

**MONTHLY REPORT OF HYDROLOGIC CONDITIONS**

REPORT FOR:  
MONTH            YEAR  
July              2014

TO: Hydrologic Information Center, W/OS31  
NOAA's National Weather Service  
1325 East West Highway  
Silver Spring, MD 20910-3283

SIGNATURE  
/s/ Gregory A. Hanson, SH WFO BTW

DATE  
08/13/2014

*When no flooding occurs, include miscellaneous river conditions below the small box, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924).*

An X inside this box indicates that no flooding occurred within this hydrologic service area.

July is the climatological peak of summer convection in the WFO Burlington forecast area, and July 2014 was no exception. There were five heavy rainfall events worth noting, with some isolated flash flooding. River gages remained well below flood stage however, as dry periods between the heavy rain episodes allowed soil moisture to dry and rivers to return to base flows.

On July 3 thunderstorms broke out in a warm unstable airmass ahead of a slow moving cold front. Some storms trained over southeast Franklin County and southwest Clinton County New York, producing two to 3 inches of rain in less than 3 hours. The return interval for one hour duration rainfall was near a one hundred year event (Figure 1), and isolated flash flooding resulted. There were two reports of road washouts in Franklin and Clinton Counties, and some basement flooding in Saranac Lake Village. Severe thunderstorms also moved through Rutland County Vermont with this system.

On July 8 a broken line of strong to severe thunderstorms moved through the forecast area, producing a half to one inch of rainfall. Basin average rainfall was relatively small however, and rivers responded with slight rises.

A Flash Flood Watch was issued on July 15 in anticipation of heavy rainfall spreading into the region. However the rain failed to materialize, and only southern St. Lawrence County NY received around an inch of rain. Elsewhere across the area there were reports of 1/4 to 3/4 inch rainfall.

On July 23 a line of severe storms moved through the area along a cold front. Much of Vermont received 1 to 2 inches of rain in a few hours. Conditions were dry preceding the rainfall and rivers responded with slight rises.

Heavy rainfall from slow moving thunderstorms on July 27 flooded a section of Route 22 between Peru and Plattsburgh NY.

Stationary thunderstorms developed in the early evening of July 28 over south central Windsor County in Vermont in the headwaters of the Williams River. Rainfall totals were two to three inches in a little over an hour, and the one hour return interval was a 50 year event (Figure 2). A flash flood warning was issued at 1930 UTC on 7/28/2014, and expired at 2330 UTC. State highways 11 and 103 and many local roads were washed out or closed due to flash flooding, and cars were washed away and houses impacted as well. There were many comparisons made to the flood damages from Tropical Cyclone Irene in 2011. Preliminary flood damage totals amounted to over \$1.5 million.

Rainfall amounts for July were widely varied across the Hydrologic Service Area, from two inches in the northern Adirondacks to over eight inches in Windsor County Vermont (Figure 3). Departures from normal varied accordingly, from two inches below normal to 4 inches above normal (Figure 4).

Significant River Crests  
July 2011  
WFO Burlington VT

-none-

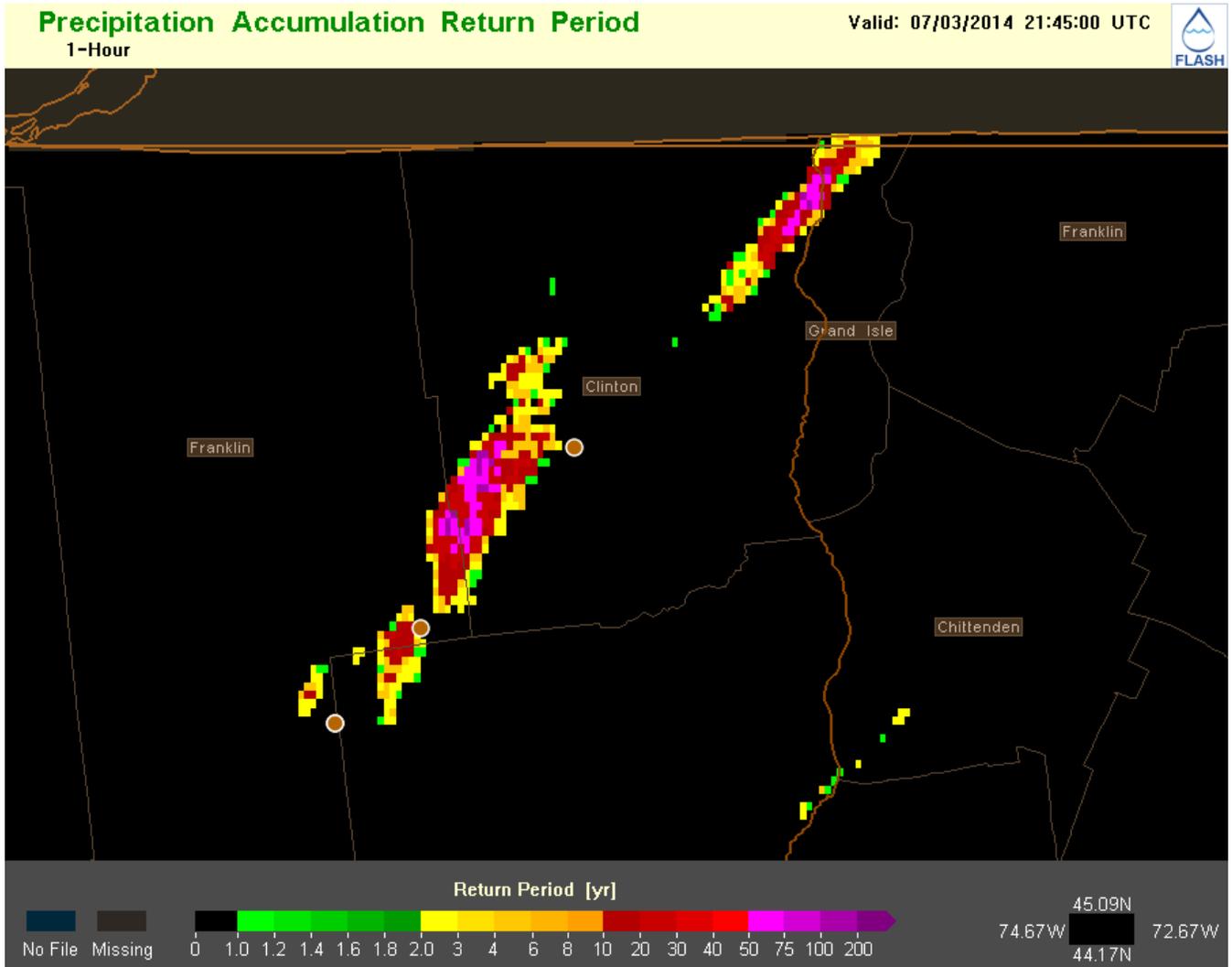
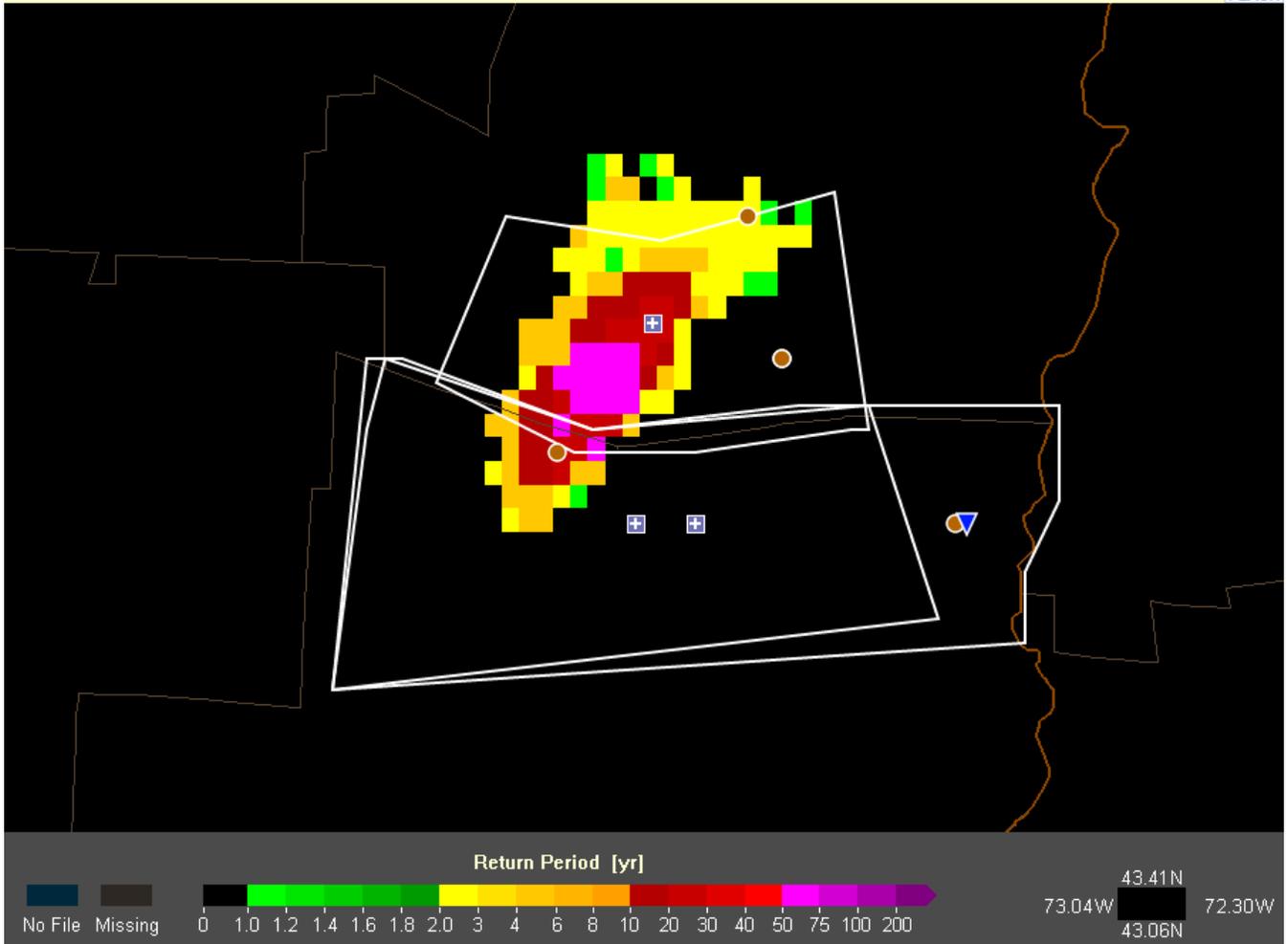


Figure 1, 1 Hour Precipitation Return Period valid 21:45 UTC 7/3/14

**Precipitation Accumulation Return Period**  
1-Hour

Valid: 07/28/2014 20:15:00 UTC



**Figure 2, 1 Hour Precipitation Return Period valid 20:15 UTC 7/28/14**

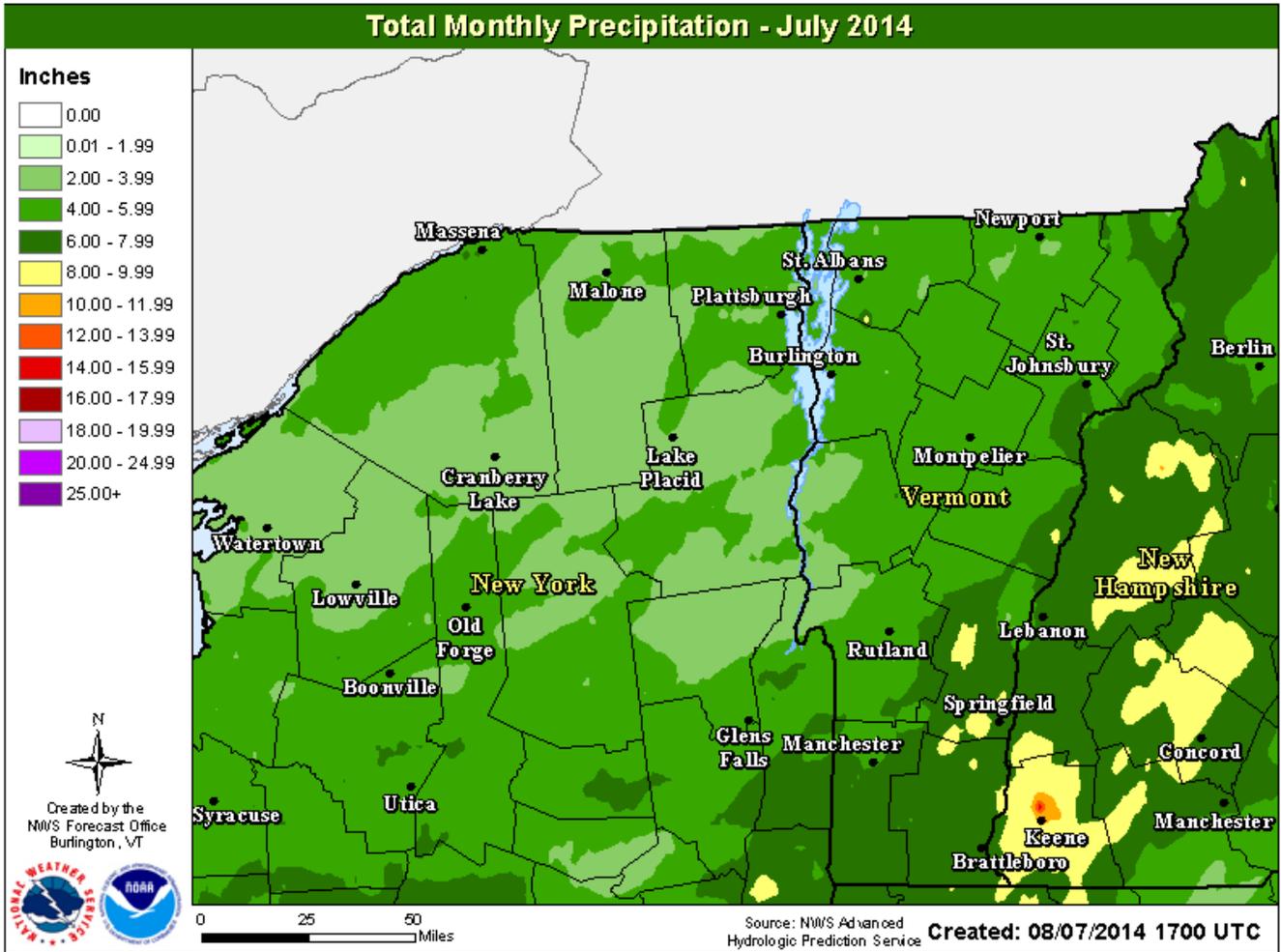


Figure 3, July 2014 rainfall totals

## Total Monthly Precipitation Departure From Normal - July 2014

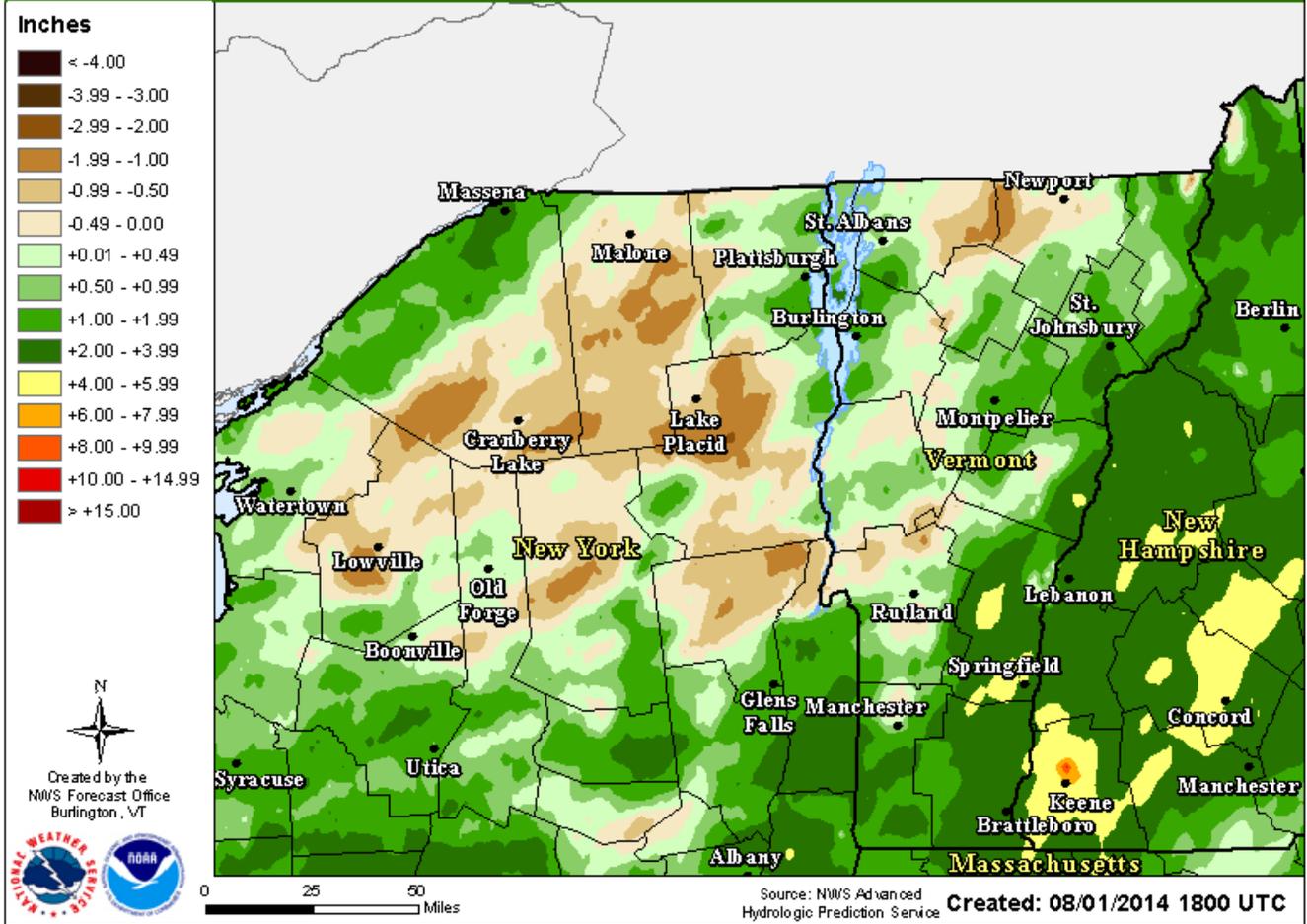


Figure 4, July 214 rainfall departure from normal