Subseasonal prediction of U.S. summer flash droughts

We examined the prediction skill of rapid onset droughts (a.k.a. flash droughts) in current-generation global forecast models participating in the Subseasonal Experiment (SubX) project. Focusing on the extreme U.S. Great Plains summer flash drought of 2012, we found that the prediction skill for subseasonal lead times (3-4 weeks in the future) is highly variable among models.

More skillful forecasts result from:
1) More accurate land initialization.
2) Accurate prediction of a quasi-stationary Rossby wave train in 2012.

The results imply that some models need to improve their land initialization and that we need a better understanding of the sources of Rossby wave trains.