MODIS Observations to Improve North American Monsoon Seasonal Simulations

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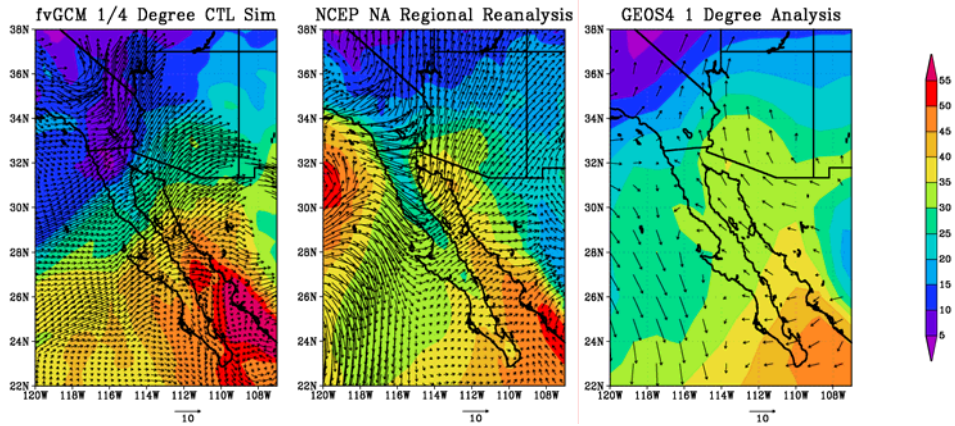
Objective of Columbia Usage

- Investigation of large-scale and local-scale circulations during the 2004 North American Monsoon Experiment using model simulations
- Evaluate the impact of remotely sensed land data on the evolution and maintenance of the NA Monsoon (MODIS)

Identify the codes to be run on Columbia

- Finite Volume General Circulation Model (fvGCM)
- 1/4° Spatial resolution; Global Domain



21Z 10July2004 TPW and 850 HPa Wind Vectors for fvGCM (t+70days) sim, NCEP NARR and GEOS4 Operational Analysis

Key Milestones

• 6 Member control Experiment	Mid-May-2005
• Evaluation of Control Ensemble	Mid-June-2005
• Integrate Prescribed Land Forcing code (GLDAS Forcing)	July-2005
• 6 Member Prescribed Land (Sens. Exp.)	Sept-2005
• Integrate MODIS Land Specification Data (LAI, Veg)	Oct-2005
• 6 Member MODIS Land Exp	Nov-2005
• Evaluate Remaining computing; MODIS SST product for GCMs; Prepare Scientific manuscript	Jan-2006+

Scientific Impact

We will evaluate the impact of high resolution observations on seasonal simulations of the North American monsoon system, specifically MODIS land data, GLDAS forcing data and if available, MODIS SST product. This will also lead to a better understanding of the interplay between large scale flow and local circulations in the NA monsoon.

Co-Is/Partners

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