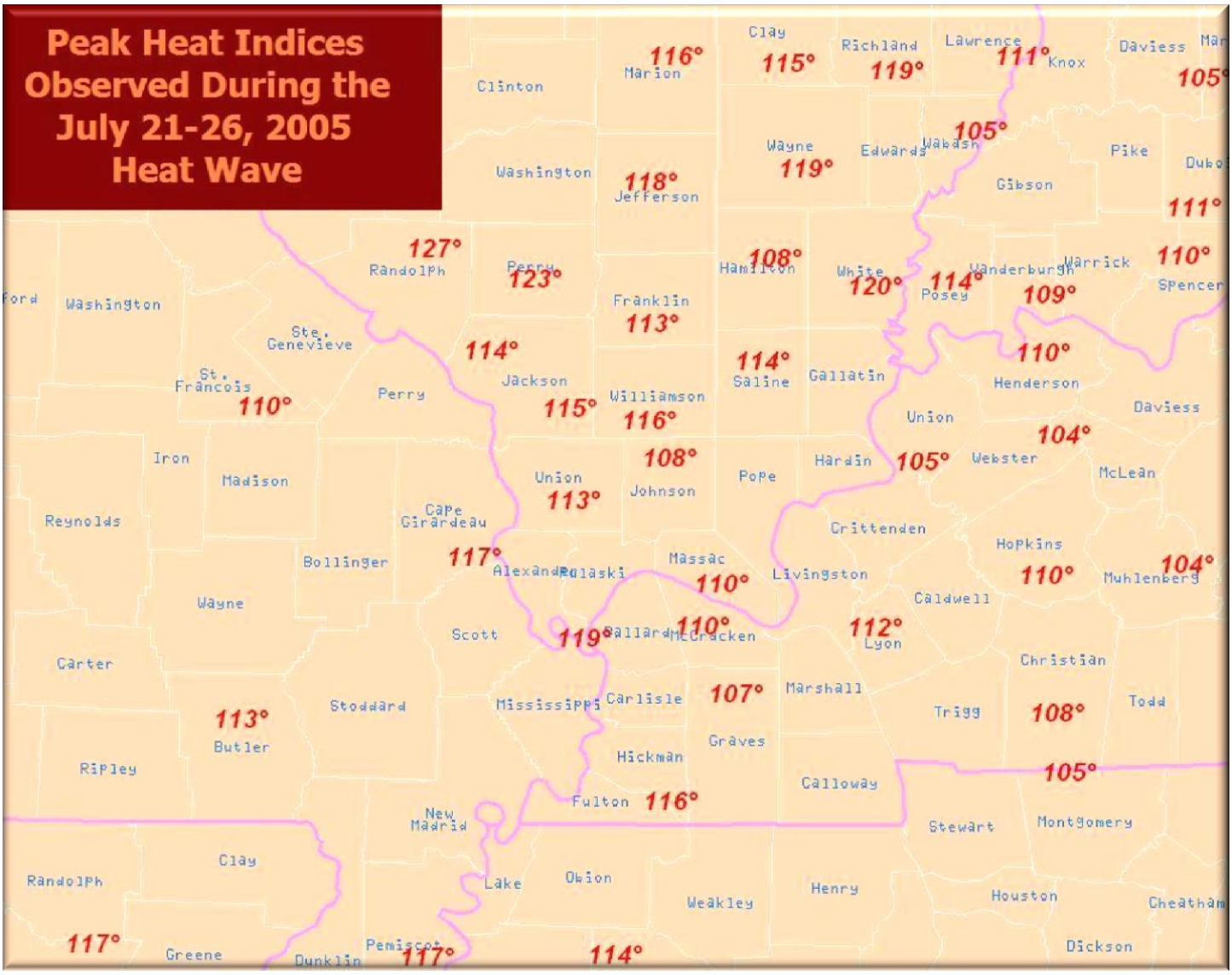


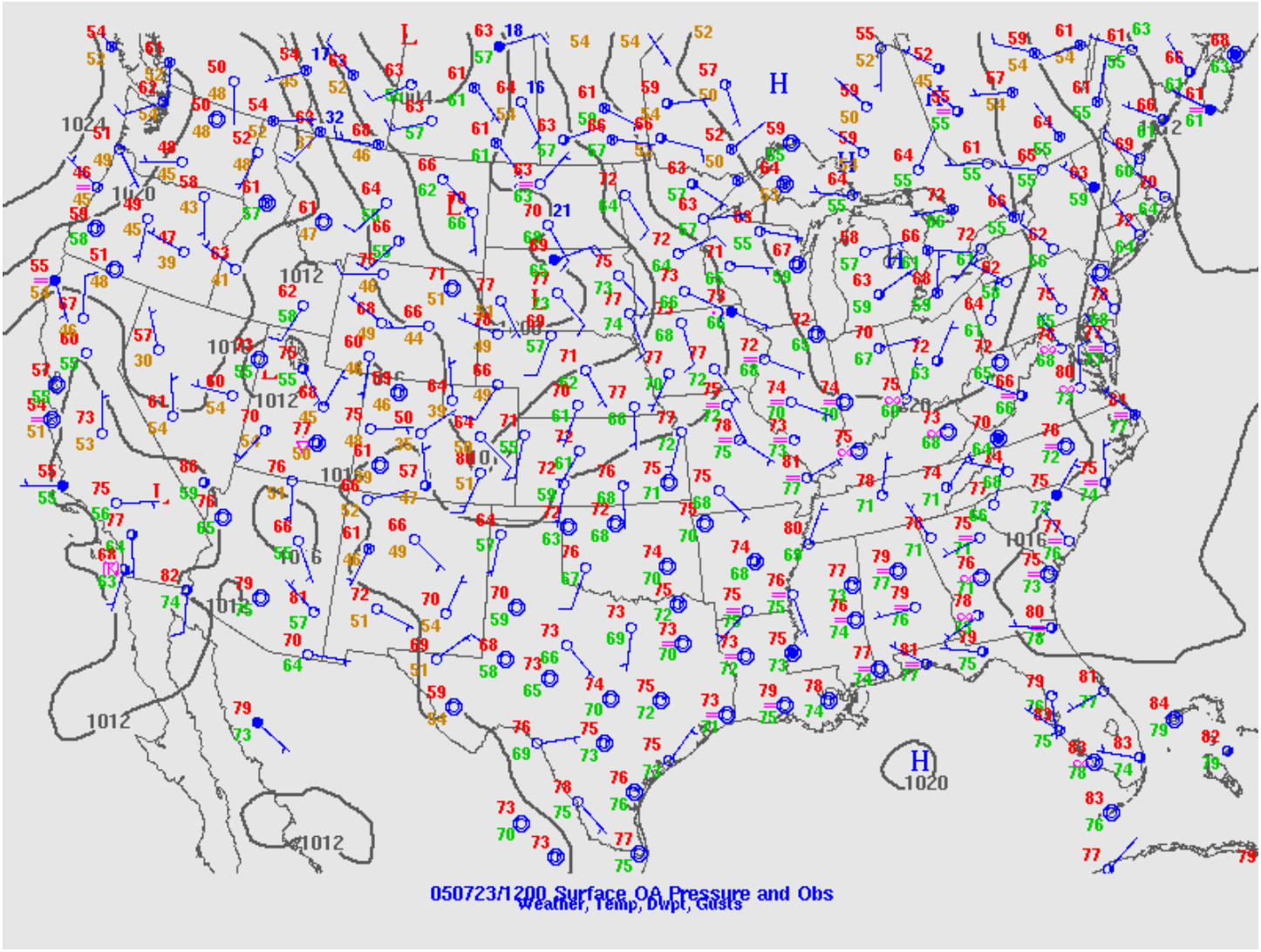
Observations from ASOS, AWOS, department of transportation observing stations, and Automated Weather Source school weathernet sites.

Heat wave numbers:

- Heat indices were at or above 110F over most of southeast Missouri and all of southwest Illinois during all afternoons of the heat wave.
- Dew points were at or above 80F most places north and west of the Ohio River during most afternoons of the heat wave.
- Two record maximum lows were observed at Paducah. These records were a low of 77F on the 25th and a low on the 26th only of 78F.
- Cape Girardeau's low temperature did not drop below 74F for an entire week. Seven consecutive days (July 20-26) observed lows at or above this mark. This tied for the 3rd longest such stretch, with the greatest being 13 days at or above 74F from July 4-16, 1980.
- Cape Girardeau's low temperature of 79F on July 23 broke a maximum low record for the day, and was also the 4th warmest low on record.
- There were two reports of the true air temperature reaching the century mark. NWS cooperative observers both at Doniphan, MO on July 22 and Clearwater, MO on July 24 logged highs of 100F.
- 207 cases of heat related illnesses, and likely more, were treated by area hospitals and medical centers across the entire quad state during the prolonged heat.

Meteorological Setup:

- Expansive maritime high pressure at the surface extended from the Gulf of Mexico northward into the Great Lakes. Little pressure gradient allowed weather conditions to stay the same from day to day. Light southerly flow allowed moisture to pool in the mid-Mississippi valley, which coupled with a moist ground from the remnants of Hurricane Dennis, enabled dew points to near or top 80F by the beginning of the heat wave.



- Aloft, temperatures continued to warm daily. This promoted less clouds and slightly higher temperatures each day. As the following 500mb (~18,000 ft) map depicts, the high pressure in the central U.S. was seen at all levels. Also, one can note the jet stream was anchored well north of the region. This kept storm systems and associated cooling effects away from the area and did not allow the high to budge.