

National Soil Moisture Network

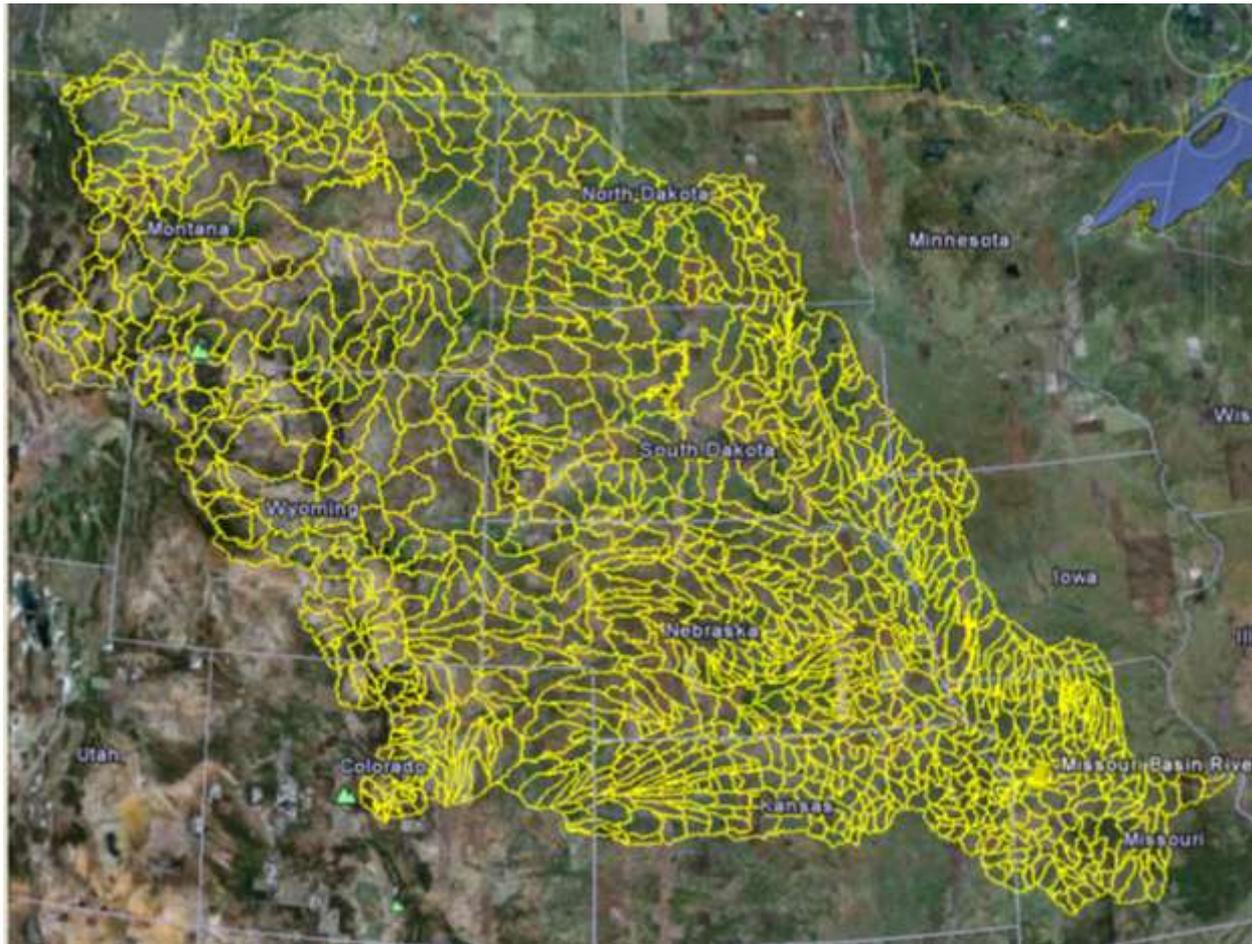
NOAA National Weather Service
Missouri Basin River Forecast Center

Kevin Low, P.E.
Service Coordination Hydrologist

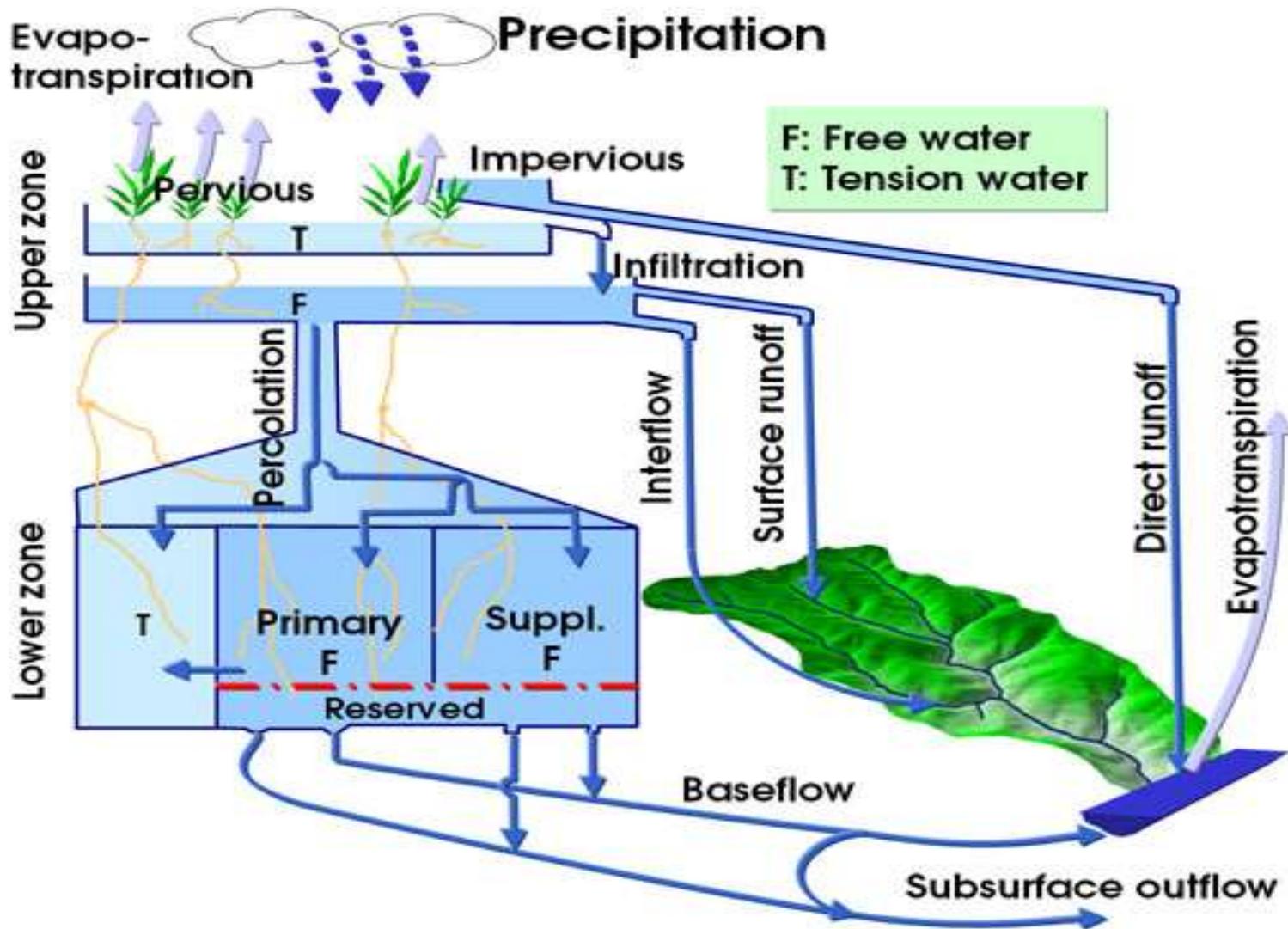
13 November 2013



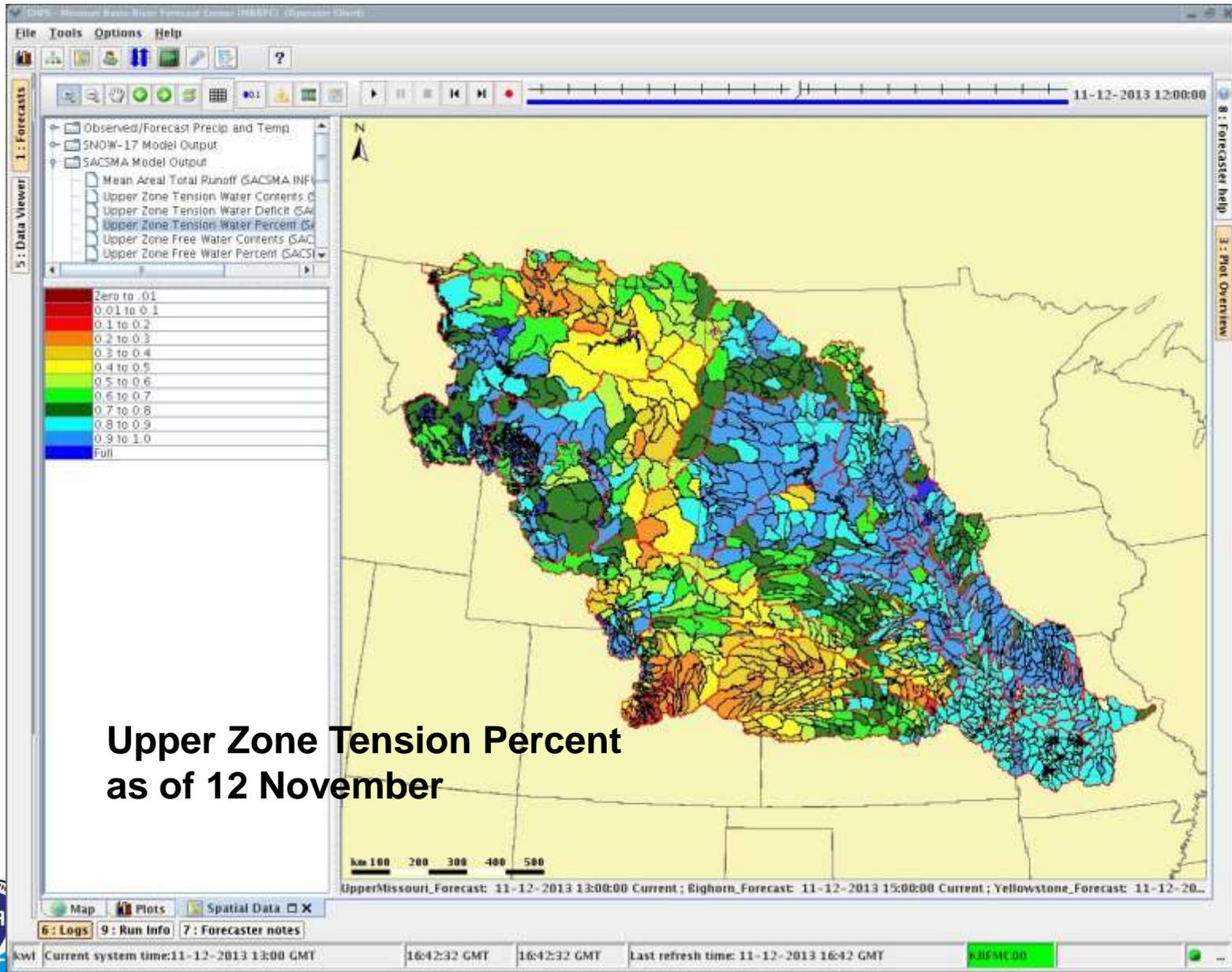
Missouri Basin River Forecast Center subbasin delineation



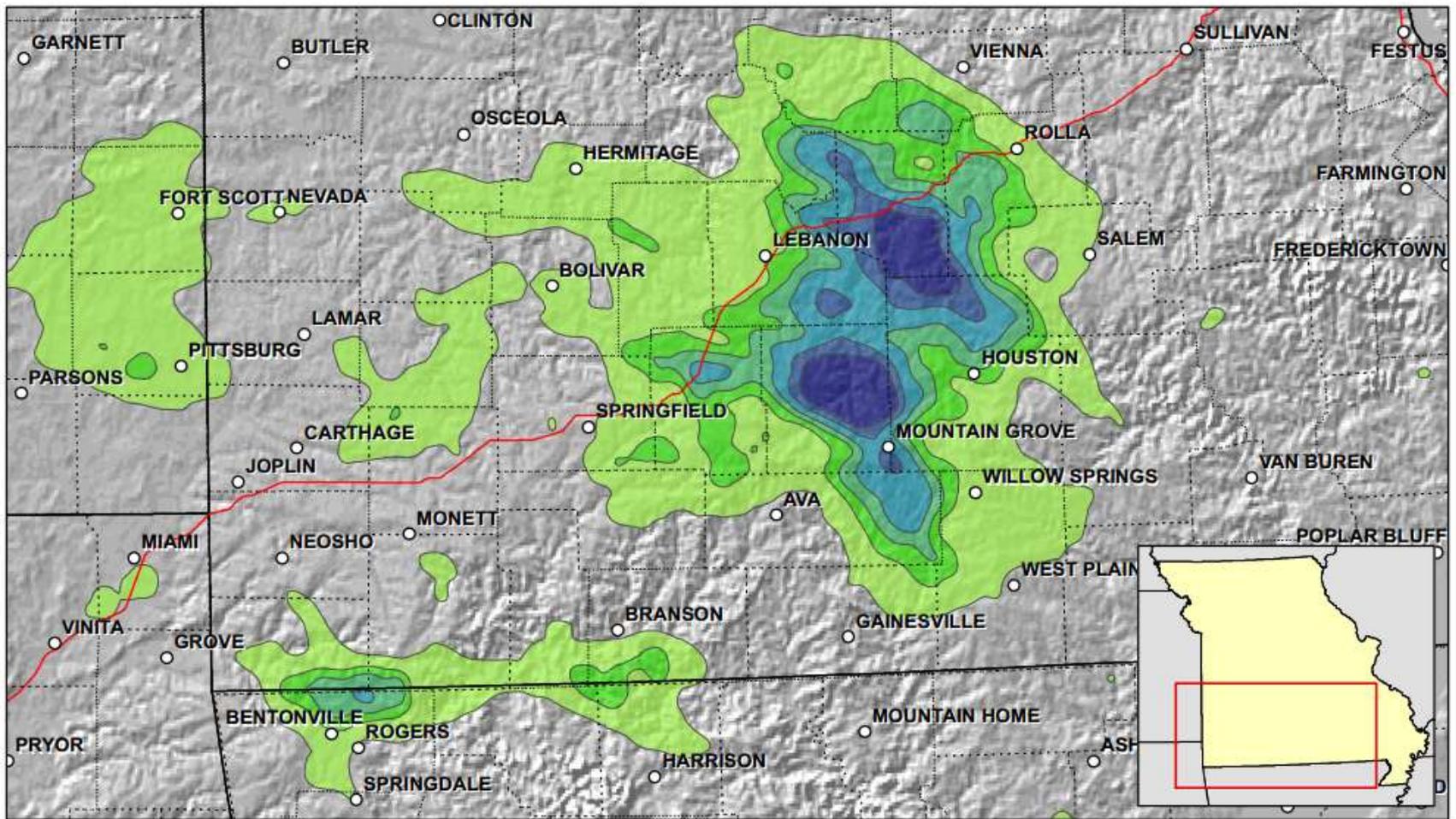
Missouri Basin River Forecast Center Sacramento Soil Moisture Model



One value per sub-basin



**Upper Zone Tension Percent
as of 12 November**



Missouri Flood Event, 29 July - 8 August 2013
Annual Exceedance Probabilities (AEPs) for Worst Case 10-day Rainfall

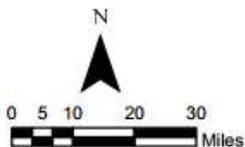
Hydrometeorological Design Studies Center
 Office of Hydrologic Development, National Weather Service
 National Oceanic and Atmospheric Administration

<http://www.nws.noaa.gov/ohd/hdsc/>

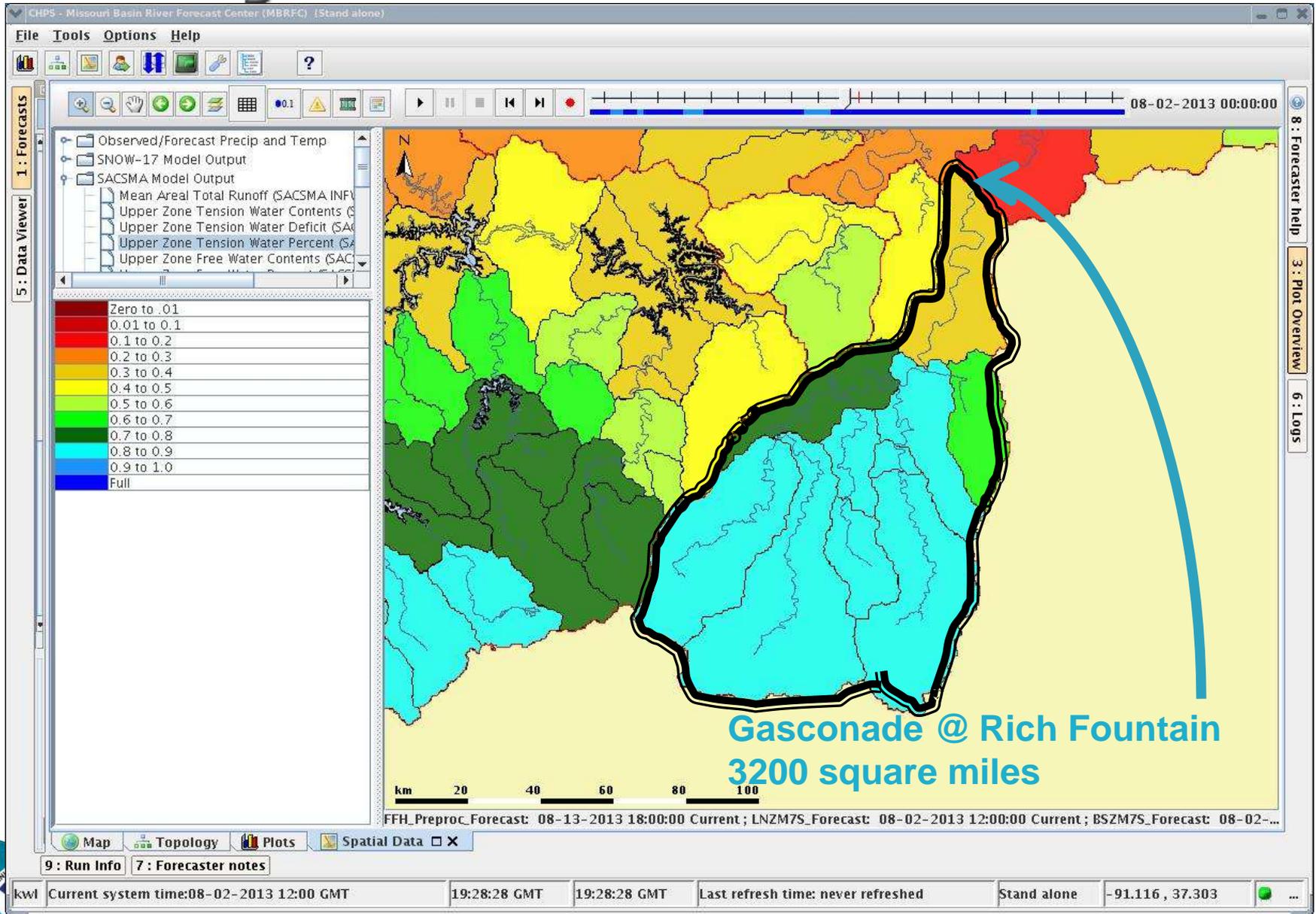
Created 13 August 2013

Rainfall frequency estimates are from NOAA Atlas 14, Volume 8, Version 2.
 Rainfall values come from multi-sensor data.

- > 1/10
- 1/50 - 1/10
- 1/100 - 1/50
- 1/200 - 1/100
- 1/500 - 1/200
- 1/1000 - 1/500
- < 1/1000

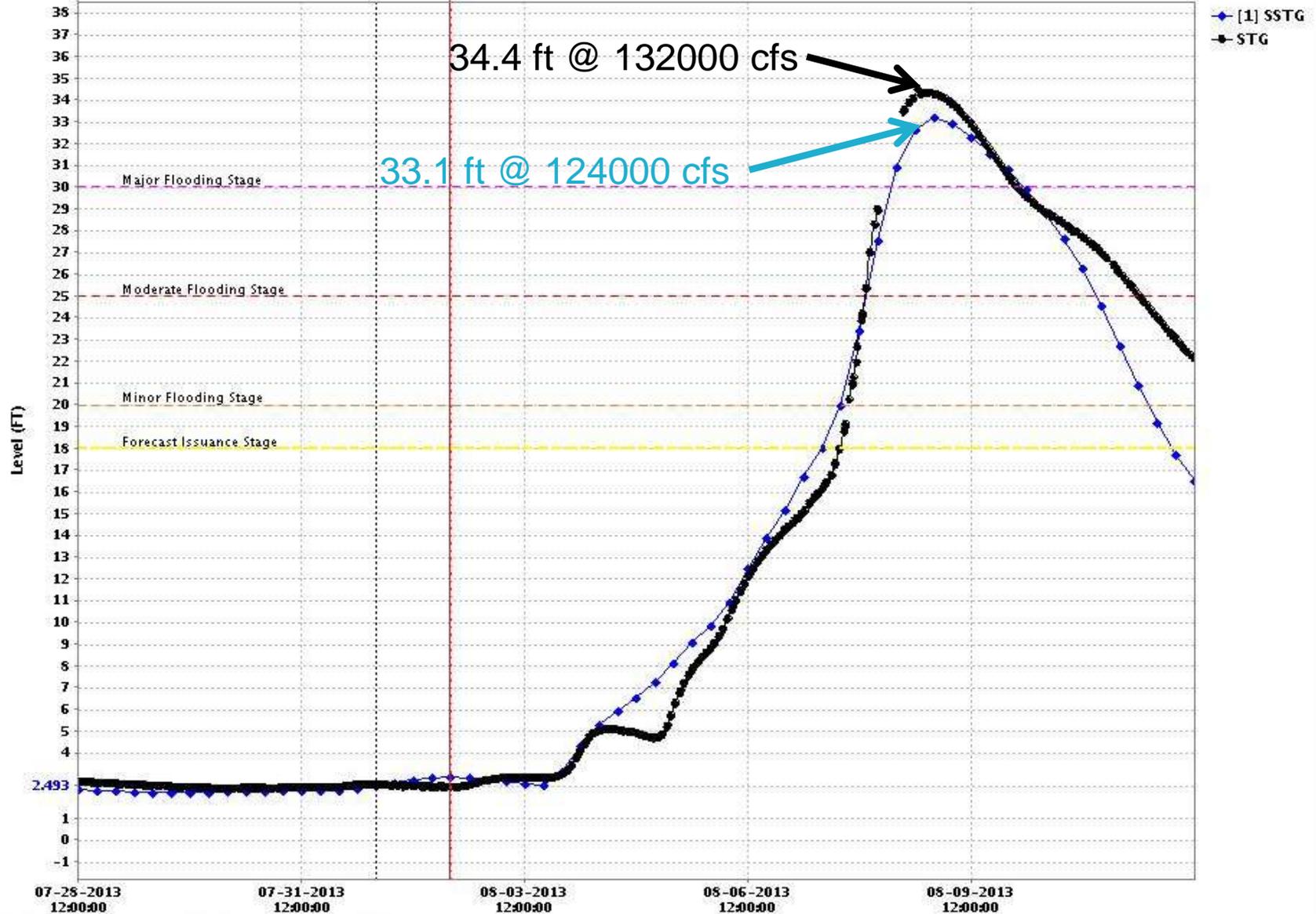


August 2013 Southwest Missouri



August 2013 Southwest Missouri

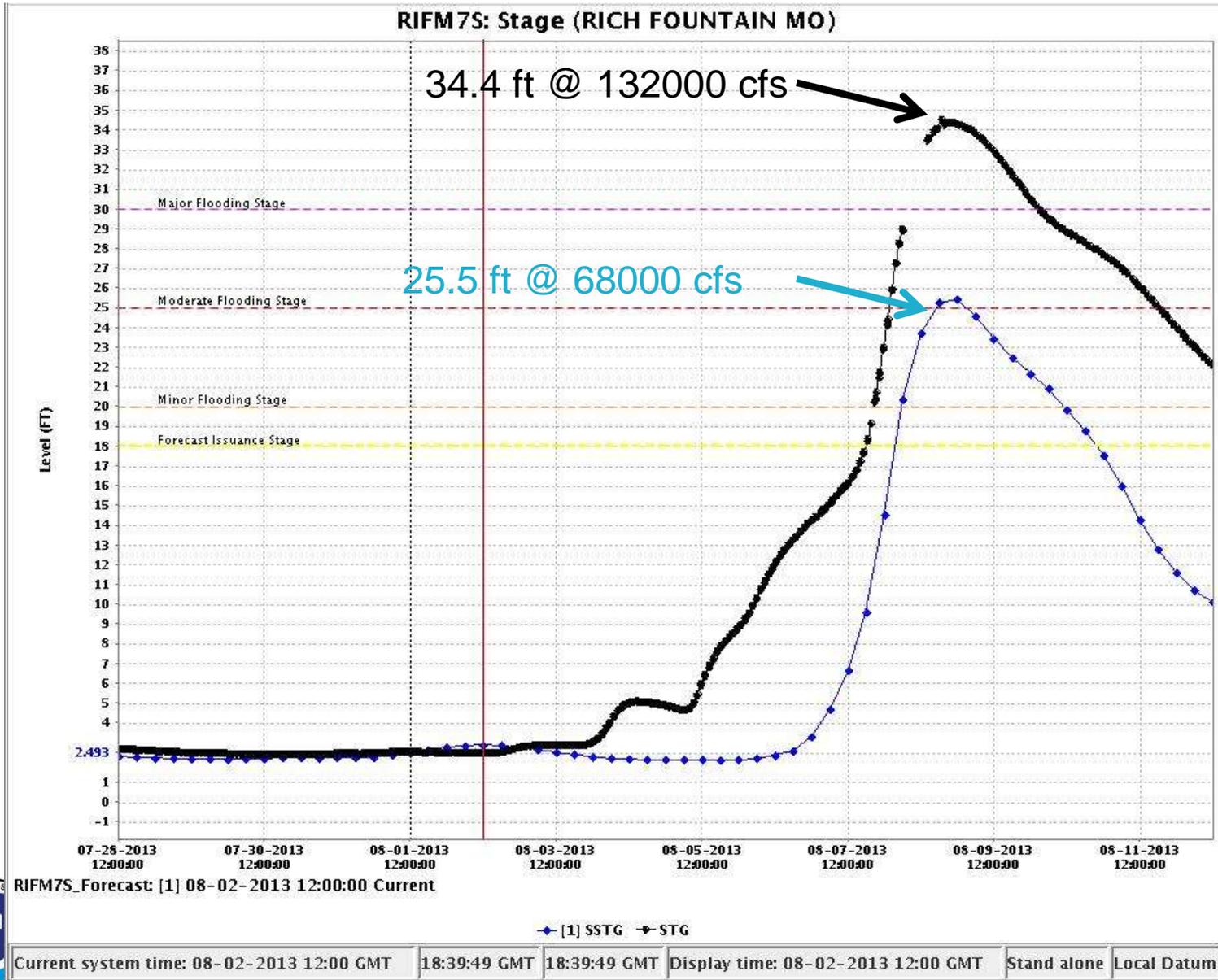
RIFM7S: Stage (RICH FOUNTAIN MO)



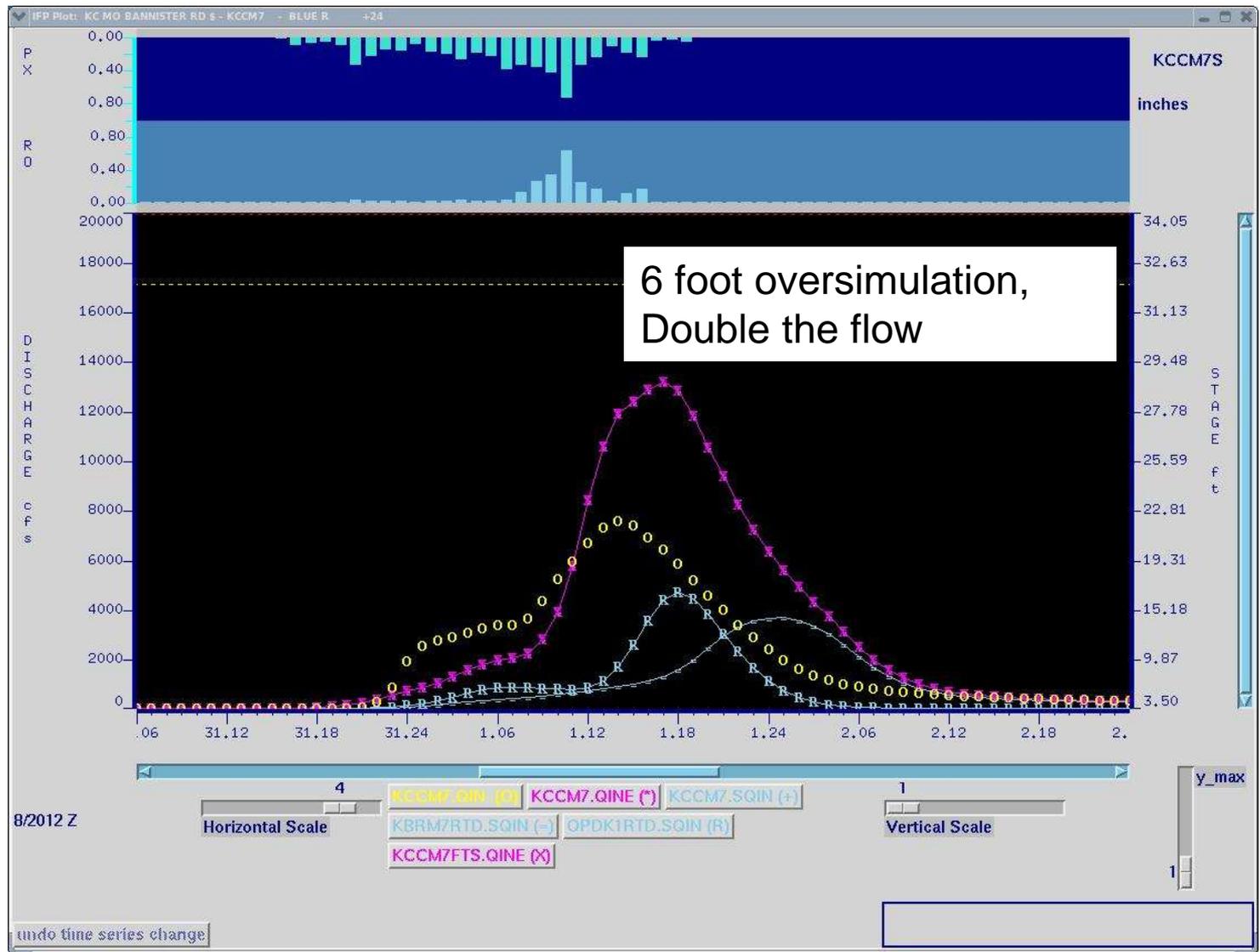
RIFM7S_Forecast: [1] 08-02-2013 12:00:00 Current



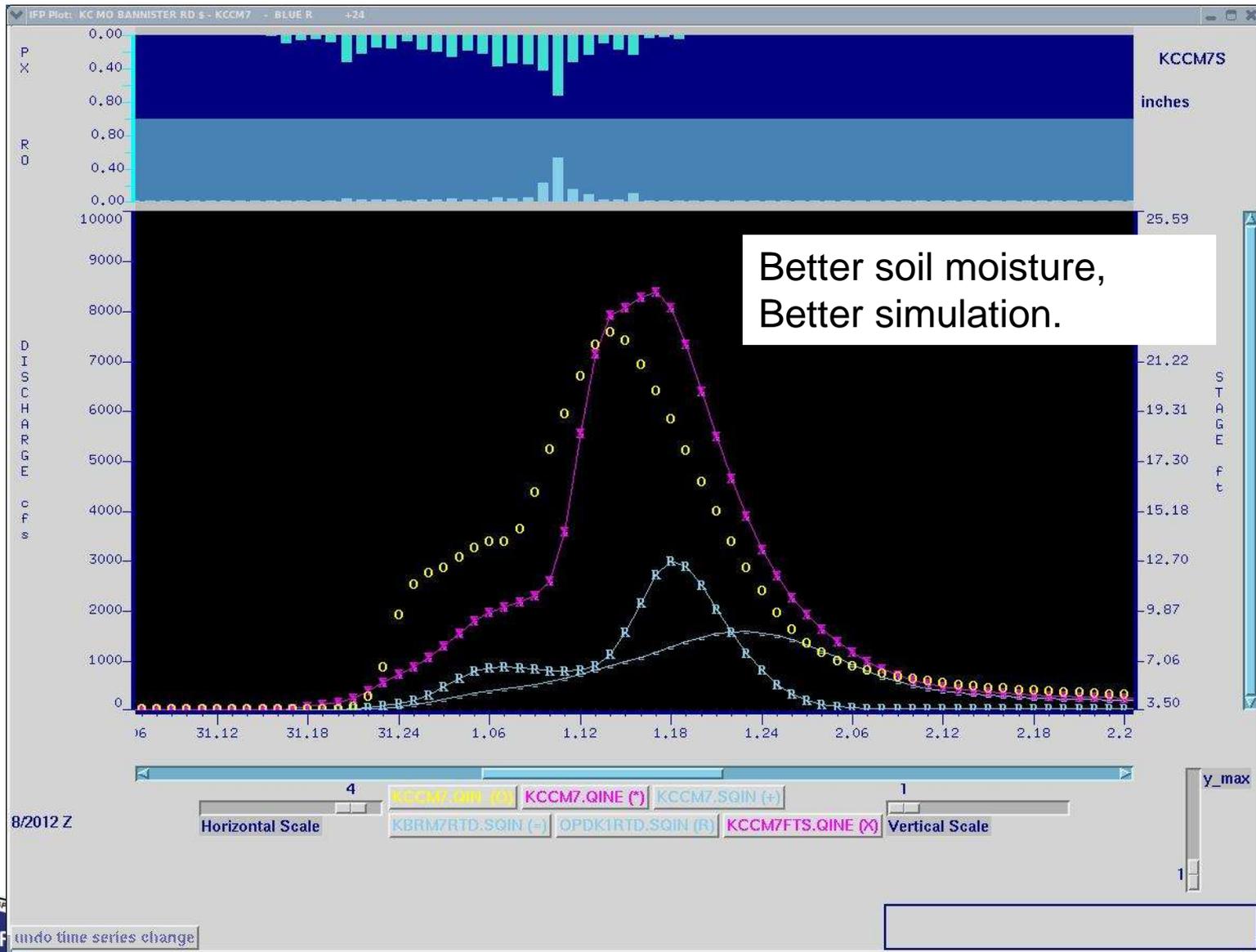
Starting event too dry



Remnants of Hurricane Isaac Aug-Sep 2012



Remnants of Hurricane Isaac Aug-Sep 2012



CHALLENGE

- No direct correlation between field observations and model parameters
 - NWS Office of Hydrologic Development has done work

BENEFITS

- Better flood forecasting
- Much better low flow forecasting
(water supply, navigation)
- Soil moisture forecasting???

