



2013 Spring Flooding

Christopher Strager

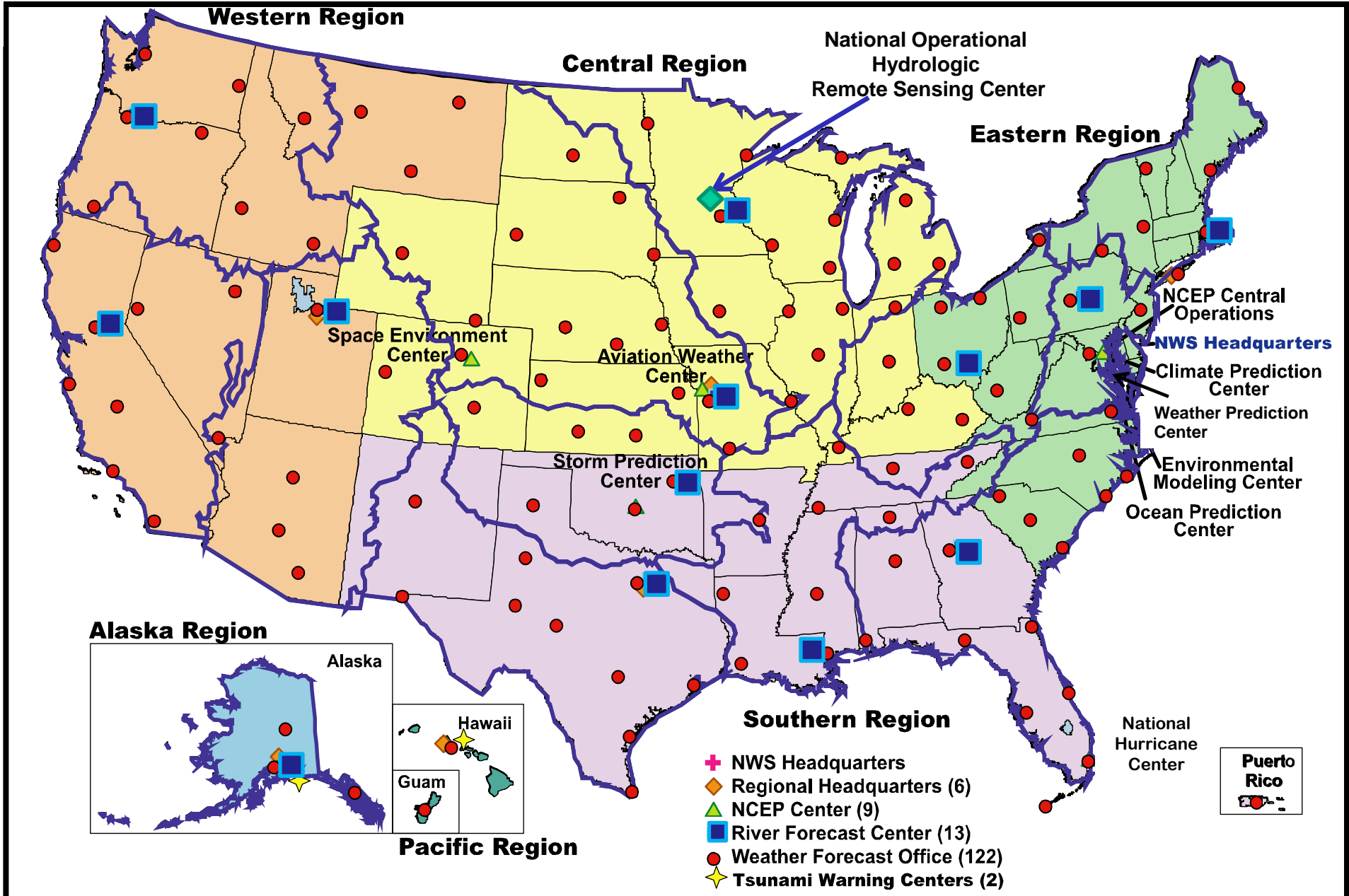
**Director, Office of Climate, Water and Weather Services
National Weather Service
National Oceanic and Atmospheric Administration**

May 2, 2013



NWS Operational Infrastructure

Leveraging national, regional and local assets to produce and provide life-saving forecasts and warnings

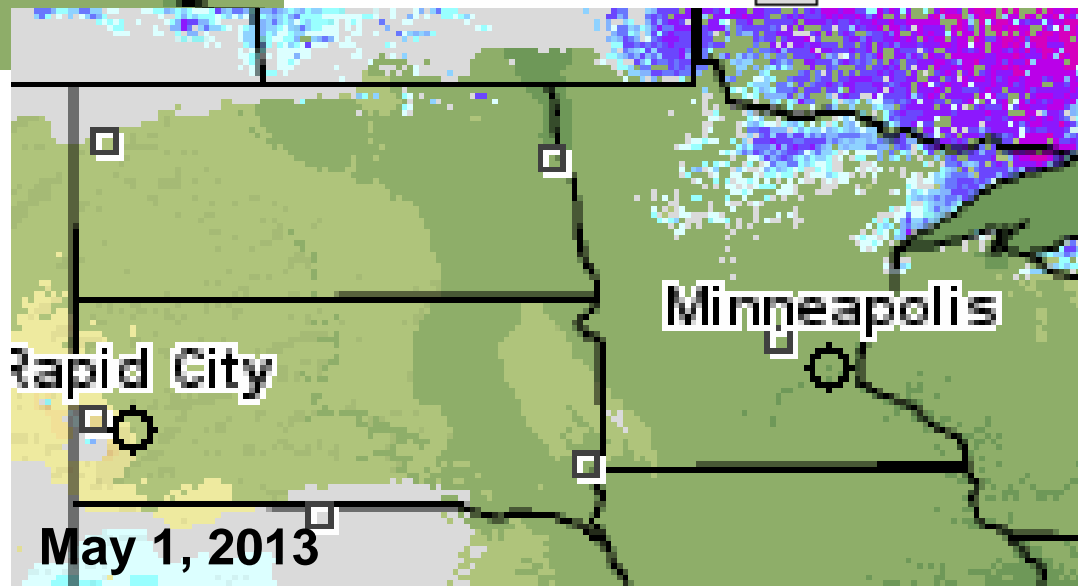
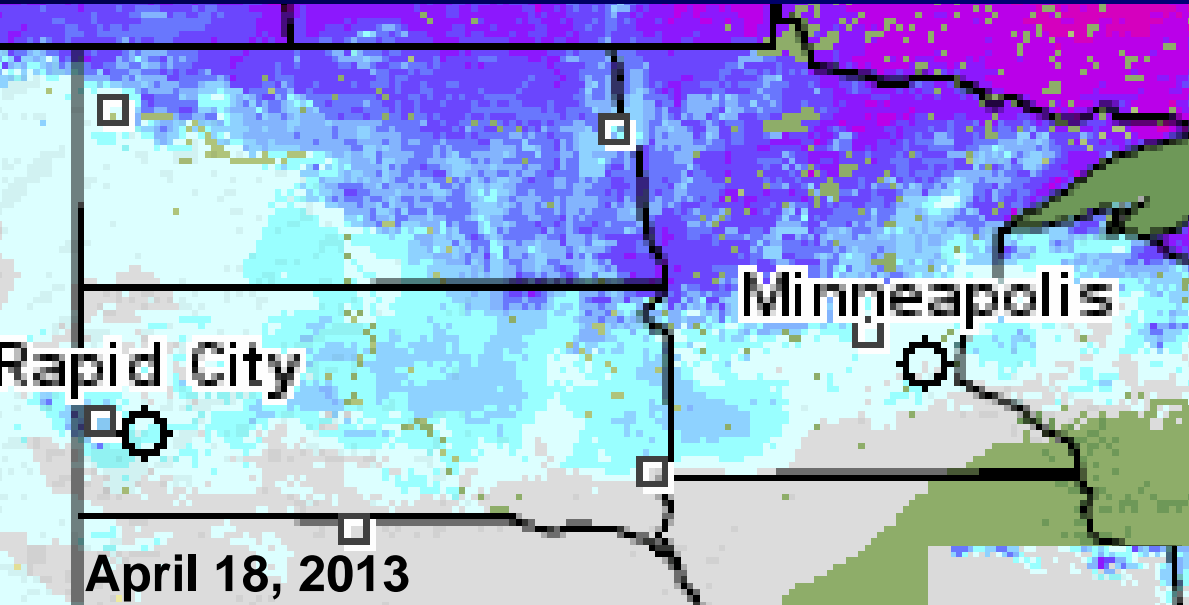




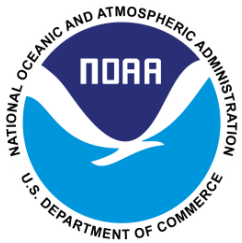
Observed Snow Water Content



5-8 inches of water content in the snow pack across Minnesota, North Dakota and South Dakota released in less than two weeks



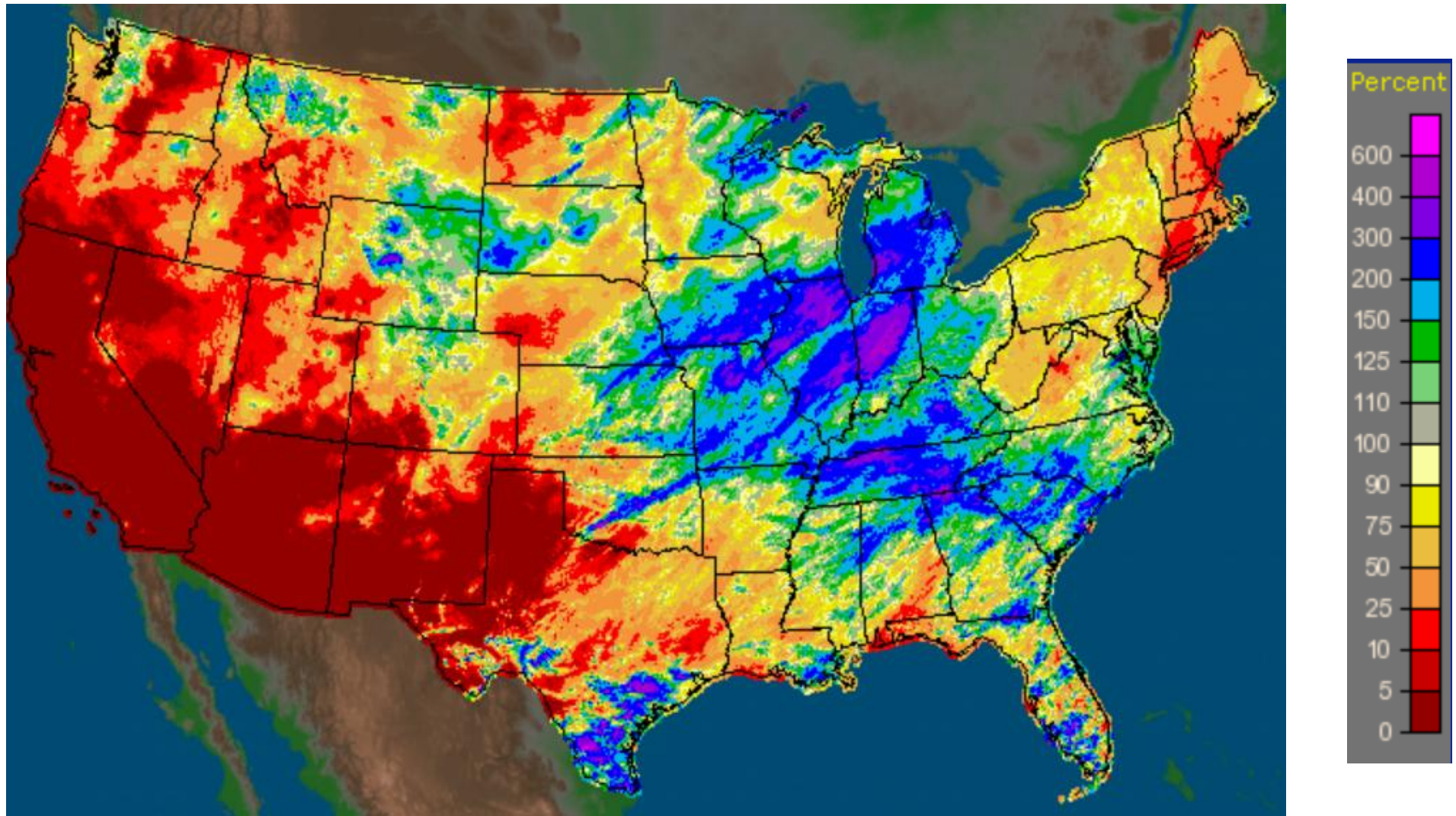
NWS
National Operational
Hydrologic Remote Sensing
Center (NOHRSC)
<http://www.nohrsc.noaa.gov/>



Percent of Normal Precipitation last 14 days



In the past two weeks a large area of above normal precipitation across the Midwest

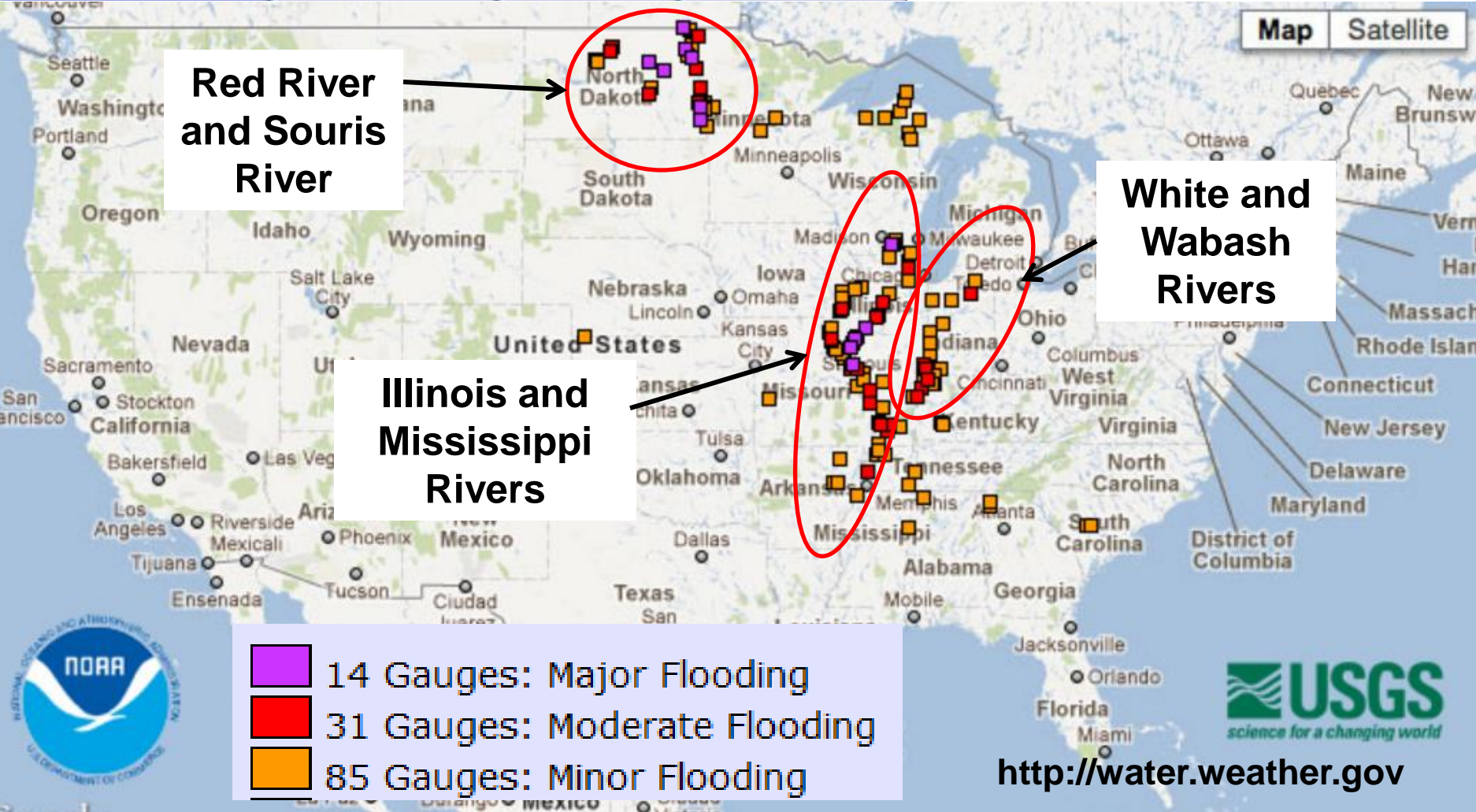




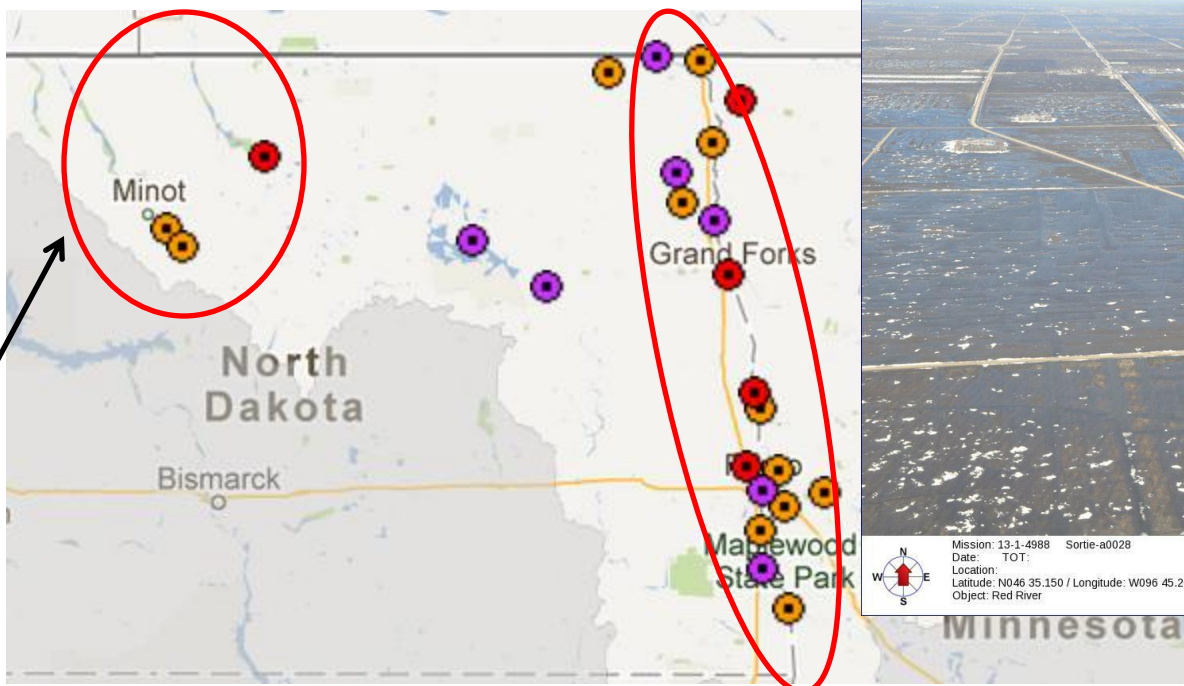
River Observations

Current Conditions - May 2

- River Observations
- River Forecasts
- Precipitation
- River Download



Souris River and Red River of the North



Souris River

- Flood warnings in effect through the Souris basin for overland and river flooding
- Increasing inflow to reservoirs, but sufficient flood control capacity remains

Red River of the North

- Flood warnings along entire Red River
- River crested at Fargo May 1st at 33.3 feet
- River crested at Grand Forks May 1st at 40.9 feet



Red River of the North and Souris River Federal Partner Collaborations



- Began bi-weekly coordination in February 2013 with Federal, Tribal, State, and Local officials (including Canadians).
- Snowpack and river conditions continually monitored with collaboration and coordination between NWS, USACE, USGS, FEMA, Saskatchewan Water Security Agency, Manitoba Ministry of Infrastructure and Transportation, and Environment Canada.
- Due to the historic nature of this Spring's late melt situation, the NWS used modified modeling techniques, in collaboration with USGS and USACE, to ensure the best information possible.
- Embedded Emergency Response Specialists to provide interpretive decision support services during the melt for FEMA, State and local Emergency Operation Centers.

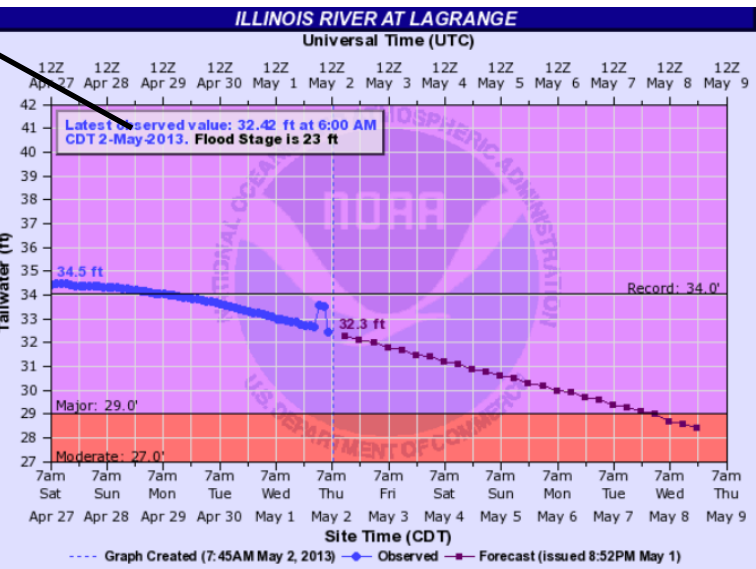
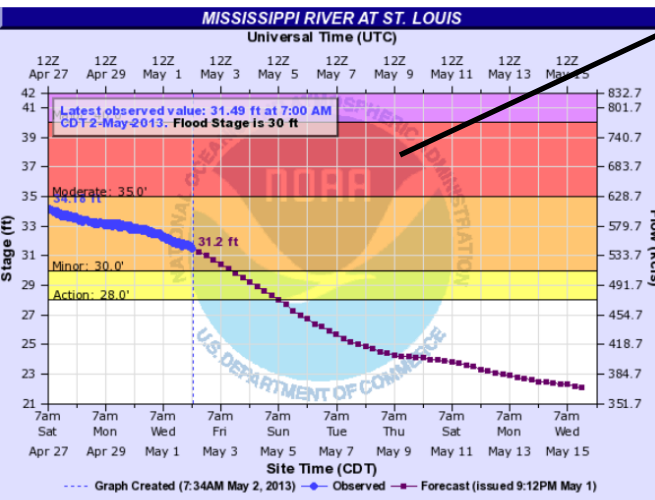
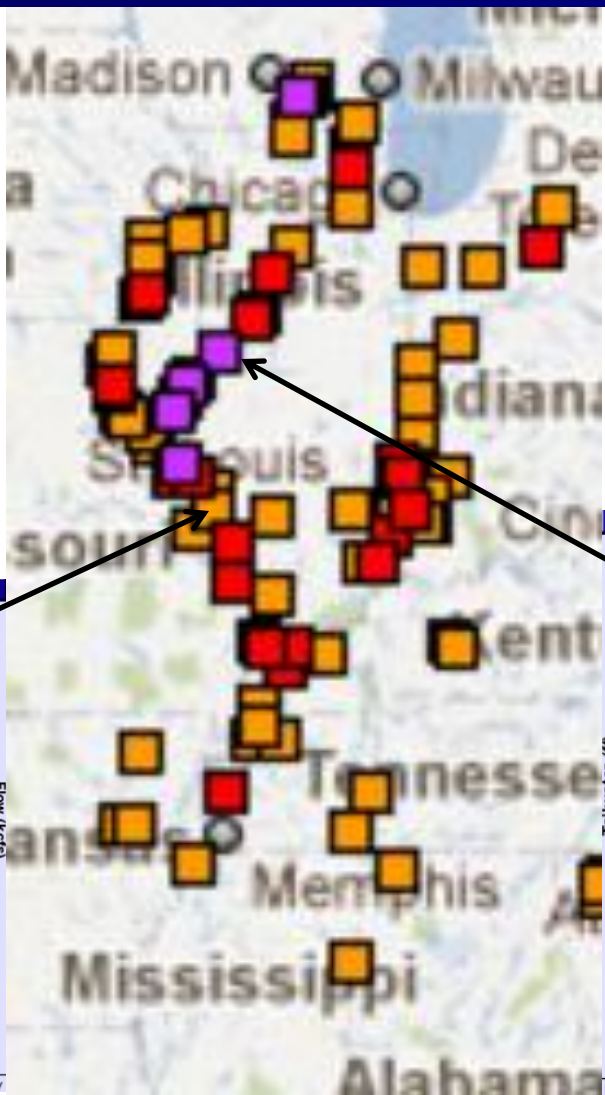
Decision support services foundational for
building a **Weather-Ready Nation**



Midwest River Floods



Major to record flooding along Illinois, Des Plaines, White, and Wabash Rivers. Major flooding along Mississippi. All rivers currently receding.



EADM7(plotting HGIRG) "Gage 0" Datum: 379.94' Observations courtesy of US Geological Survey

NLGI2(plotting HTIRV) "Gage 0" Datum: 413.5'



Midwest Flooding Impacts



Mississippi and Illinois Rivers

- Record crest on Illinois River at Peoria with significant flooding
- Rivers temporarily closed to navigation
- 114 barges broke loose Saturday 4/20; 9 sank
- Illinois governor declared disaster for 44 counties
- Several gates of Miss. River's Marseilles Dam damaged by barges.



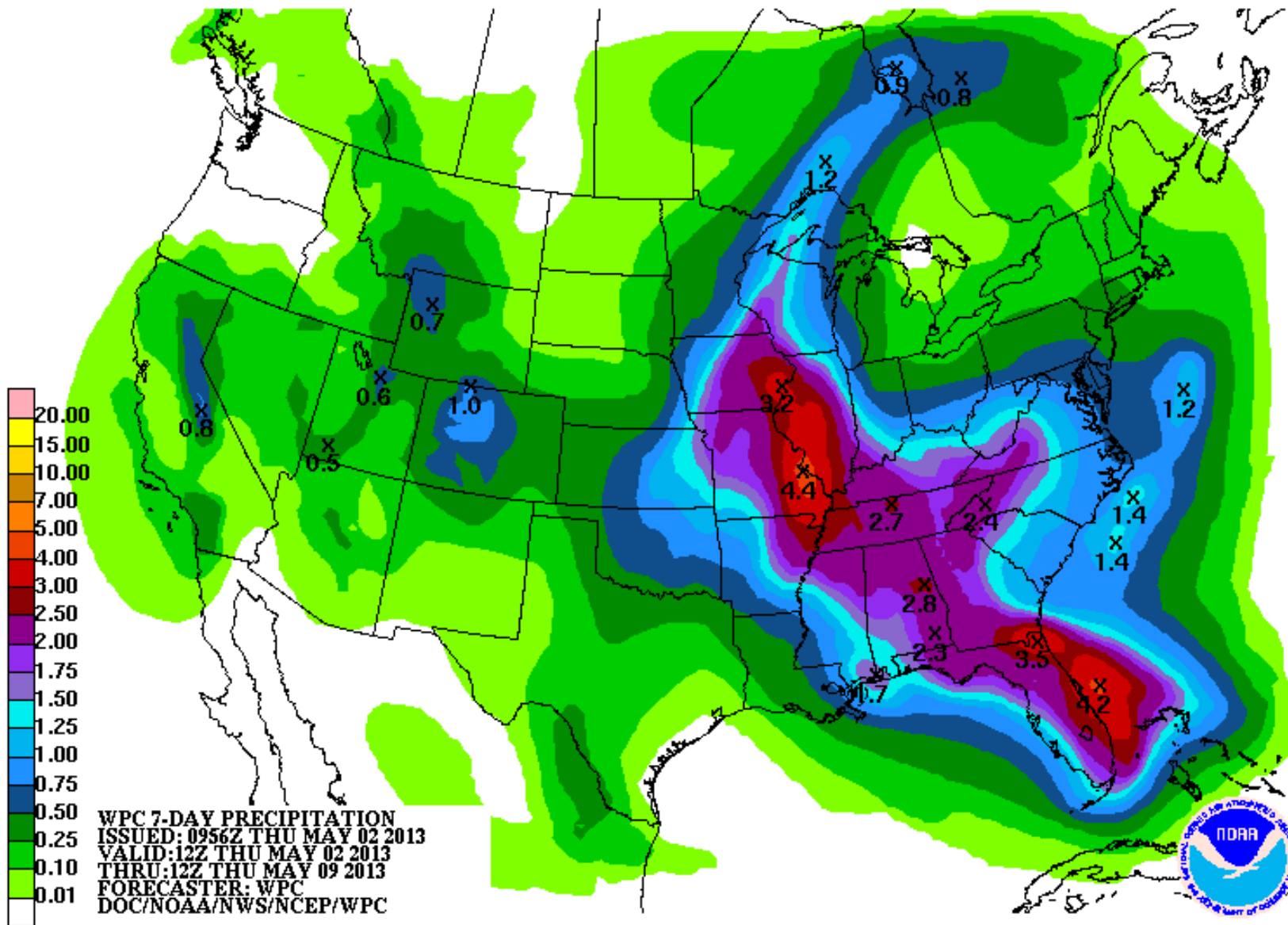
Wabash River – Indiana

- Several levees overtopped in a 40 mile stretch
- Levee failure in Vigo County has isolated trailer parks and 20 homes near Terre Haute.
- Many farmlands are flooded.





7 day Precipitation Forecast May 2 – May 9



River Forecasts

River Observations River Forecasts Experimental Long-Range River Flood Risk Precipitation

