Using Irradiance Data from CERES and MODIS to Improve Snowmelt Modeling

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MODIS SW Surface Radiative Fluxes

**Computed using 2-stream model (Wang & Pinker, 2009).**

MODIS cloud, aerosol, and surface properties, ozone and water vapor profiles used as inputs.

Computed for the western U.S. for full year 2004 and Jan-July 2005 and 2009.

1 January 2005 coverage
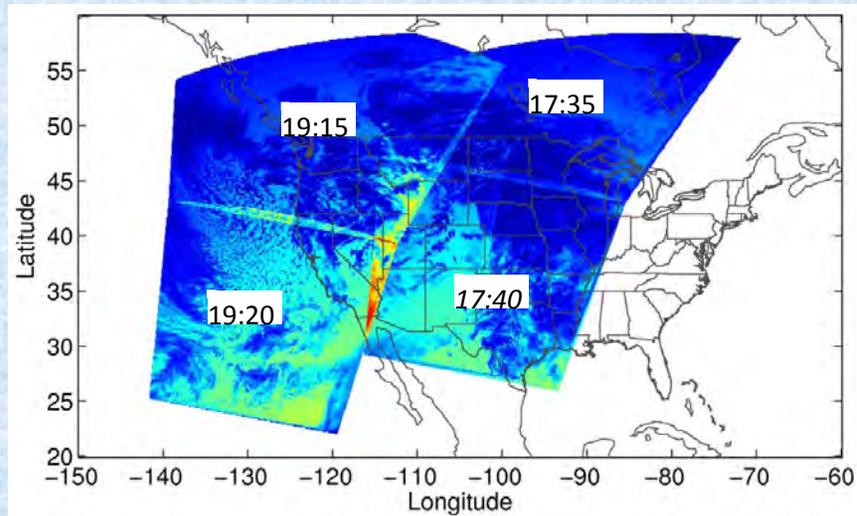

MODIS spatial field

August 8, 2003
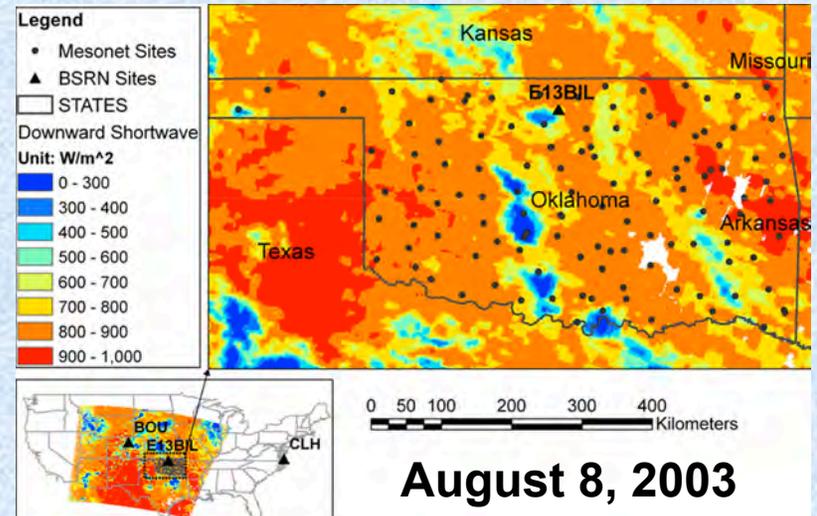
Application of MODIS Surface Fluxes

No snow
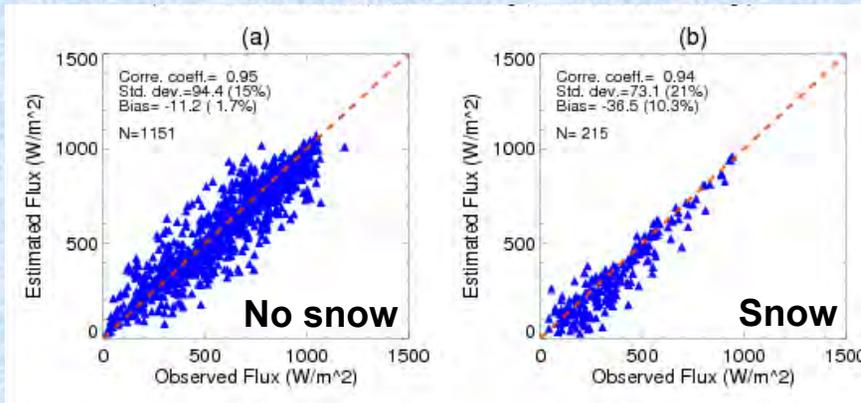
Snow

Evaluation focused on snowy conditions
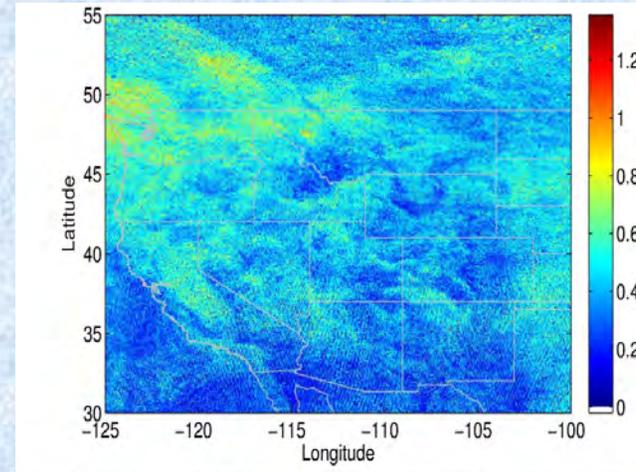
Study of spatial and temporal variability

SW flux
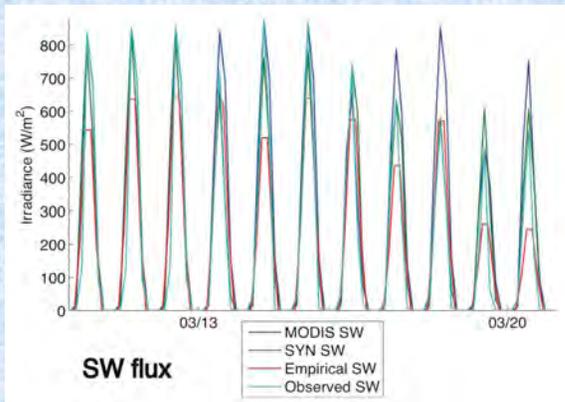
Interpolation techniques
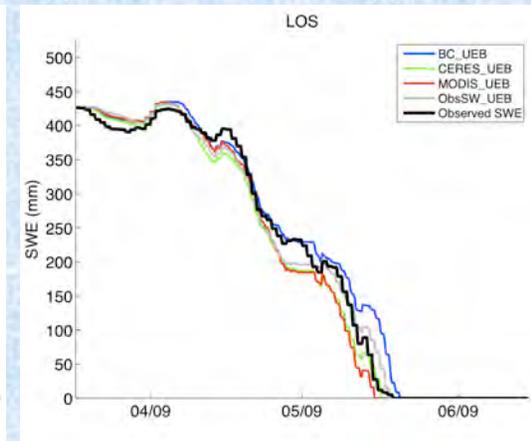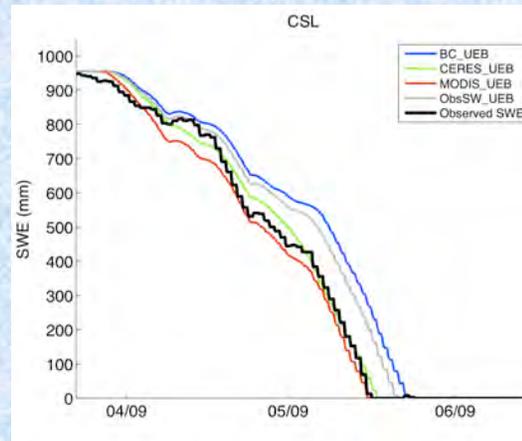
Performance in snowmelt models