

HPC 2011 Decision Support Services



Michael Eckert

NOAA/NWS/Hydrometeorological Prediction Center

Who/What is HPC?

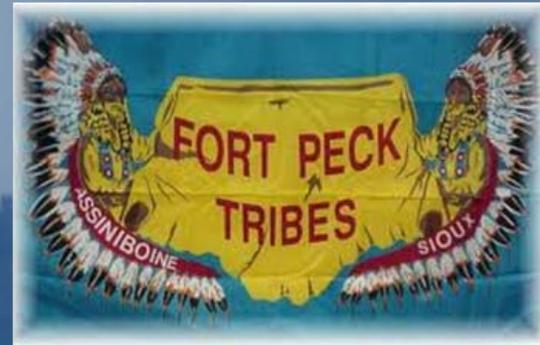
America's Go-To Center for high-impact precipitation events and forecast guidance

- Resource to NWS field forecasters, partners & customers
- River Forecast Centers
- Weather Forecast Offices
- DHS/FEMA/State EMA
- Media
- Private Met Services
- Aviation
- Other Federal/State agencies
- Citizens



HPC Decision Support

- HPC - traditionally issued a variety of forecasts out through day 7
 - Pre 2000 → generally limited to WFOs & RFCs
 - Post 2000 → gradual increase in coordination with “other” users
- Several large impact natural disasters since 2000
 - Led to more frequent and involved coordination
 - Wide variety of federal, state and local agencies

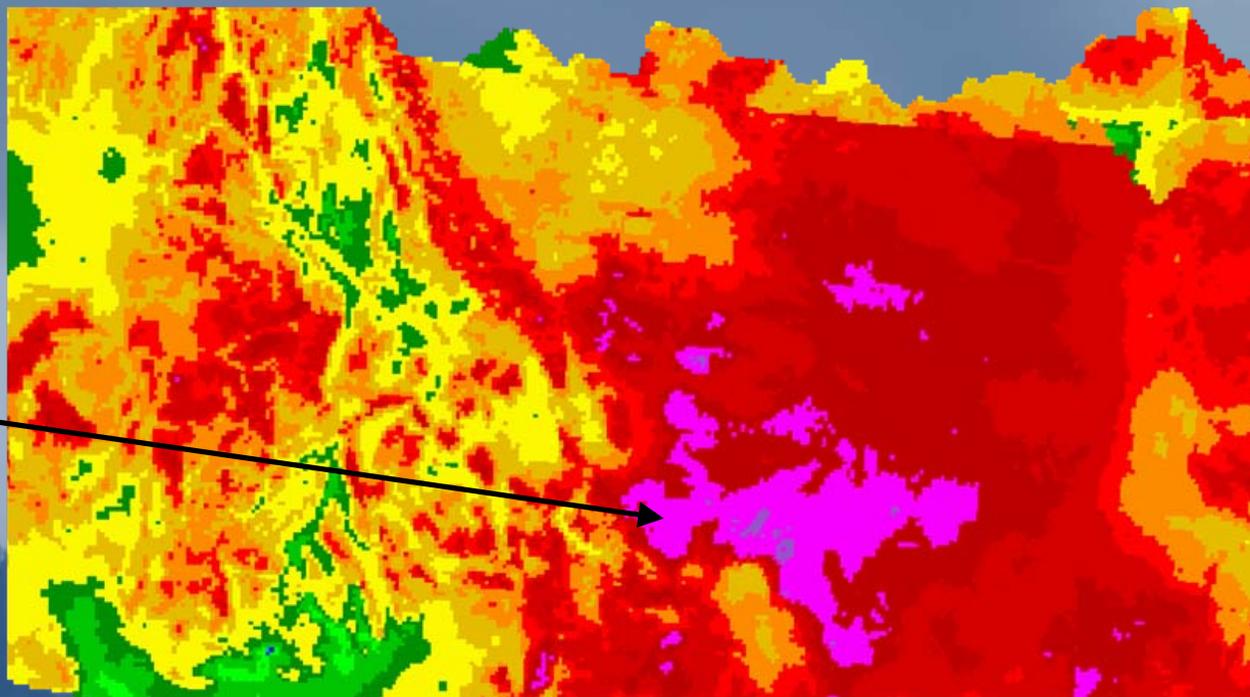


HPC Decision Support

- **Coordination methods**
 - Telephone (person to person)
 - Conference calls (multiple participants)
 - 12planet (one to several WFOs/RFCs)
 - On-site meteorologist (rare & costly)
- HPC has no strong preference on how we coordinate
- Which ever method is easier for our users

**Observed Montana
Precipitation - 05/11**

10-15"



HPC Decision Support (2011 List)

<u>Service</u>	<u>Event</u>	<u>Who</u>
Wind Forecasts	Fukushima	Japan
Precipitation Forecasts	April Floods/Severe WX	FEMA, NWSHQ, SPC
7 Day Precipitation Forecasts	Heavy Rain/Above Normal Snowpack	NWS, RFC
Precipitation Forecasts	Red River of the North Flood	NWS, RFC
Precipitation Forecasts	Howard Hanson Dam Repair	NWS SEA/COE
National Forecast Charts	Days 1-3	DHS/FEMA
Precipitation Forecasts	Ohio/Mississippi River Floods	LMRFC/OHRFC/COE/TVA
Precipitation Forecasts	Missouri River Flood	COE/MBRFC/Congress/NWS/Indian Tribes
Precipitation Forecasts	Hurricane Irene/TS Lee	FEMA/Hurricane Liaison Team/NWS/RFCs
Special Heat Index Forecasts	Central US Excessive Heat	NWS/FEMA/HHS/State EMAs

Red River of the North – WFO FGF

**Semi-daily briefings on
current weather and
upcoming precipitation
amounts**

**NWS/RFCs/FEMA/State
Agencies**



Hanson Dam Repairs – (2009-11)

Leaks discovered in 2009

Many towns, cities and a large industrial area located in the valley

Water lowered

COE requested 7 day precipitation forecasts in order to help them keep water levels in the 'safe' zone

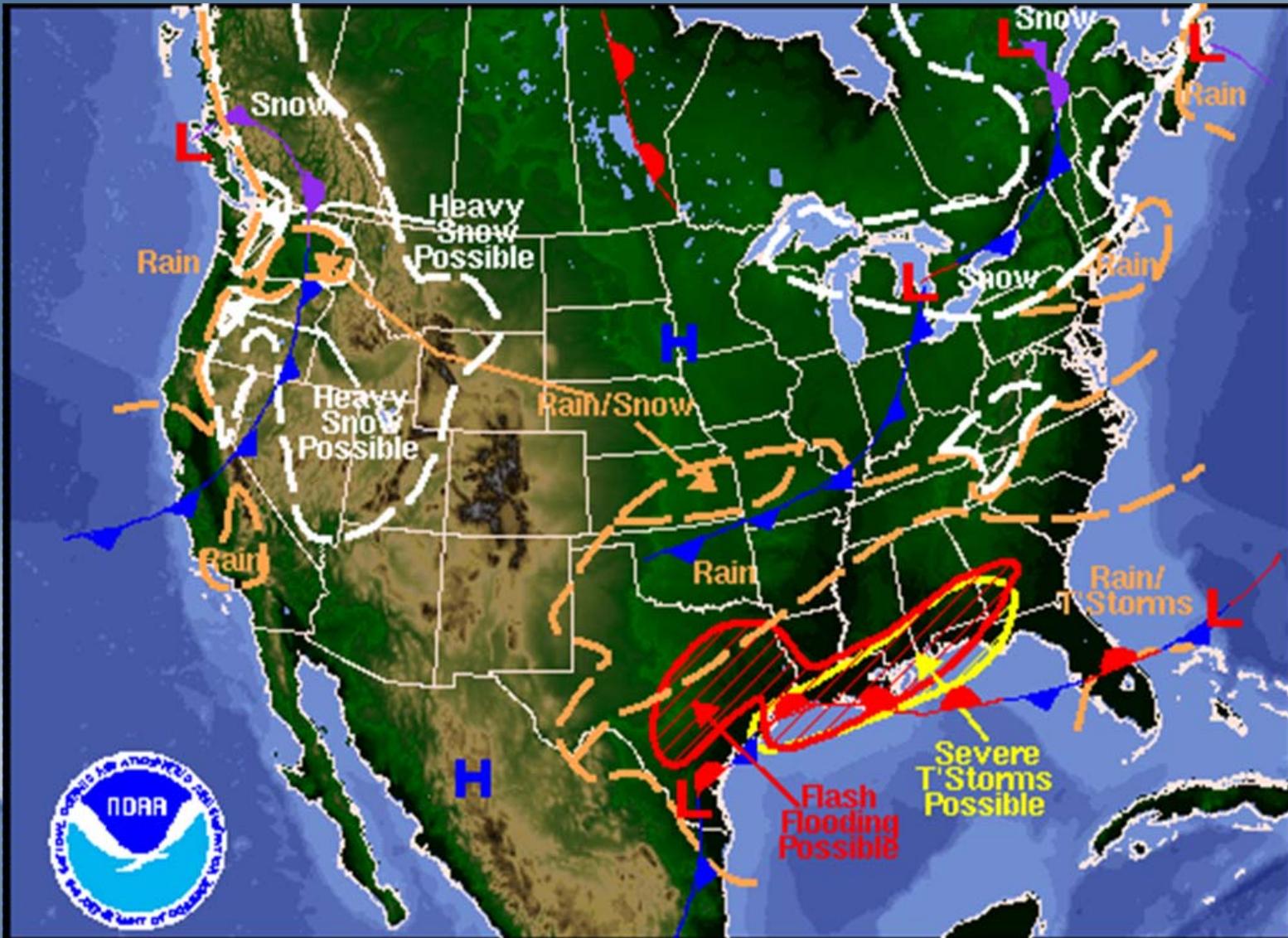
HPC developed an internal web site

Sent to WFO SEA & other users for Self-Briefings



National Forecast Chart

Expanded to day 3 (7 days a week) – FEMA/DHS



Day 1, 2 & 3
Issued once
each day @
5am

Day 1 updated
once per day
@ 5pm

Weather Forecast for Sat, Feb 18, 2012, issued 3:10 AM EST
DOC/NOAA/NWS/NCEP/Hydrometeorological Prediction Center
Prepared by Krekeler based on HPC, SPC, and NHC forecasts

Spring Flood Ohio & Mississippi Rivers

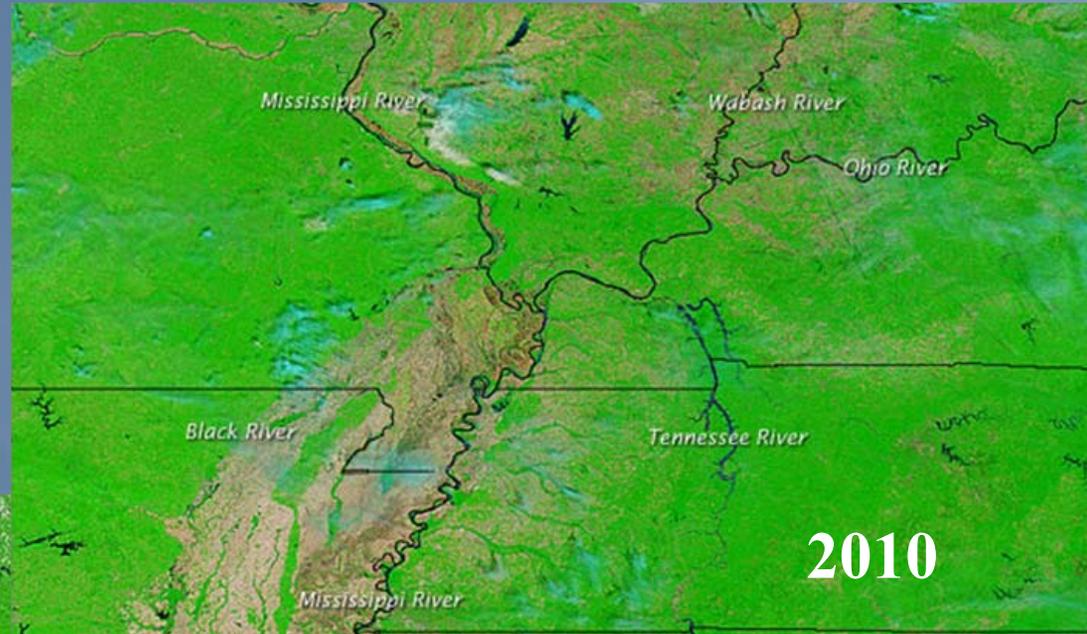
OHRFC/LMRFC/Army COE/TVA

Daily Briefings – 5/27/11-7/1/11 (Day 1-5 QPF, Extended Range precipitation outlooks (CPC))

MO river into MS

OH river into MS

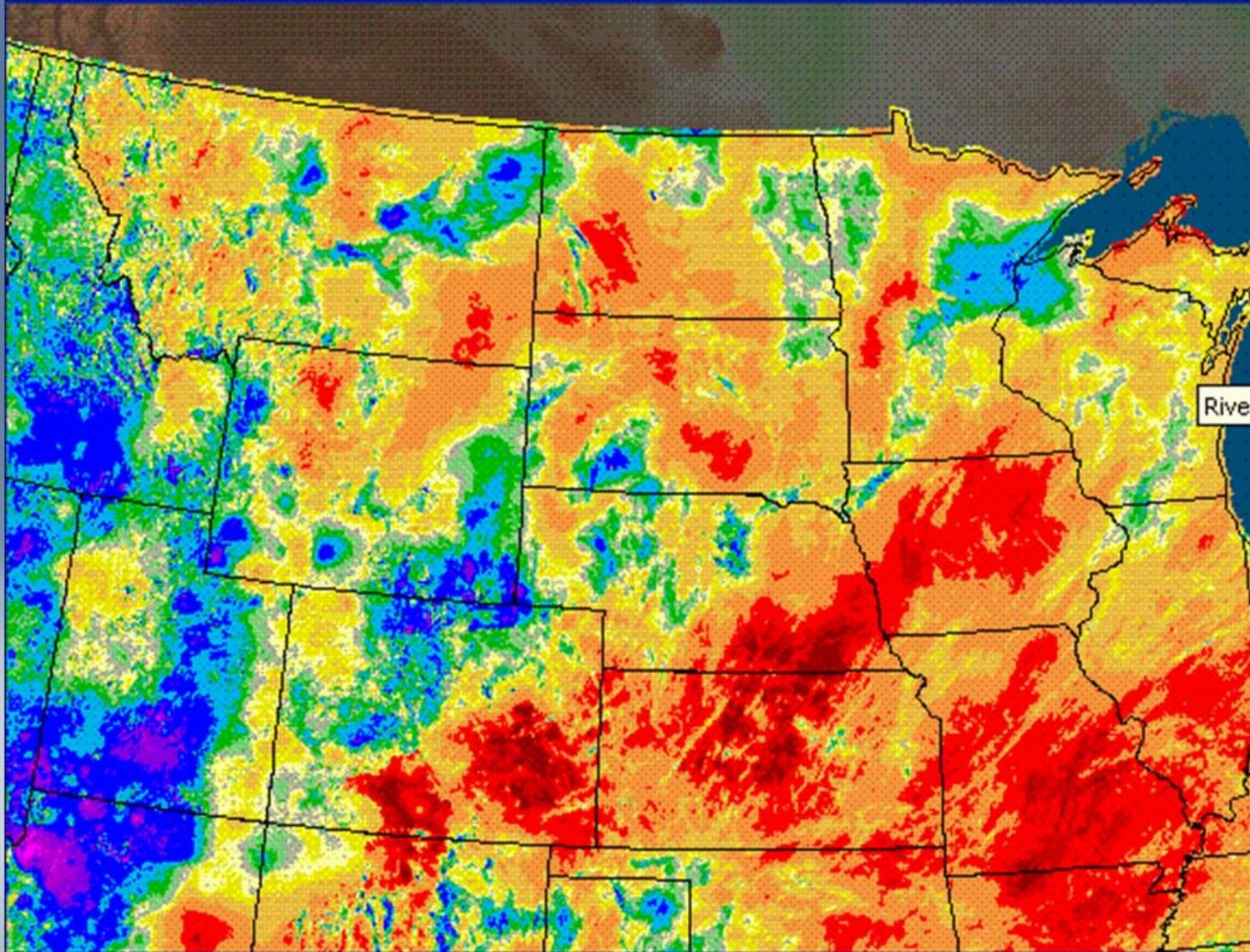
Record precipitation on both MO & OH



Levees blown/Flood gates opened to relieve pressure on other levees/Dams

Spring/Summer Flood Missouri River

NWS Central Region: October, 2010 Monthly Percent of Normal Precipitation
Valid at 11/1/2010 1200 UTC - Created 11/3/10 21:43 UTC



Anomalous (some record) precipitation amounts for almost one year

Spring/Summer Flood Missouri River

Army COE/MBRFC/CRH NWS/FEMA/State Agencies/Congressional Reps/Indiana Tribes

Daily Briefings – 5/27/11-9/29/11

Day 1-5 QPF, Severe Weather , Heat Index, Extended Range outlooks

One on-site meteorologist during June (fact-finding to help tune support and help users understand HPC products)



Hurricane Irene

Daily video conference briefings to the Hurricane Liaison Team

24 hour QPF and Storm Total

WFOs/NWS HQ & Regions/RFCs/DHS/FEMA/State EMAs



High Heat Index

5 day heat index forecast

Once per day Heat Index Storm Summary issued for Media

July 15-26, 2011

August 2-9, 2011

Frequent briefings for Federal/State agencies, including Health Departments

HPC Heat Index Forecast Page

www.hpc.ncep.noaa.gov/heat_index.shtml



OPERATIONAL HEAT INDEX FORECASTS RESUME ON 1 MAY 2012

[About These Products](#)

[DAILY MAXIMUM Heat Index Forecasts](#)

[DAILY MEAN Heat Index Forecasts](#)

[DAILY MINIMUM Heat Index Forecasts](#)

[GIS Formatted Heat Index Forecasts](#)

[Preliminary \(early\) Deterministic Heat Index Forecasts](#)

[Verification of Previous Summer Heat Index Forecasts](#)

[HEAT: A Major Killer](#)

[NOAA NWS Heat Index Chart](#)

HPC Decision Support Services

1. HPC is a 24/7 operation
2. Always ready for virtually any type of weather related briefings covering the United States
3. Senior Branch Forecaster (301) 763-8201
4. 12planet ID – hpc_LEAD

michael.eckert@noaa.gov