

Cooperative Institute for Meteorological Satellite Studies

The National Oceanic and Atmospheric Administration (NOAA) and the University of Wisconsin-Madison (UW) have collaborated for more than three decades in satellite meteorological research. The relationship between NOAA and the UW, from which the Cooperative Institute for Meteorological Satellite Studies (CIMSS) was founded, furthers the missions of both organizations. A Memorandum of Understanding between NOAA and the UW established CIMSS in 1980 to formalize their partnership in meteorological research using satellite technology and to provide a firm basis for cooperative research efforts. Sponsorship and membership of the Institute was expanded to include the National Aeronautics and Space Administration (NASA) in 1989. The CIMSS mission is to:

- Foster effective collaboration between NOAA and UW in atmospheric and Earth science exploiting satellite technology;
- Serve as a center of excellence where government and university scientists and engineers work together on projects of mutual interest involving remote sensing of the Earth; and
- Stimulate training of scientists and engineers in disciplines involved in the atmospheric and Earth sciences.

The CIMSS research program includes five research themes and one outreach theme. These themes are: Weather Nowcasting and Forecasting, Clouds and Radiation, Global Hydrological Cycle, Environmental Trends, Climate and Educating and Informing our Citizens. As the major scientific themes of CIMSS are broad, their evolution occurs at the research project level. Numerous programs that track one or more themes have emerged and evolved throughout CIMSS history. These projects evolve to meet NOAA needs, improve scientific understanding, and foster the new capabilities required with advanced satellite observations.

The Advanced Satellite Products Branch (ASPB), within the Office of Satellite Technology and Research (STAR) in the National Environmental Satellite, Data, and Information Service (NESDIS), is physically collocated with CIMSS on the University of Wisconsin-Madison campus. The ASPB conducts research and development activities in collaboration with university scientists within CIMSS on the broad theme of meteorological satellite studies related to weather and climate. This relationship between the university and ASPB enables NOAA to adopt demonstrated research techniques for deriving atmospheric information from remote sensing data for broader distribution to the science community.

In particular, CIMSS collaborates with NOAA in the specification, testing, and evaluation of new satellite instruments; in the development of techniques to derive and apply meteorological parameters from the available satellite measurements; and in the assessment of the impact of new remote sensing data and products on weather analyses and forecasts and as long-term climate data records. The University of Wisconsin, the scientific community and the nation benefit from this arrangement through the training of students and the support of research in atmospheric and Earth science.



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