quality after a satellite launch, including but not limited to geo-location determinations and noise assessment. In this way, teachers will be ready to run similar test with their students following the 2015 GOES-R launch.