



## ***Development of a Community Airborne Platform Remote-Sensing Interdisciplinary Suite (CAPRIS)***

**J. Vivekanandan, Wen-Chau Lee, Eric Loew, Shane Mayor, Scott Spuler, and  
Jim Moore**

Earth Observing Laboratory  
NCAR, Boulder, Colorado

Interdisciplinary research is required to advance the understanding of the water cycle, the earth radiation budget, and the transport and production of chemical species. Coincident observations from a single airborne platform are vital for interdisciplinary research. At present, measurements of clouds, chemistry, and winds can only be achieved by combining observations from multiple aircrafts, assuming simultaneity in time and collocation in space.

CAPRIS can help bridge these gaps by providing an unprecedented combination of coincident observations of precipitation, winds, cloud microphysics, water vapor, ozone, and aerosol at a wide range of temporal and spatial scales. In conjunction with a wealth of in situ sensors on the C-130 and the GV (Gulfstream V) aircraft, the CAPRIS (<http://www.eol.ucar.edu/development/capris/about.html>) will serve the observational needs of the climate, atmospheric chemistry, and meteorology communities. The instruments on CAPRIS are envisioned to include both conformal phased array radars and eye-safe lidars. It should also be possible to consider ground-based deployment of these systems.

A brief description of the CAPRIS measurement capabilities and a technical description will be presented. We would like to receive your comments about the capabilities and deficiencies in CAPRIS to meet the scientific needs of the research community.