



"Because every drop counts"

Southeast Louisiana CoCoRaHS Newsletter

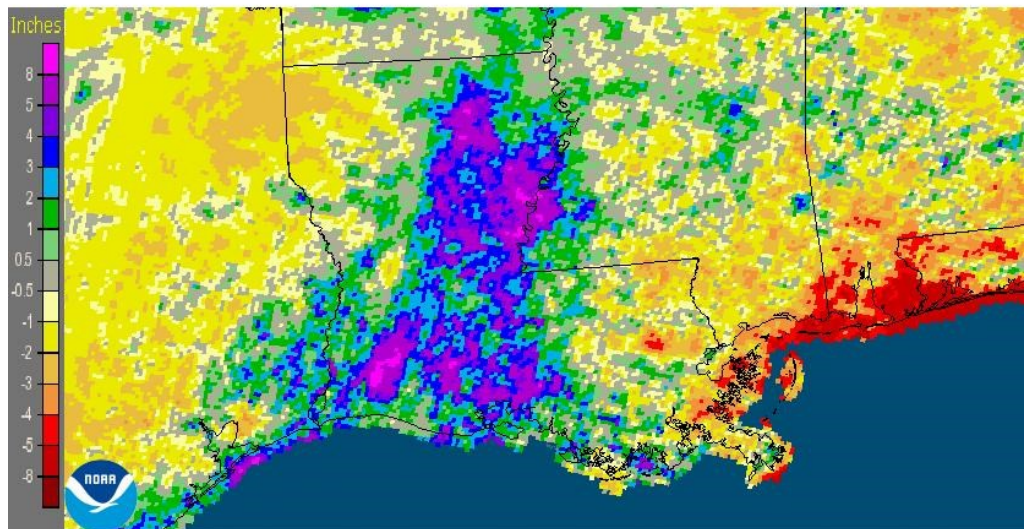
September 1, 2014

Bayou State split between wet and dry in August

This August has seen many rain days but not as much total accumulation as in recent past summers, at least over the southeastern parishes. The northwest corner of the state had similar dry conditions and was in the throes of drought conditions that have spread from nearby Texas. Meanwhile, a very wet corridor existed from southwest and south-central Louisiana northward into the Ouachita River Basin in northeast Louisiana. Monroe 1.9 NNW (LA-OC-4)

was the wettest location with 11.47" tallied over 17 reporting days. A large rain event impacted the Lake Charles area on the closing days of the month to produce 6.45 inches in one day on the 29th-30th at Lake Charles 4.8 SSE (LA-CC-14). On the flip side, Hammond 4.5 SSW (LA-TG-4) only measured 0.86 inches on 19 reports. The image, upper right, is the departure from normal rainfall for August across the Gulf South. The purple-blue-green areas are areas of rainfall that exceeded normal values, while the yellow-orange-red hues are drier than normal.

Louisiana: August, 2014 Monthly Departure from Normal Precipitation
Valid at 9/1/2014 1200 UTC- Created 9/2/14 0:16 UTC



Big Rains across the Nation: How CoCoRaHS observers help define an event

So how do climatologists, meteorologists and hydrologist make use of your valuable reports across these three disciplines? Over the past month, there have been several big news rain events across various parts of the nation. I decided to take a sampling to demonstrate how some of this data source is used for placing events into historical perspective. In August, the largest rainfall total measured by CoCoRaHS observers in a single day was 13.02 inches on August 13th at Islip 0.2 NW on Long Island, New York. There is a statistical reference that engineers, hydrologists and others use to depict rain events, called a return frequency or frequency/duration/interval studies. These are computed by taking historical rain events at a particular location for the various durations that took place, ranging from minutes to hours to a full day. These are typically plotted as a scatter diagram on a lin-log graph, where the time scale is logarithmic, and the accumulation is linear. In southeast Louisiana, the 13.02 inches in 24 hours would be equivalent to a 50 year return, or a 2 percent chance of occurring in any given year. In Islip, NY, the same amount has an estimated return of 2500 years or 0.04 percent chance of occurring in any year. This was indeed a rare event for that location, and it was not due to a tropical system. The diagrams on the back show a return period graph (left) and a 24-hour 100 year return period (right). The 9.20 inches would have a 1 percent chance of occurring on any given year close to Islip, NY.

AUGUST STATISTICS

Wettest/Driest/Hail/Reporting

- ◆ Wettest Month, State—11.47” on 13 reports at Monroe 1.9 NNW (LA-OC-4)
- ◆ Wettest Month, Local - 8.44” on 28 reports at Brownfields 5.8 NE (LA-EB-9)
- ◆ Wettest Day, State—6.45” on the 30th at Lake Charles 4.8 SSE (LA-CC-14)
- ◆ Wettest Day, Local – 3.16” on the 31st at Marrero 1.9 E (LA-JF-6)
- ◆ Number of Rain Days—27 with at least 0.01” average on a given day in the state.
- ◆ Driest Month, State — 0.86” on 19 reports at Hammond 4.5 SSW (LA-TG-4)
- ◆ Driest Month, Local— Same as statewide
- ◆ Hail Reports: None.
- ◆ Snow Reports: None.
- ◆ Stations Reporting: 98; Number of Reports: 2274; Average per day: 73.4
- ◆ Busiest Reporting Day: 1st, average: 0.59”, max amount: 5.80”, number of reports: 81
- ◆ Wettest Reporting Day: 31st, average 1.52”, max amount 3.71”, number of reports: 73
- ◆ Number of perfect 31 report observers: 35 stations statewide

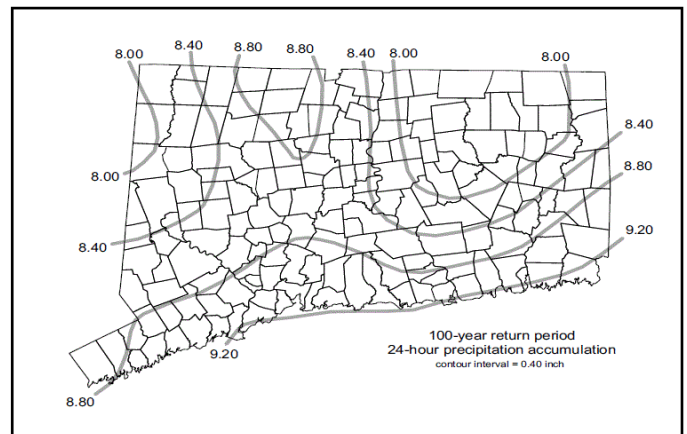
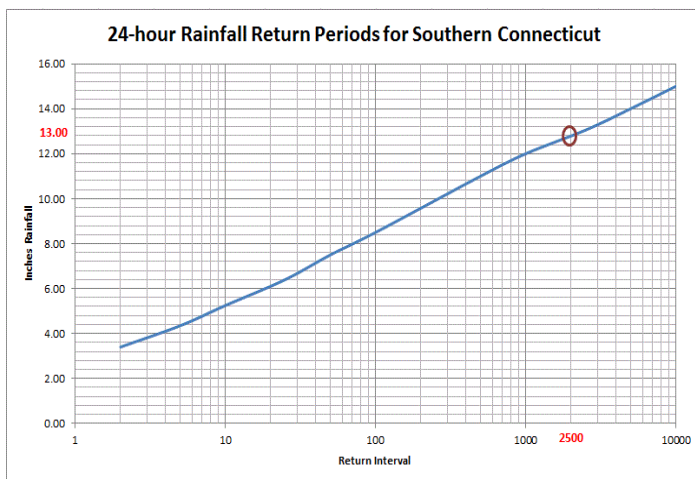


Figure 4x. Contour Map of 100-Year, 24-Hour Precipitation Accumulation in Connecticut.

[Source: U. of Connecticut—<http://www.ctiwr.uconn.edu/PrecipinCT/precip.pdf>]

Comment of the Month - From Denham Springs 4.1 NE (LA-LV-4) on August 20, 2014.

“Thunder and Lightning, Rain and bright sunshine all at the same time yesterday”

This is a common occurrence in the summer time when showers and storms form on the sea breeze and move inland. Once they pass, the sun can shine bright from the south. This was one of 162 comments in August.

Keep those DAILY rainfall reports coming!