

Norbert (2014)

Dates: 2 - 8 September 2014

Peak Intensity: Cat 3 Hurricane

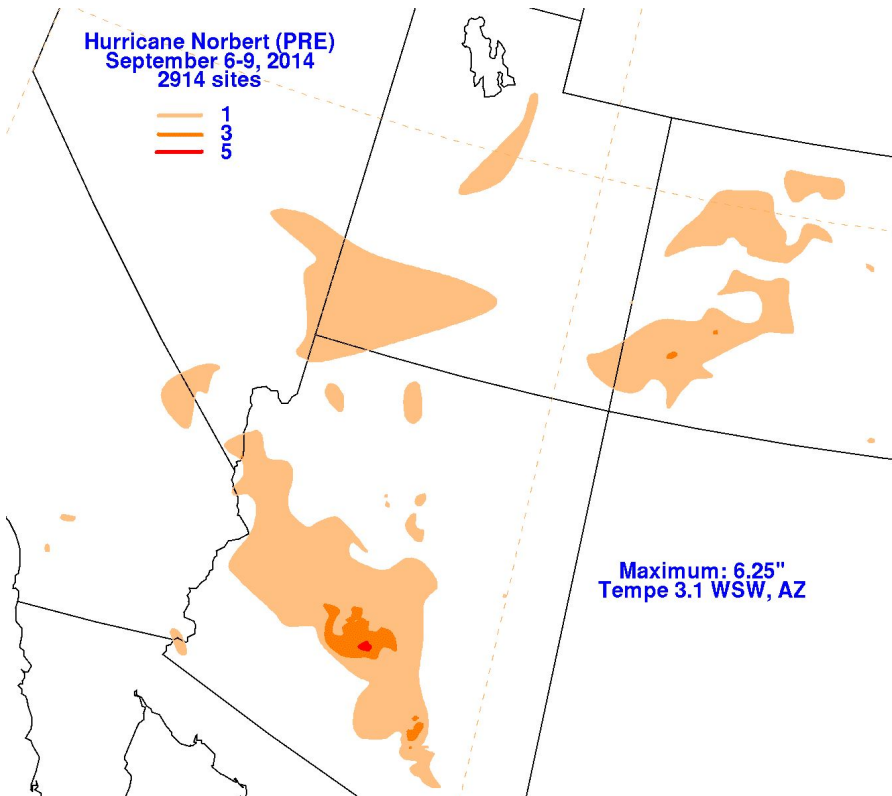
A tropical wave moved offshore western Africa on August 18, and moved west for ten days across the Atlantic Basin with no development. After entering the northeast Pacific on August 31, thunderstorm activity with the wave increased. On September 1, a broad low pressure system formed a couple hundred miles southwest of Manzanillo. Vertical wind shear from the northeast slowed development. The system became well enough organized to be considered a tropical depression on September 2, and as vertical wind shear decreased, a hurricane by late on September 3. Norbert became a major hurricane just offshore Cabo San Lucas late on September 5, becoming the strongest storm in the area west of Cabo San Lucas since the 1984 and 2008 incarnations of Norbert. Soon afterward, the storm moved over colder waters, with Norbert becoming a remnant low late on September 7. The remnant low dissipated west of Point Eugenia late on September 10.

Showers and embedded thunderstorms produced very heavy rainfall in Mesa during the morning hours on September 8th; peak rain rates were well in excess of 2 inches per hour and many locations received between 3 and 5 inches of rain with this event. According to gage data from the Maricopa County Flood Control Network, some of the heaviest rain in the greater Phoenix area occurred in east Mesa during the early morning hours, with measured rainfall totals exceeding 5 inches within a 6 hour period. The heavy rain led to significant flash flooding across Mesa during the morning hours resulting in damage to area homes and businesses as well as severe disruption of morning traffic. One area that was especially hit hard was the Emerald Acres neighborhood located just north of US 60, and bounded by Stapley Drive and Harris. Due to various man-caused factors, the flash flooding was followed by areal flooding which persisted in the neighborhood for about 2 days and resulted in millions of dollars in damages to over 200 homes.

Storm Track:



Rainfall Analysis:



References:

- https://www.nhc.noaa.gov/data/tcr/EP142014_Norbert.pdf
- <https://www.wpc.ncep.noaa.gov/tropical/rain/norbert2014.html>
- <https://www.ncdc.noaa.gov/stormevents/eventdetails.jsp?id=560902>
- <https://www.weather.gov/psr/FormerHurricaneRosa>
- <http://bit.ly/2ME7sl8>