Name: Paul Dirmeyer
pdirmeye@gmu.edu
George Mason University

Country: USA
Title: Does the NOAA global model take full benefit of land state information for subseasonal forecasts?
Additional authors: Ahmed Tawfik
Additional Affiliations: COLA
Abstract:
The soil moisture reservoir has a memory in the subseasonal timescale that potentially provides predictability beyond traditional weather forecast leads though its controls on the surface water and energy balances. We have examined a complete set of operational CFS forecasts across the 2013 boreal warm season to determine how this land-atmosphere linage operates in the real-time forecasts, how it compares to the suite of CFS reforecasts and reanalysis, as well as to offline Noah land model simulations from GLDAS. Comparisons are also made to numerous in situ measurements and metrics of land-atmosphere coupling derived from statistical inference. Model behavior suggests that key processes are not represented as they are in the real world, and this may reduce the ability of CFS to harvest the forecast skill provided in the realistic initialization of soil moisture states.
End