

Lorena (2019)

Dates: 17 September - 22 September 2019

Peak Intensity: Category 1

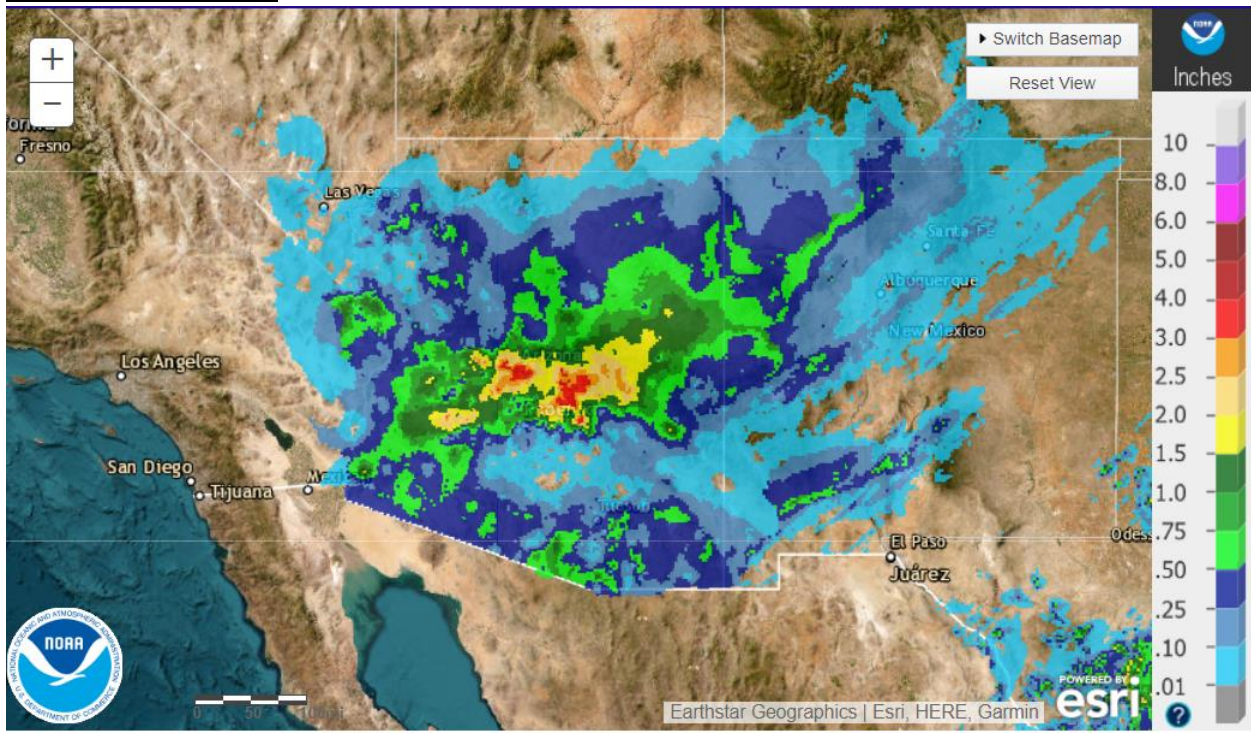
A tropical wave moved westward off of Africa on September 4, 2019, that was traveling with some well-organized, cyclonic rotation in the mid-levels of the atmosphere. When these two areas merged, they began to move westward. After about 9 days of travel into the Lesser Antilles, thunderstorm activity had decreased (September 13th). With more westward travel into the Caribbean Sea and crossing into Central America, shower activity increased and began to organize. It is estimated that Lorena formed on September 17th, about 300 n mi southeast of Acapulco; though it had been producing Tropical Storm winds late September 16th. Lorena gained hurricane status when about 50 n mi south-southeast of Manzanillo, close to Jalisco. Soon after, Lorena moved into the water and regained hurricane status. It then moved north northwestward to make a second landfall. High terrain and a second landfall caused Lorena to begin to dissipate over mainland Mexico.

As Lorena's remnant moisture spread throughout Mexico and into the United States, it spread north into Arizona. The moisture from Lorena interacted with a more northern upper-low system and brought heavy rain and thunderstorms. On September 23rd, two tornadoes were produced from this system, one in Stanfield and the other in Wilcox. The tornado in Stanfield was an EF0 and had no reported damages or injuries. The tornado lasted for about 1 mile before dissipating. In Wilcox, an EF1 tornado was reported. It moved northeast for approximately 1.7 miles. This tornado had peak wind speeds between 90 mph and 100 mph. In total, it was reported that 4 homes were damaged, multiple power poles, and trees uprooted and or snapped from the tornado. Because of this, there was about \$250k in damages. This interaction lingered within Arizona a bit longer and brought some extremely heavy rain to most of Arizona. These totals ranged from 1.5 in. (southern) and between 3-5 in. (central).

Storm Track:



Precipitation Totals



References:

https://www.nhc.noaa.gov/data/tcr/EP152019_Lorena.pdf

<https://water.weather.gov/precip/>

<https://www.ncdc.noaa.gov/stormevents/eventdetails.jsp?id=851084>

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