

## **Hernan (2020)**

**Dates:** 25 August - 28 August 2020

**Peak Intensity:** Tropical Storm

Tropical Storm Hernan formed over the eastern Pacific and came from an active part of a monsoon trough from Hurricane Genevieve. Also from this trough, two other low-pressure systems came from the same monsoon trough, and one would develop into Tropical Storm Iselle. The first system was seen on August 21st and slowly began to move Eastward which would become Hernan. This system did not organize until 3 days later on the 24th due to easterly vertical wind shear and with southwesterly monsoonal low-level winds. Hernan became a tropical storm on August 26th. Around this time, the Tropical Storm was about 295 n mi south-southwest of Cabo Corrientes, Mexico.

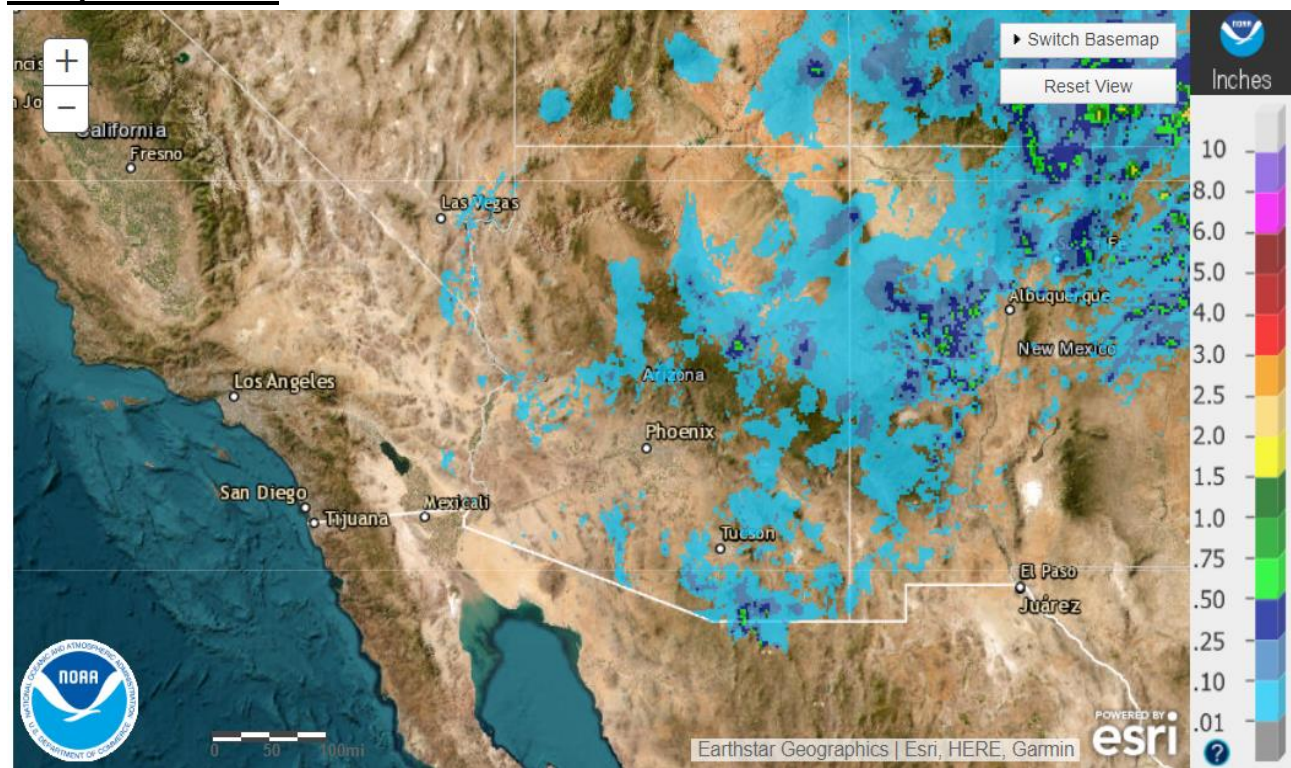
Hernan initially moved slowly eastward then northward and strengthened only slightly. Then, a faster north-northwest motion took the center 25 n mi west of Cabo Corrientes and near Las Islas Marias. This caused the cyclone to weaken and become a Tropical Depression rapidly. Eventually, Tropical Depression Hernan was absorbed by circulation that would later develop into Tropical Storm Iselle.

When Tropical Depression Hernan made its way towards Cabo Corrientes, it pushed forward a Gulf surge which then pushed forward anomalously deep moisture into Arizona on August 29th. In Pima and Pinal counties, Flash Flood Warnings were issued. Greenlee and Pima Counties received Severe Thunderstorm Warnings. In Pima County, the thunderstorm winds and flash flood warnings were produced from scattered thunderstorms on August 29<sup>th</sup>, 2020. One of these storms caused \$50k worth of damage to Marana High School by uprooting trees and light poles and damaging tennis court fencing. Winds also caused a large set of bleachers (100 ft x 20 ft) to be thrown 50 feet onto the football field, causing damage to the field and destroying the bleachers. Within Pinal and Pima counties also on the 29th, a Flash Flood Warning was issued due to an inch of rain falling in less than an hour near the Bighorn Fire Burn Scar. In Pinal County, there was an 8-foot rise in the Canada del Oro wash due to rainfall on Mt. Lemmon and the Bighorn fire burn scar. This strong flow continued downstream into Pima County. Water overflowed and began to flow onto Edwin Road near Saddlebrooke.

## Storm Track



## Precipitation Totals



## References:

[https://www.nhc.noaa.gov/data/tcr/EP132020\\_Hernan.pdf](https://www.nhc.noaa.gov/data/tcr/EP132020_Hernan.pdf)

<https://mesonet.agron.iastate.edu/wx/afos/p.php?pil=AFDTWC&e=202008290430>

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

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