

Factors influencing June and July's Climate in NOAA's Climate Service Eastern Region

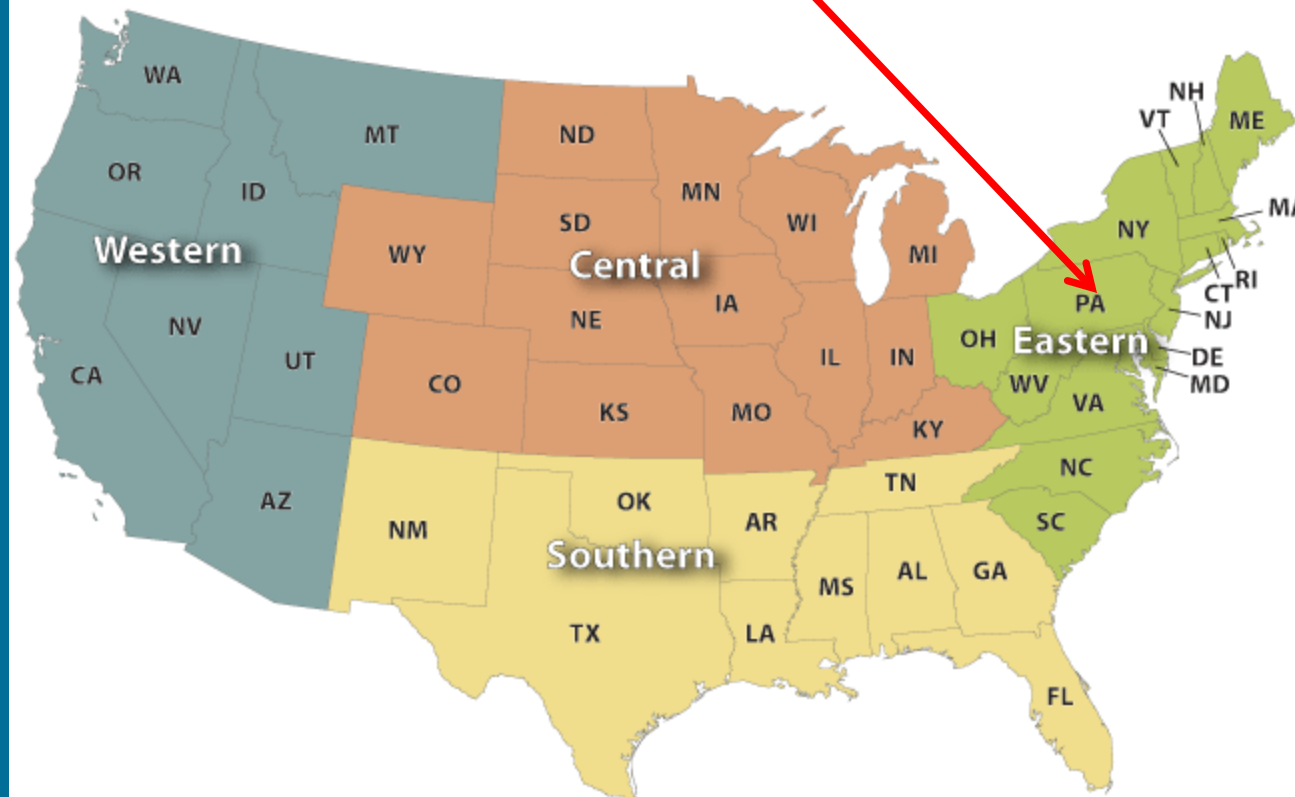
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NOAA Climate Service: Eastern Region

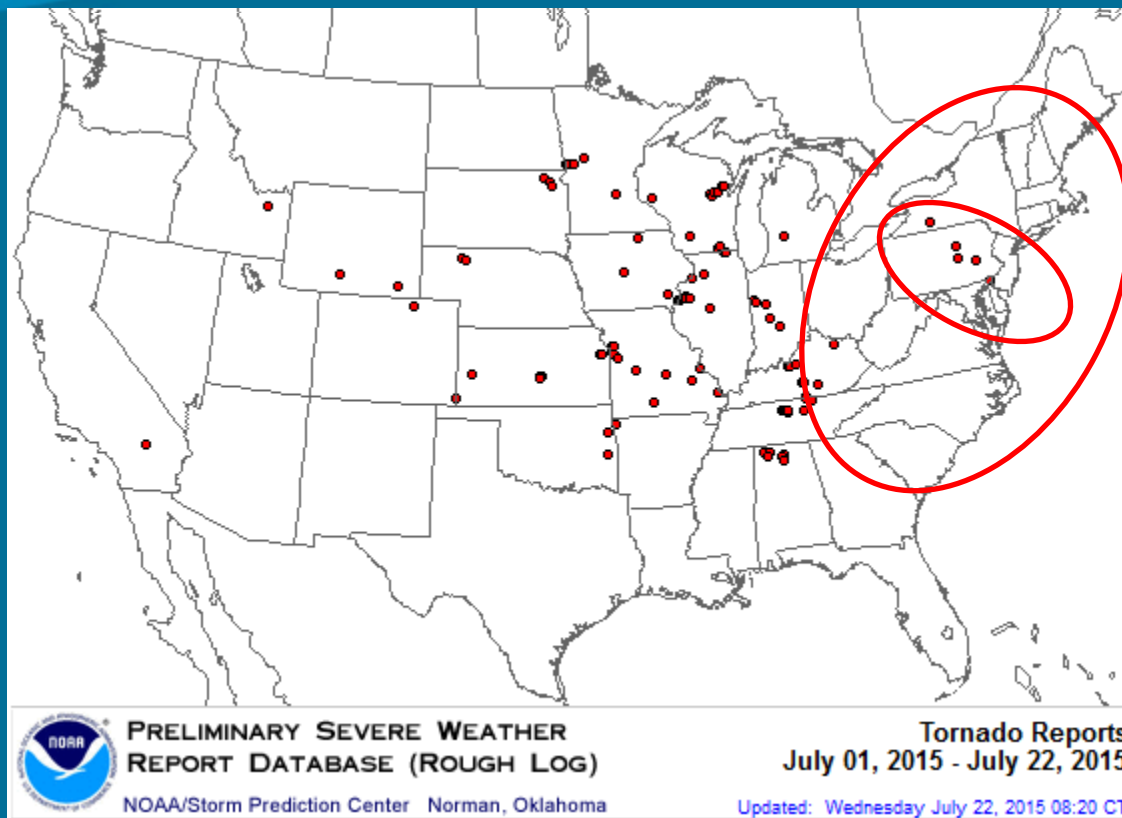
NWS Regions



Summary of Significant Hydro-Meteorological Events

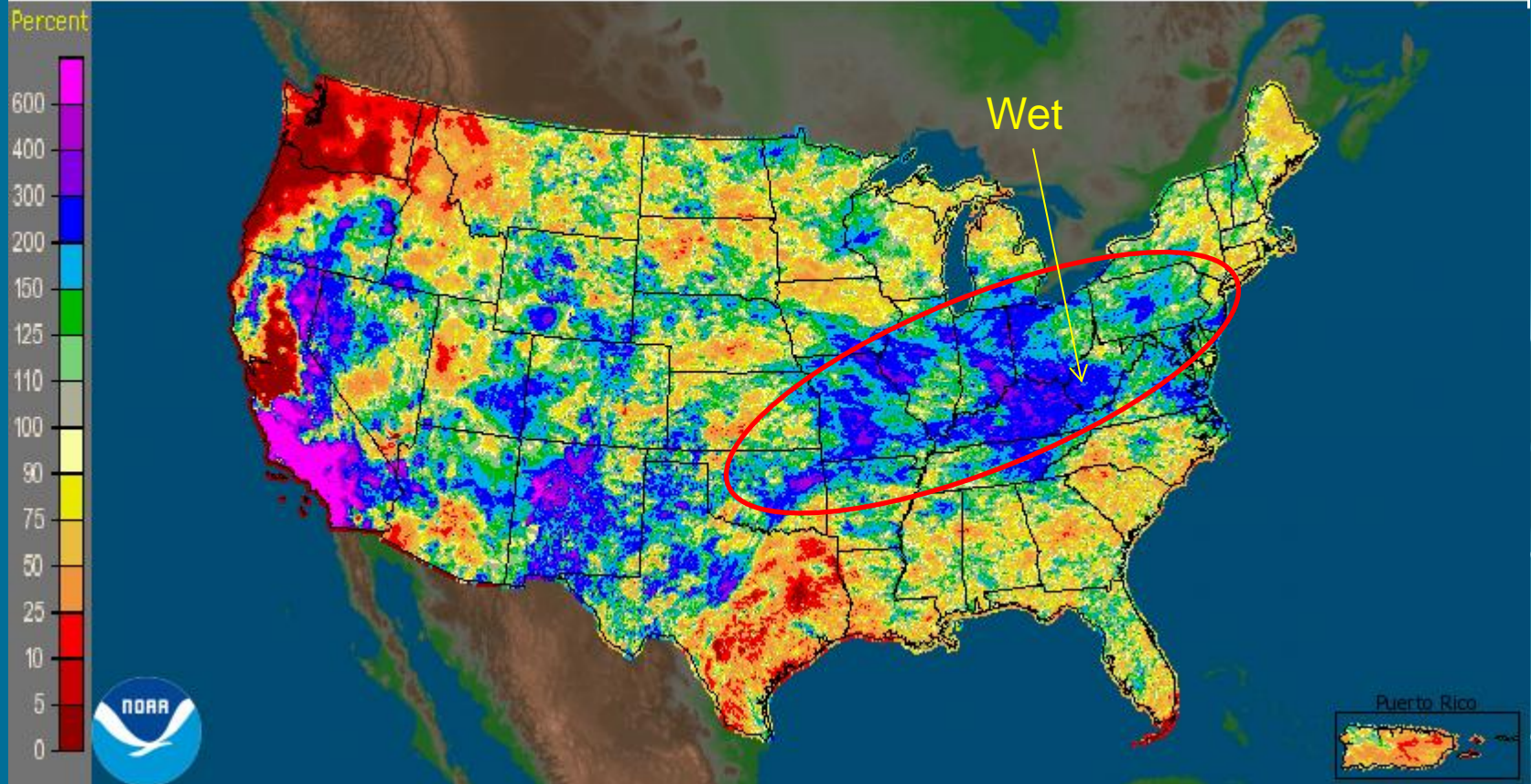
- Wet in much of the region.
 - Dry in far south and far north.
 - Cooler in the north part of the region.
 - Warmer in the south.
 - Flash floods.
 - There was some severe weather but the flash floods were the most significant.
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June and July Tornadoes

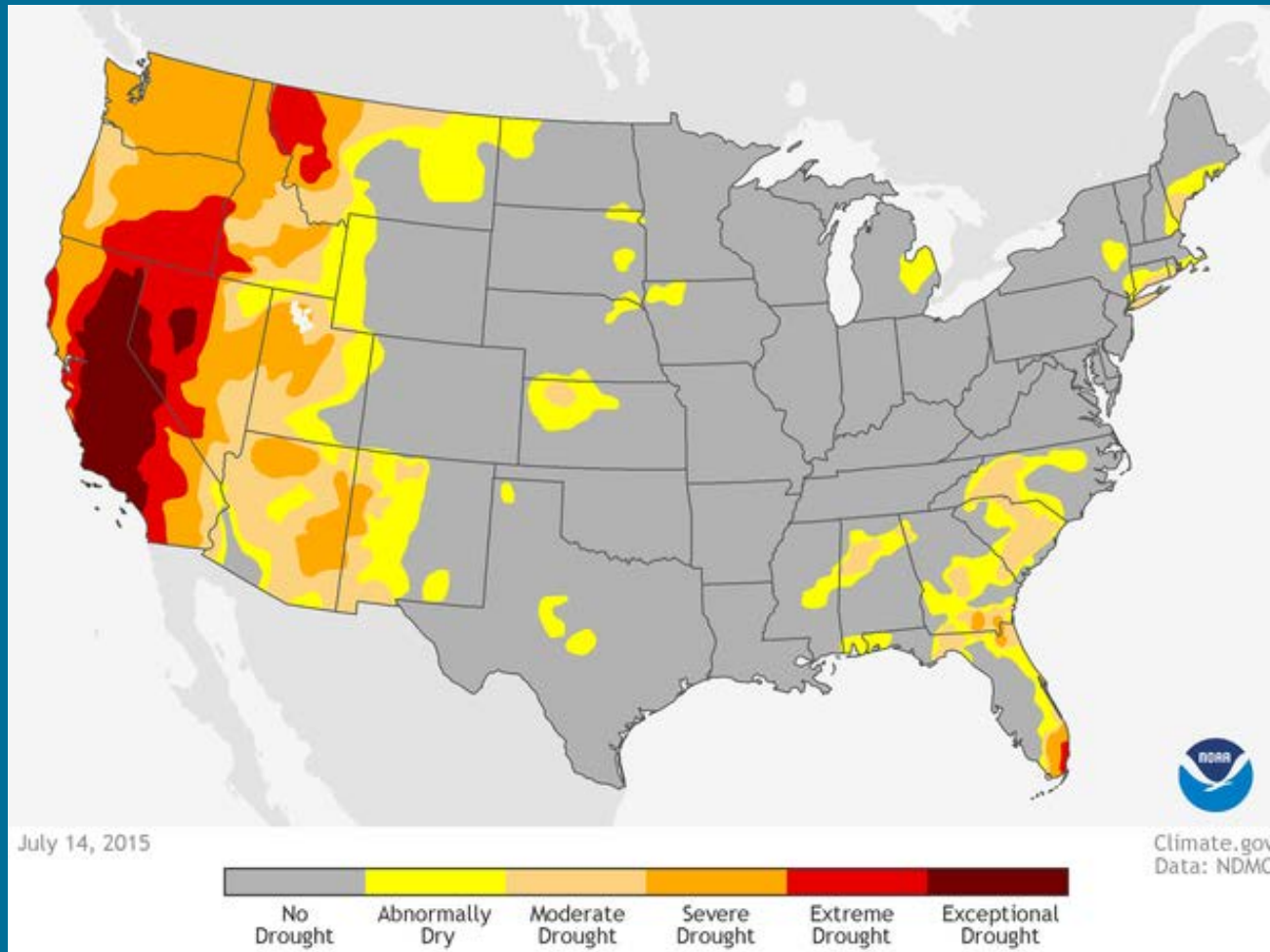


June and July Rainfall

CONUS + Puerto Rico: Current 30-Day Percent of Normal Precipitation
Valid at 7/22/2015 1200 UTC- Created 7/22/15 18:32 UTC



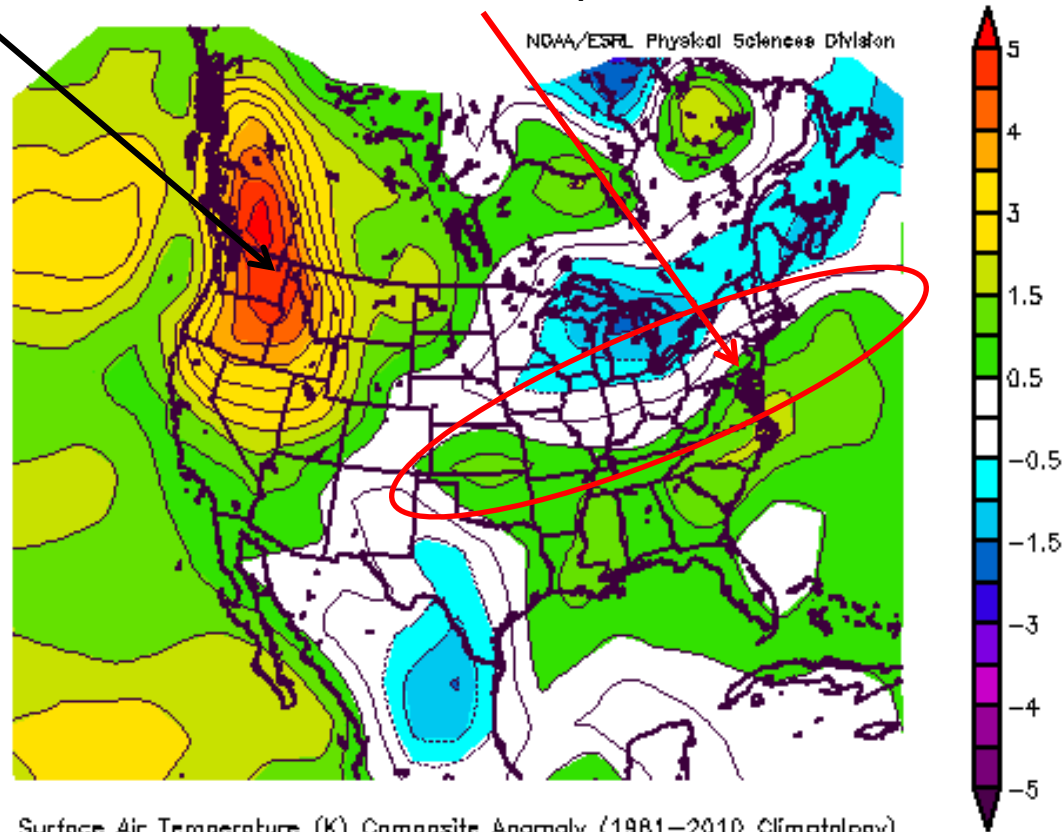
Drought Condition Changes from End of May to Present



NOAA Re-analysis Temperature Anomaly Data June 1-July 20th, 2015

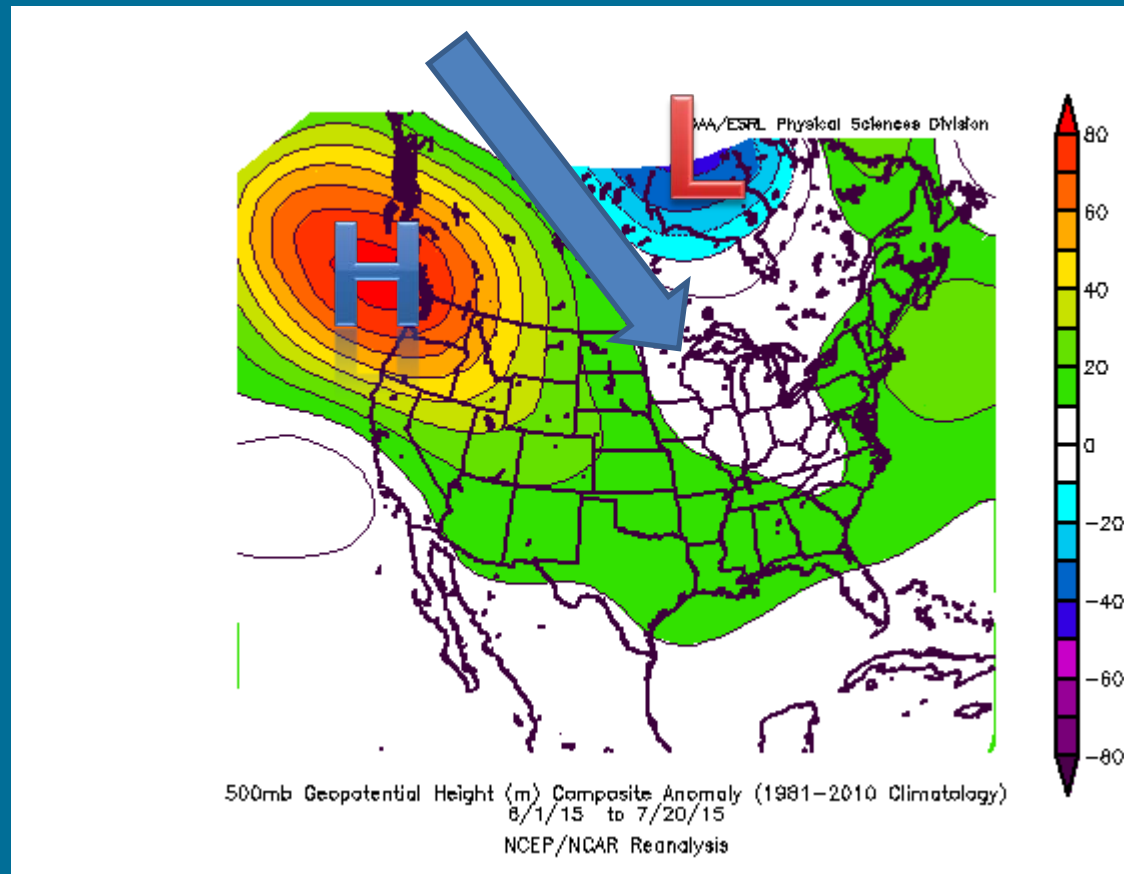
Exceptional
Warmth
(Heat!!)

Increased Temperature Contrast



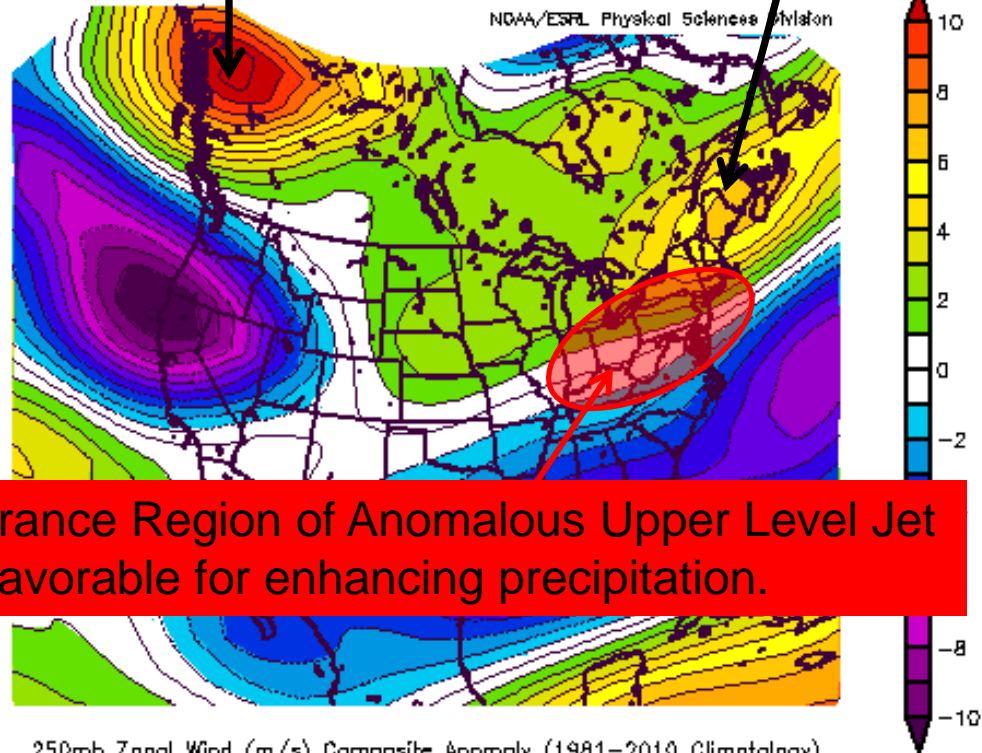
NOAA Re-analysis Geopotential Height Anomaly Data 500 mb June 1-July 20th, 2015

Enhanced Northwest Flow Aloft, more short waves/low pressure systems from the North Pacific make it to the eastern U.S. than what is “normal” for summer.



NOAA Re-analysis Zonal Wind Anomaly at 250 mb June 1-July 20th, 2015

Enhanced Westerly Jet Stream here and here



Right Entrance Region of Anomalous Upper Level Jet which is favorable for enhancing precipitation.

250mb Zonal Wind (m/s) Composite Anomaly (1981-2010 Climatology)
8/1/15 to 7/20/15
NCEP/NCAR Reanalysis

Summary

- Stronger than normal northwest flow aloft supplied the region with more short waves from the North Pacific than a typical summer.
- These waves of low pressure were enhanced by a stronger than normal upper level jet stream over northern New England.
- This put much of region under the favorable upper divergent portion of the jet stream.
- Result: wetter than normal many areas and flash floods.