BROOKHAVEN NATIONAL LABORATORY

BNL-91291-2010-CP

USING ARM OBSERVATIONS TO EVALUATE NWP RESULTS OF RADIATION AND CLOUD FRACTION

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Presented at the
DOE Integrated Climate Change Modeling Science Team Meeting,
Gaithersburg, MD
March 29-April 02, 2010

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ABSTRACT

This poster will present the results from:

1) Evaluating NWP model performances in simulating surface cloud radiative forcing measured by effective cloud albedo and total cloud fraction by comparing three major reanalysis datasets (ERA-Interim, NCEP/NCAR Reanalysis and NCEP/DOE Reanalysis) against decade-long ARM observations;

2) Examining the relationships between the model biases of the cloud properties and those of near-surface relative humidity and temperature;

3) Evaluating NWP model performances in simulating vertical profiles of cloud fraction; and,

4) Evaluating NWP model skill scores of predicting cloud fraction.
