



Students from Cooper Middle School in Newport News Virginia taking sun photometer and cloud measurements

Project Title: Educator Workshop – NASA Satellites Study Earth’s Atmosphere: CALIPSO, CloudSat and Aura working with the GLOBE Project

URLS:

For more information or an application click on “OUTREACH” at (<http://www-calipso.larc.nasa.gov/>) Additional information on the missions can be found at: <http://cloudsat.atmos.colostate.edu> or <http://eos-aura.gsfc.nasa.gov>

Brief Mission Descriptions:

CALIPSO, CloudSat, and Aura are three satellite-based research missions that will provide students globally with a link to NASA research through their education and outreach programs. Each of these satellites is scheduled to be included in a formation of six satellites known as the Afternoon Satellite Constellation, also known as the “A-Train.” The satellites composing the A-Train will fly in close proximity, providing combined detailed observations about the condition of Earth, assisting scientists with making predictions related to climate change. CALIPSO and CloudSat will use remote sensing instruments that are unique to their mission for data collection. CloudSat will use radar and provide a global survey of cloud properties to aid with improving cloud models and the accuracy of weather forecasts. CALIPSO will use lidar to detect size and distribution of aerosols to improve our understanding of the role aerosols and clouds play in Earth’s climate system. The Aura mission is designed to attack several science questions: (1) Is the ozone layer recovering as expected? (2) What are the sources and processes that control tropospheric pollutants? (3) What is the quantitative impact of aerosols, upper tropospheric water vapor and ozone on climate change? Aura will answer these questions by globally measuring a comprehensive set of atmospheric constituents at high vertical and horizontal resolution.

Educator Workshop

An educator workshop titled *NASA Satellites Study Earth’s Atmosphere: CALIPSO, CloudSat and Aura working with the GLOBE Project* is currently scheduled for July 12-22, 2004 in Fort Collins Colorado. This workshop primarily targets middle school educators who will work with the CALIPSO, CloudSat and Aura missions to involve students in reporting visual cloud observations and sun photometer data collection through the GLOBE project website. Accepted participants will receive both a stipend and travel expenses. Support will be provided to the participants to develop and present at regional workshops in their local school systems. Applications are available online.

Outreach Contacts:

CALIPSO: Barbara Maggi, Hampton University - Barbara.maggi@hamptonu.edu
CloudSat: Sue Lini, Colorado State University - lini@atmos.colostate.edu
Aura: Stephanie Stockman, stockman@core2.gsfc.nasa.gov