

Improving the Noah Land Model for Better Noah/CRTM Coupling and Accelerated Use of Satellite Data

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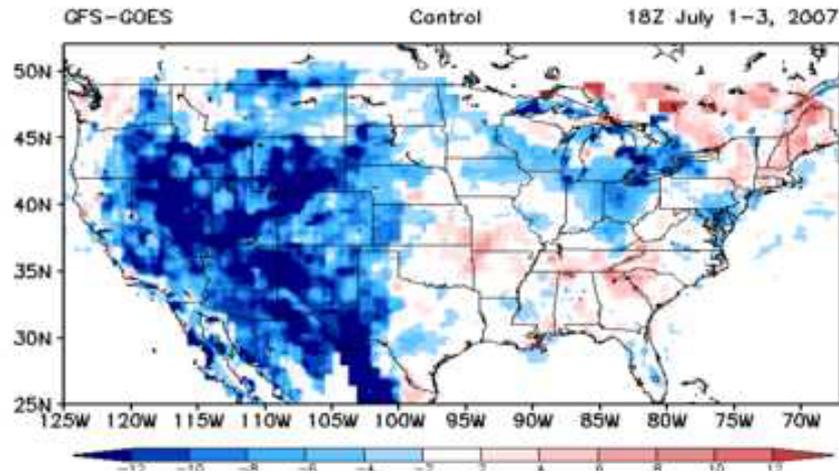
Goals: Improve Noah land model;
Better Noah/CRTM coupling;
Increased use of satellite data

Data: MW, IR, VIS/NIR, in-situ

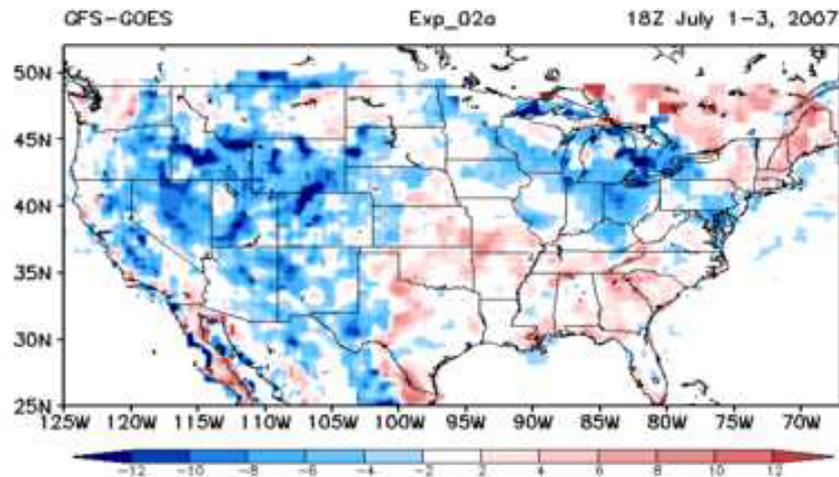
Methods: Model-data integration

Collaborators: NCEP/EMC Land Team, and others

Prelim Results: New formulations to improve GFS forecasting of land skin temperature; new formulation for snow fraction in Noah/CRTM coupling; revised Richards equation



GFS forecasts underestimate Ts by 10-15K in western US



Our new formulations significantly reduce the bias (tests done by Mitchell's team)