

S'COOL Takes Students to New Heights

Carolyn J. Green
Scientific Applications International Corporation
One Enterprise Parkway, Suite 300
Hampton, VA 23666-5845
757-827-4848/tel. 757-825-9129/fax

Lin H. Chambers
National Aeronautics and Space Administration
Langley Research Center, Mail Code 420
Hampton, VA 23681-0001
757-864-4371/tel. 757-864-7996/fax

Students' Cloud Observations On-Line (S'COOL) is a hands-on educational project which supports NASA's Clouds and the Earth's Radiant Energy System (CERES) satellite instrument; part of the Earth Science Enterprise studying our planet. S'COOL meets science, math, technology and geography Standards of Learning (SOLs) as students observe clouds and related weather conditions, compute data and locate vital information while obtaining ground truth observations for the CERES instrument. These observations can then be used to help validate the CERES measurements; particularly detection of clear sky from space.

Participants to date have been in 20 states and 5 countries and have reported great interest and learning among their students. Many have used this project as a stepping stone to further learning in other areas of Earth Science; and to do more with the Internet in the classroom. Satellite images and clues to their interpretation are used on the website (<http://asd-www.larc.nasa.gov/SCOOL/>). Background information is also given on Earth's Radiation Budget and its importance in understanding our climate. Students can retrieve both their observations and the corresponding satellite data and participate in the validation efforts. A number of suggestions for studies to be done with the data, and related lesson plans, are available. Teachers can tailor this project to the appropriate level and subject matter needed for their students. The recommended grade level is 4th through 12th grade.

The project is now open to new participants. We particularly seek schools in more remote areas, to obtain wider geographic coverage for ground truth data; so the project has been designed to use, but not require, computer technology. AGU participants attending the S'COOL presentation will be given a handout describing the project. Material for introducing the project in the classroom will be demonstrated in a participatory style.