



Sensitivity of T2m forecast to soil moisture initial states using NCEP short-range ensemble forecasting (SREF) system

J. Du and G. Gayno

EMC/NCEP/NOAA and SAIC (Jun.Du@noaa.gov)

NCEP Short-Range Ensemble Forecasting (SREF) system has been running in operation since 2001. It's noticed that ensemble spread particularly for near-surface variables such as 2m temperature are underdispersive. To overcome this deficiency, a series of sensitivity tests of near-surface 2-meter temperature to soil moisture initial states are performed using the NCEP operational SREF system for both warm and cold season cases. This talk will present the results from those tests including the variation of sensitivity with the structure and size of perturbations as well as with seasons. For NCEP regional ensemble system, you can go to <http://www.emc.ncep.noaa.gov/mmb/SREF/SREF.html>