

NWS Form E-5 (04-2006) (PRES. BY NWS Instruction 10-924)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) Burlington VT
		MONTHLY REPORT OF HYDROLOGIC CONDITIONS
TO: Hydrologic Information Center, W/OS31 NOAA's National Weather Service 1325 East West Highway Silver Spring, MD 20910-3283		REPORT FOR: MONTH YEAR FEBRUARY 2014
		SIGNATURE /s/ Kimberly McMahon, GF WFO BTV DATE 03/14/2014

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.

Varying temperatures and light precipitation amounts in a climatologically dry month resulted in no flooding for February 2014 across the NWS Burlington HSA. The monthly average temperature was colder than normal despite having about 9 days above freezing and even a few of those days reached above 40F for portions of the North Country. Precipitation amounts were near normal for the month, resulting in February 2014 having no flood advisories, watches or warnings being issued within the NWS Burlington HSA. With the colder than normal month, ice cover increased as well as thickened, especially during the last few days of the month with unseasonably cold weather.

Several significant low pressure systems tracked to our south as coastal lows, bringing several instances of light snowfall; with the NWS Burlington HSA receiving little to no precipitation for half of the month. There were about four days which received over half an inch of precipitation and two of which produced over 1 inch of precipitation, but this was mostly in the form of snow. This helped the area to recoup the low snow pack seen at the beginning of the month (Figure 1). The beginning of February saw a significant snowfall event within the first week. The most notable storms to bring significant snowfall to the area were the February 14th Valentine's Day storm and February 21-22 storm; the latter of which did see much of southern Vermont receive rainfall instead of snow. As a result, the snow-water equivalent in the snowpack has recovered to near normal with the exception of portions of the Northern Adirondacks and Northern Green Mountains (Figure 2). This is also reflected on the Monthly Departure from Normal Precipitation (Figure 3).

February 5-6 saw a low pressure system move across the Ohio Valley and transition into a coastal low, bringing four to 12 inches of snowfall across the North Country. With snow to liquid ratios of 20 to one, most of the area received less than half an inch; however southeastern Vermont being closest to the system and on the windward side did receive more. (Figures 4-6)

A similar set up to the previous storm, the Valentine's Day storm tracked further north with a strong low pressure center. This resulted in snowfall amounts ranging from three inches to over two feet. Once again, Vermont received more precipitation than New York. Liquid precipitation amounts ranged from about a quarter inch to over an inch and a quarter. (Figures 7-10)

The last significant storm of the month was mostly a rainfall event, as temperatures warmed into the 40s for the bulk of the storm. The two day storm occurred from February 21 to 22, receiving over an

inch in areas, which resulted in widespread river rises of one to two feet, but as rivers and streams were low, no flooding occurred. Also the snowpack already on the ground during this event allowed much of the rainfall to be absorbed. (Figures 11-13)

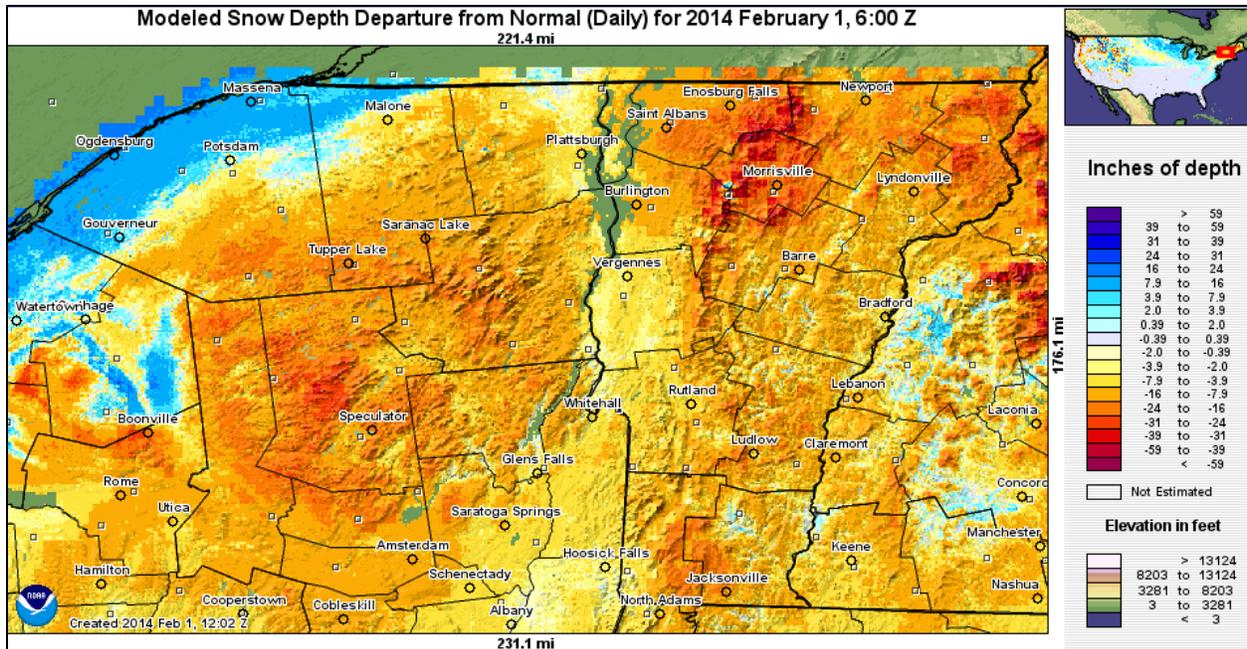


Figure 1. Snowpack SWE February 1, 2014.

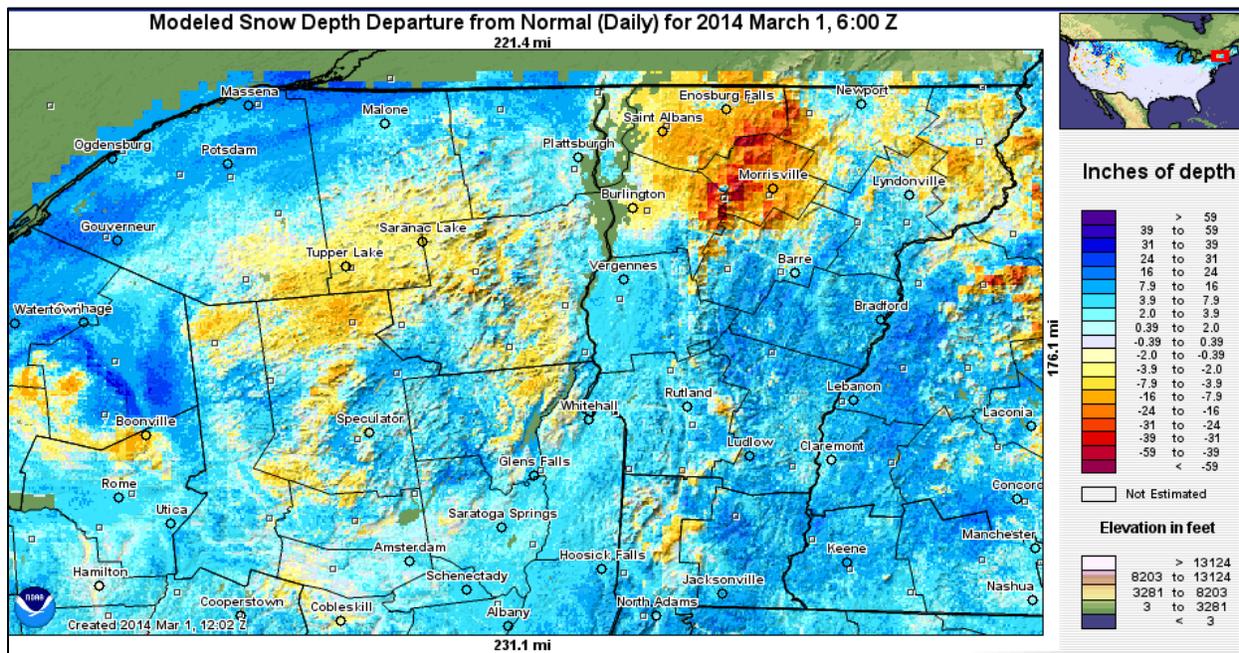


Figure 2. Snowpack SWE March 1, 2014.

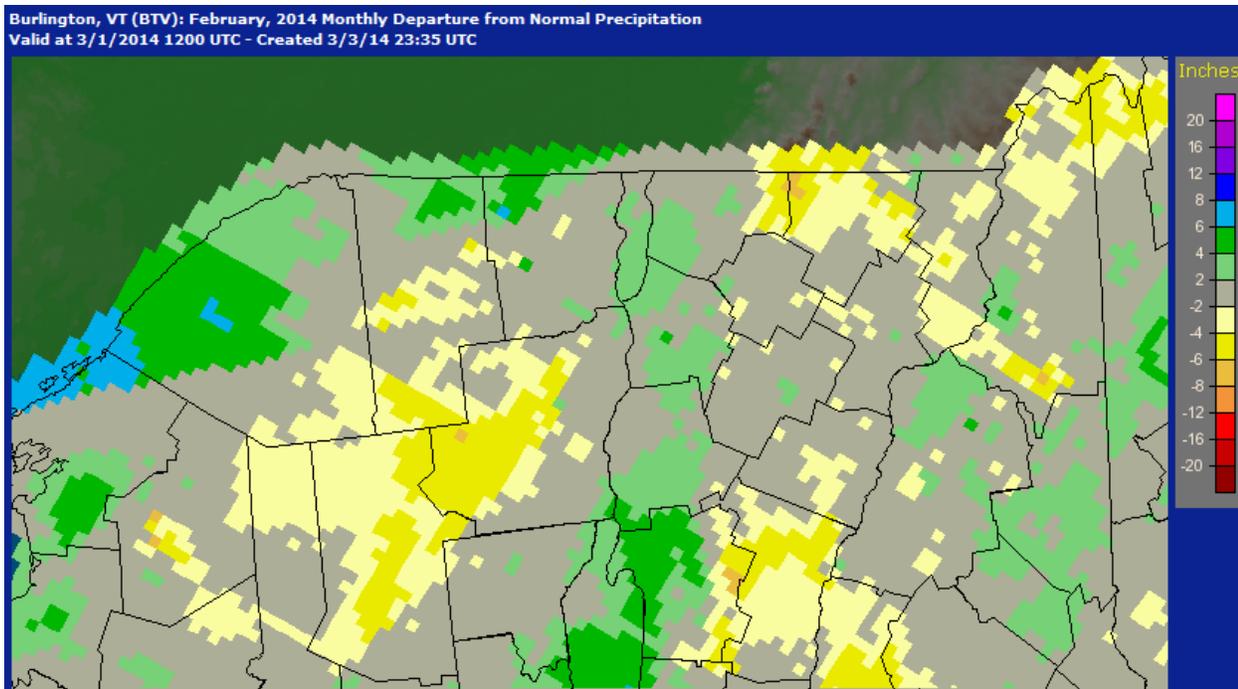
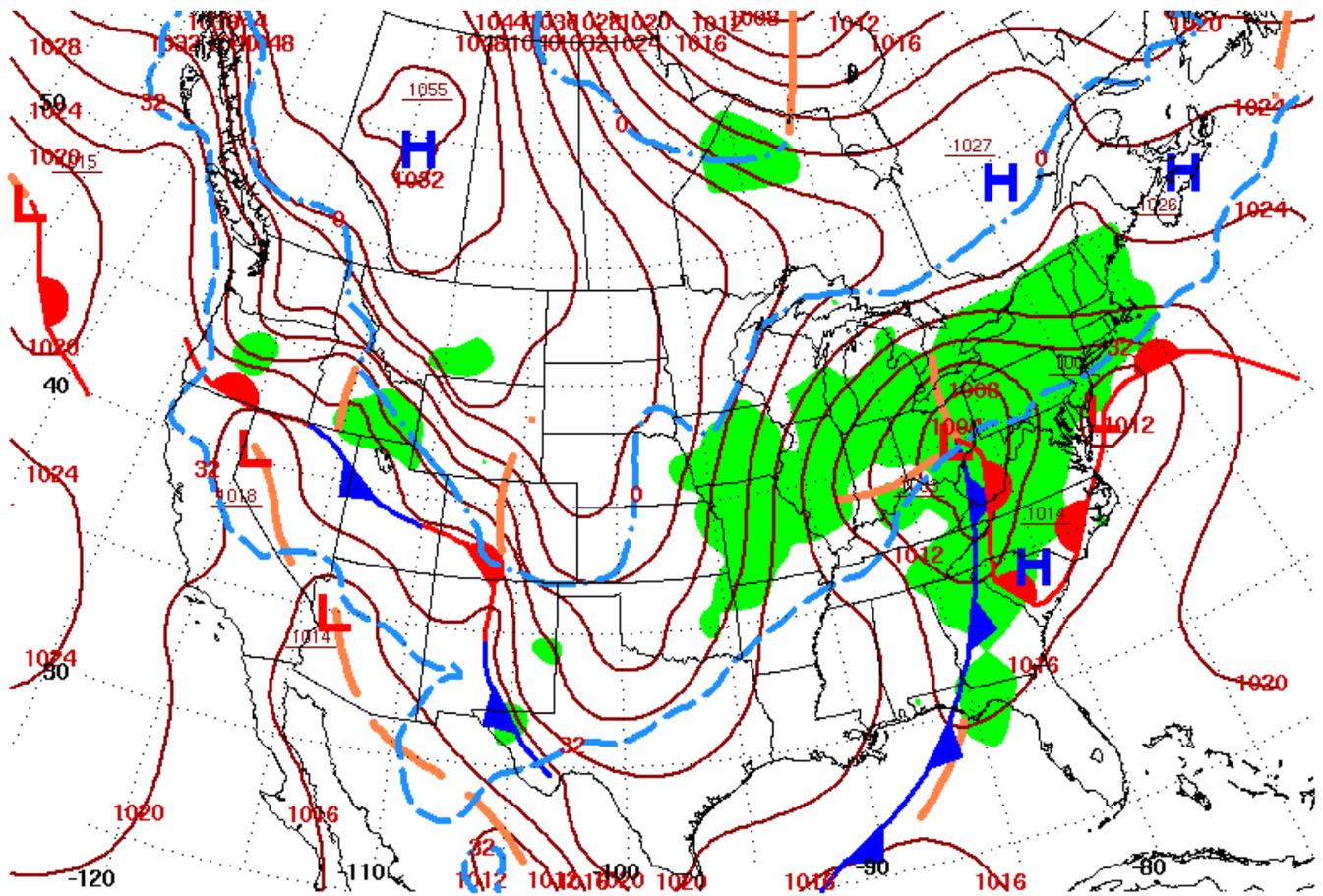


Figure 3. February 2014 Monthly Departure from Normal Precipitation.

Significant Precipitation Events across the NWS Burlington HSA



Surface Weather Map at 7:00 A.M. E.S.T.

February 5, 2014

Figure 4.

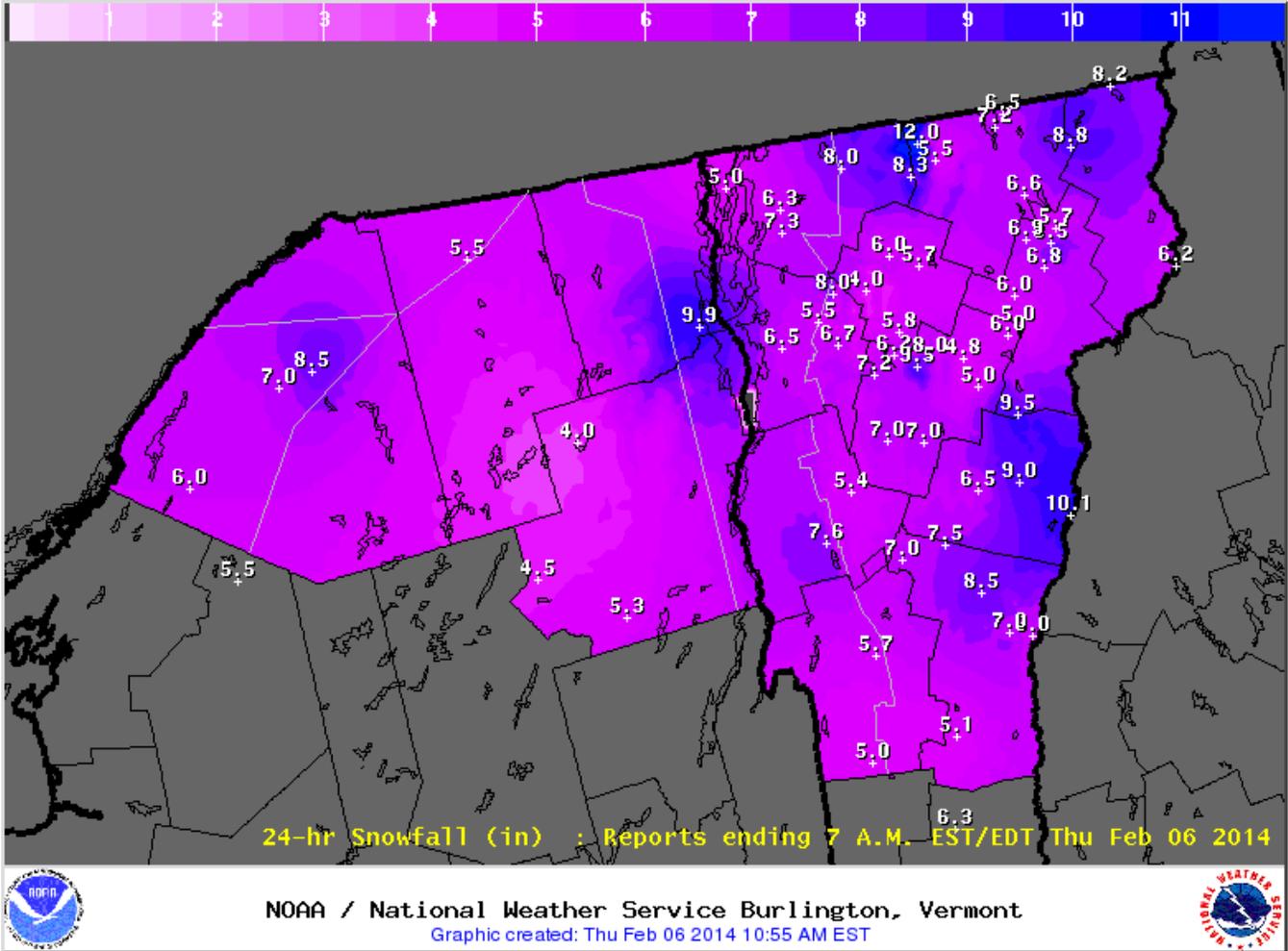


Figure 5. Snowfall reported February 5 2014 event.

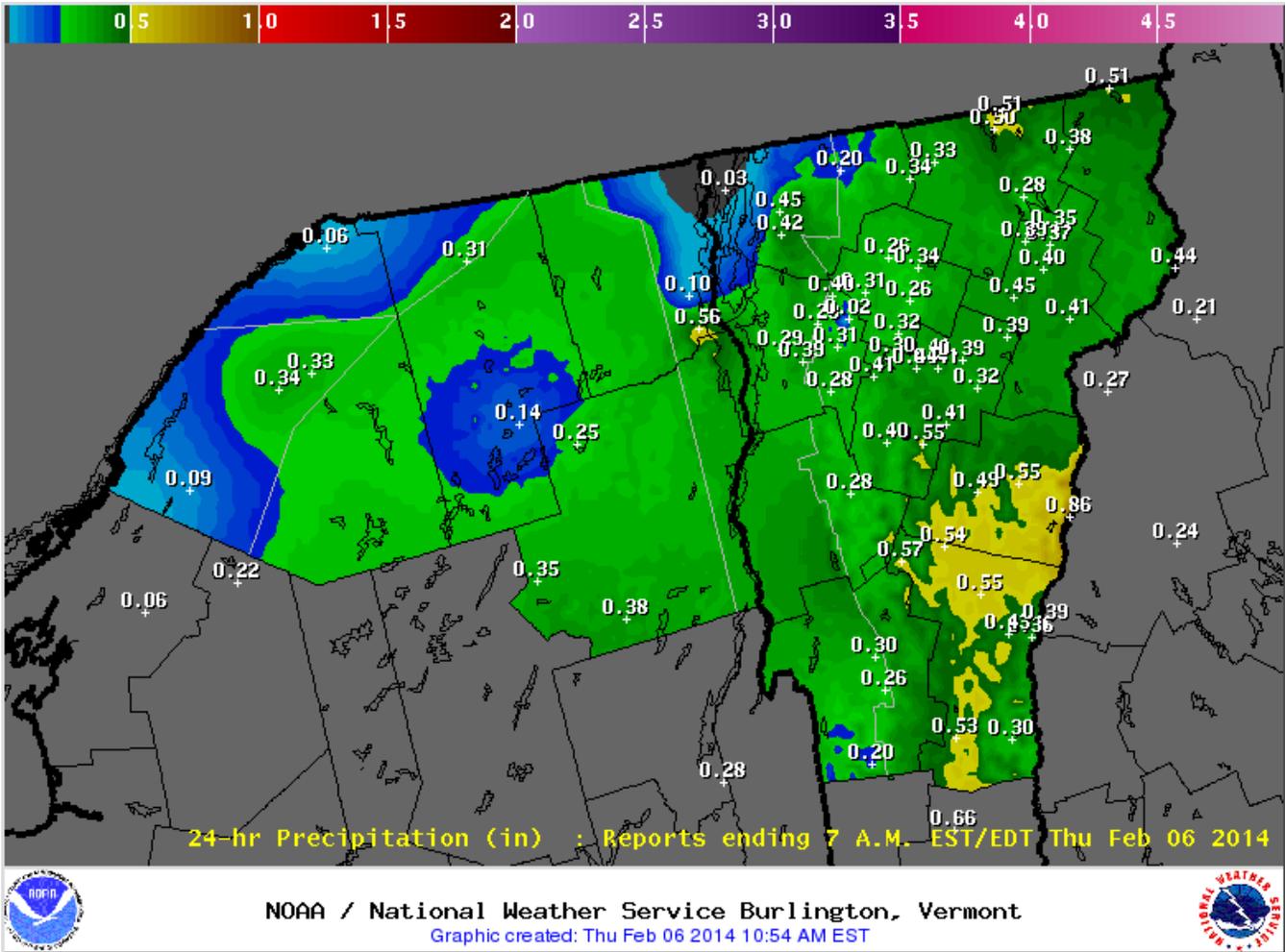
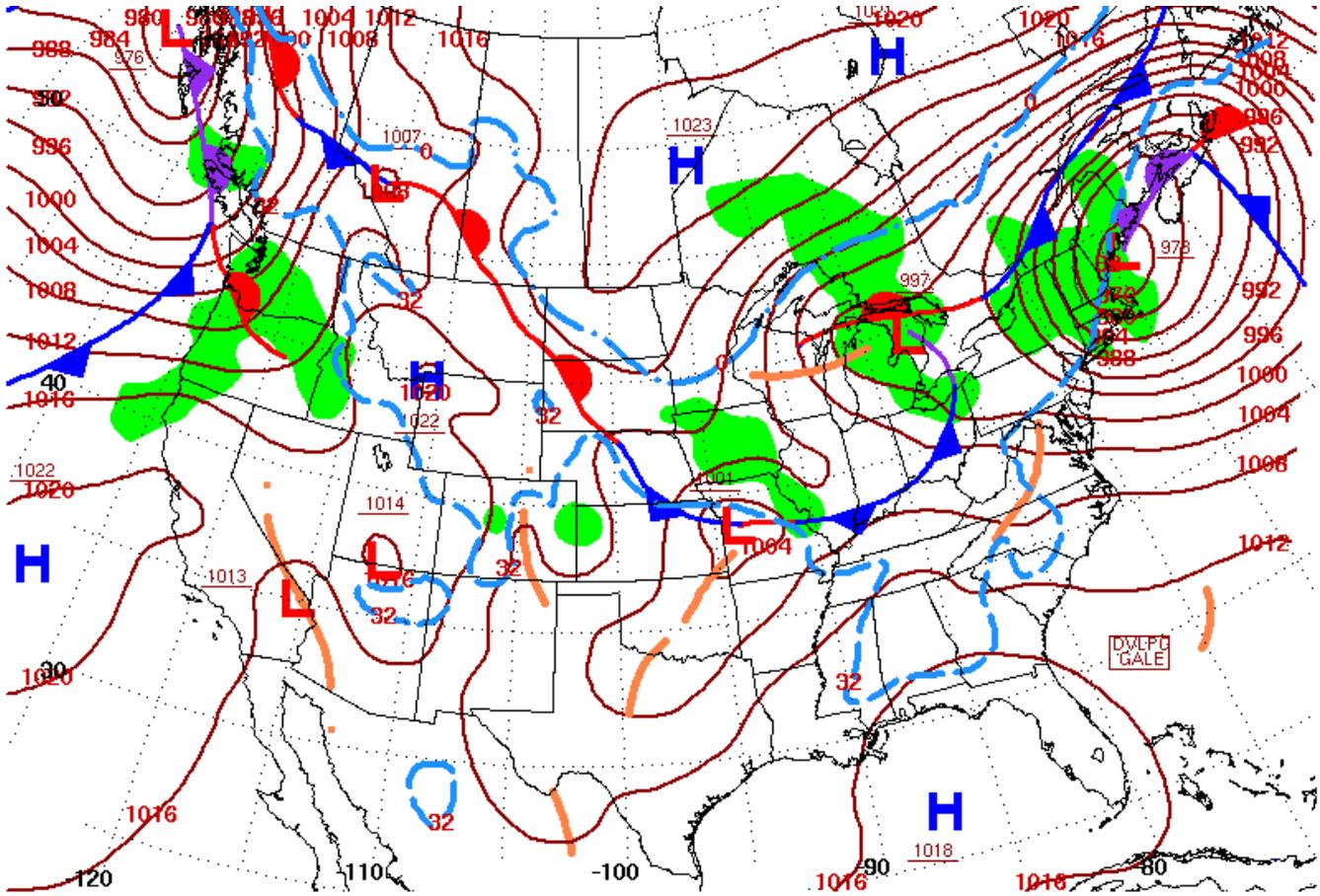


Figure 6. Liquid equivalent precipitation February 5 2014 event.



Surface Weather Map at 7:00 A.M. E.S.T.
February 14, 2014
Figure 7.

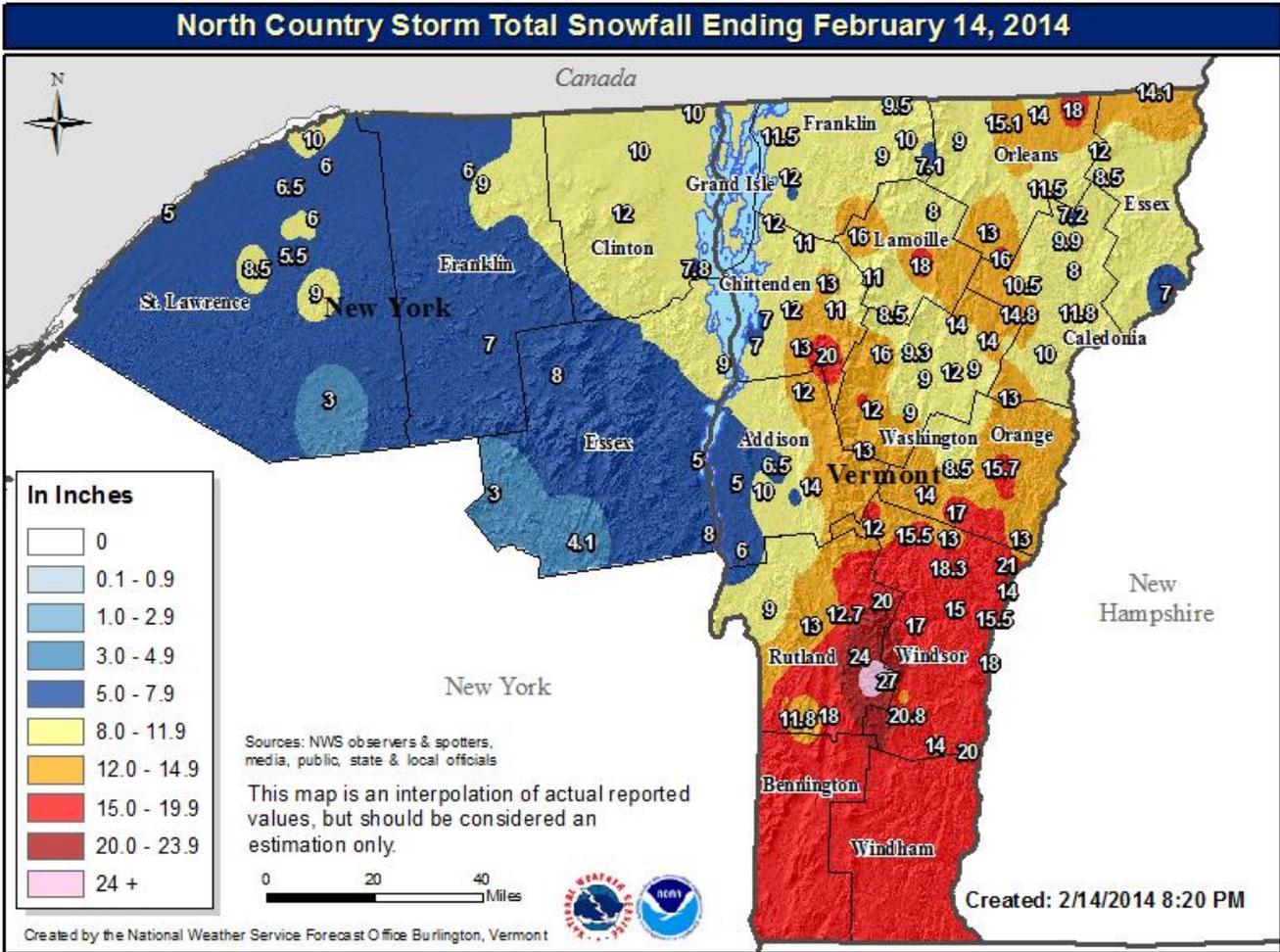


Figure 8. Storm total Snowfall Reports for Valentine's Day storm 2014.

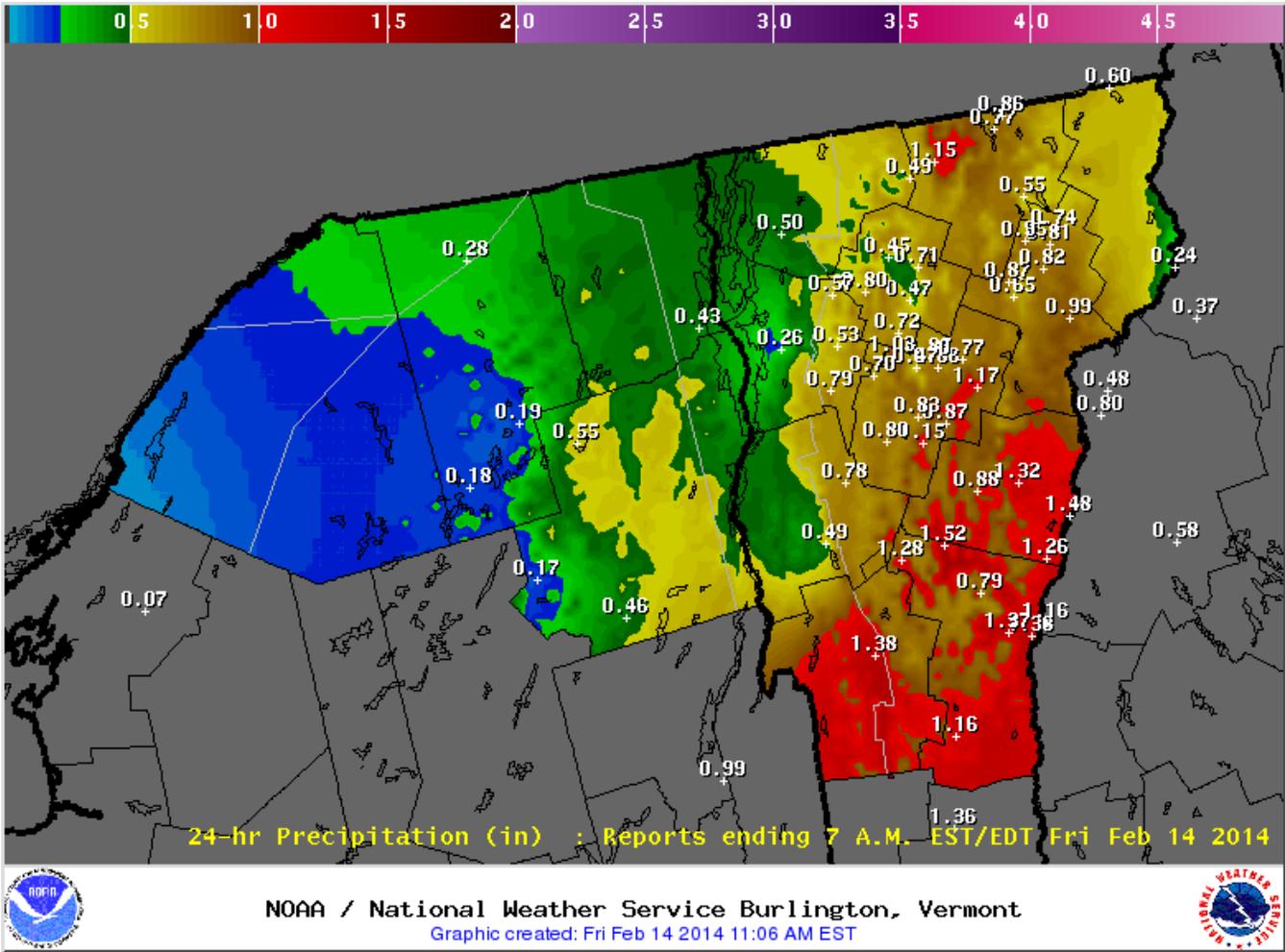


Figure 9. 24 hour precipitation reports as of 7 am Friday February 14.

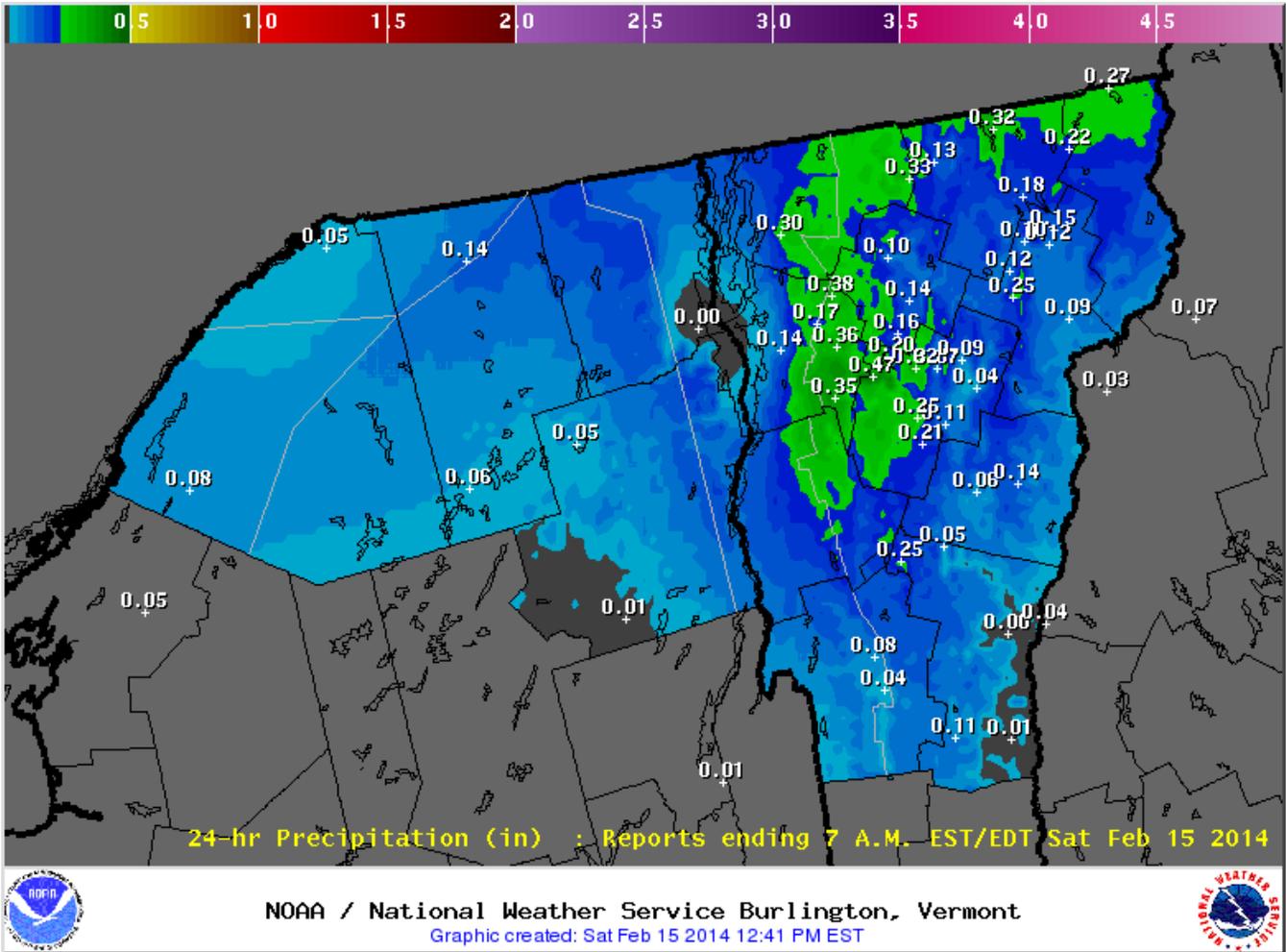
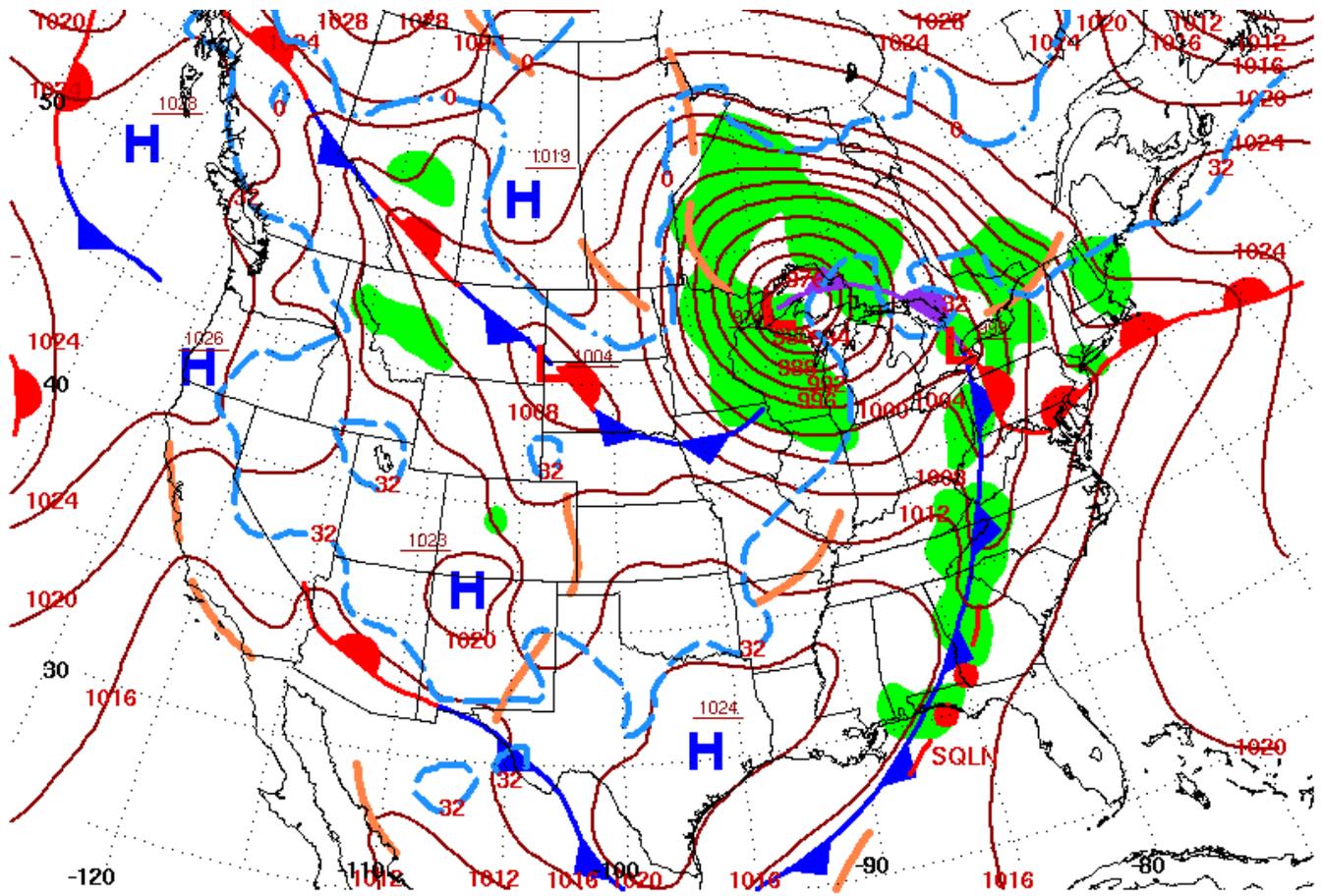


Figure 10. 24 hour precipitation reports as of 7 am Friday February 15.



Surface Weather Map at 7:00 A.M. E.S.T.
February 21, 2014
Figure 11.

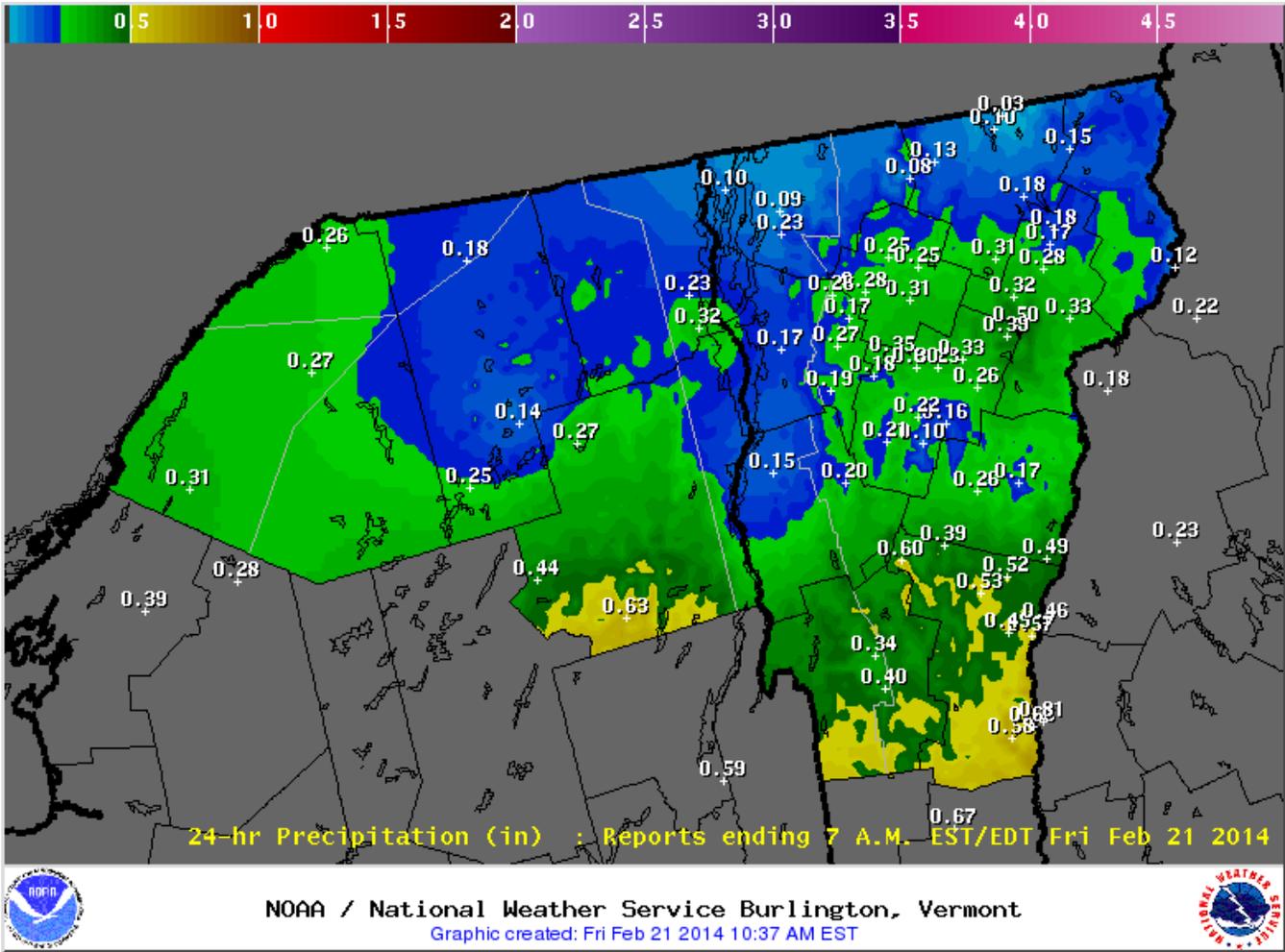


Figure 12.

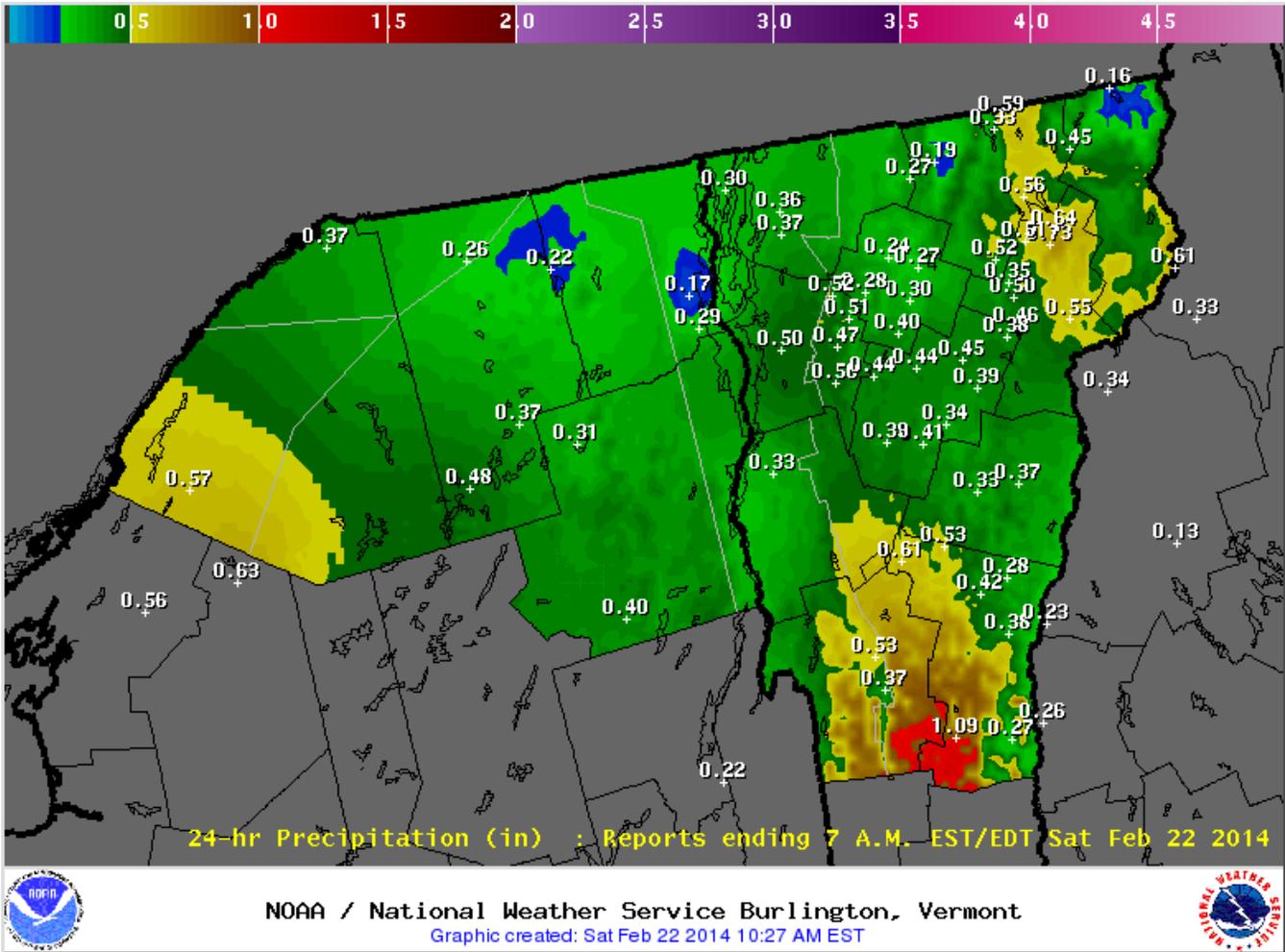


Figure 13.