

June 2021 Weather Digest



June 2021 Weather Summary

June started out as most typical Junes start out as; hot and dry. This June started out hot as high pressure aloft developed over the area. Through about June 20 this basic pattern persisted and temperatures were much above normal. Numerous sites broke daily high temperatures records during this stretch. Thunderstorms and rainfall were limited mainly to the mountains. Then on around the 25th and 26 the pattern began to change. The high pressure moved off and an upper low moved over Arizona and New Mexico. In concert with this, a cold front from the east moved in with ample low level moisture. By the 27th and 28th rainfall began to develop across much of the area. Many areas received from 2 to 4 times their normal entire June rainfall, and in fact several sites recorded more rainfall in the last week of June than all of the summer Monsoon season of 2020. El Paso recorded 2.37 inches of rain in the last week of June, compared to 2.36 inches all of the 2020 summer season. Of course with the rain comes cooler temperatures, and many sites observed record cool maximum temperatures in this stretch. In fact this cool stretch wiped out most of the heat of the first 3 weeks of the month—so that the monthly average temperatures ended up only slightly above normal. As the upper low moved out at the very end of the month, the Monsoon pattern began to develop (see below).

June 2021 Weather Summary, cont'd

Final rainfall for the month was significant. Most areas east of the Continental Divide received from about 150 to 300 percent of their monthly normal rainfall. This should help to begin alleviating the ongoing drought conditions. Unfortunately, to the west of the Divide, the rainfall was only about 25 to 90 percent of normal, allowing the persistent drought to continue mostly unabated. With the Monsoon pattern mostly set up by the end of June and beginning of July, hopefully these drought conditions can begin weakening.

Looking ahead to July, though temperatures normal decrease some, the increase in humidity makes the temperatures feel about the same as June. July begins the stretch of the 3 wettest months of the year for the majority of sites. As we are now firmly past the summer solstice, daylight begins to shrink. Daylight on the first is 14 hours, 11 minutes and decreases to 13 hours, 41 minutes on July 31. For lunar fans, the new moon occurs on the 9th, and the full moon occurs on the 23rd. This full moon is known as the buck moon, as this is the time of the year when new antlers begin growing on bucks.

June 2 Dust El Paso



June 15 Johnson Fire



June 13 Silver City Smoky Sunrise



June 12 Landspout



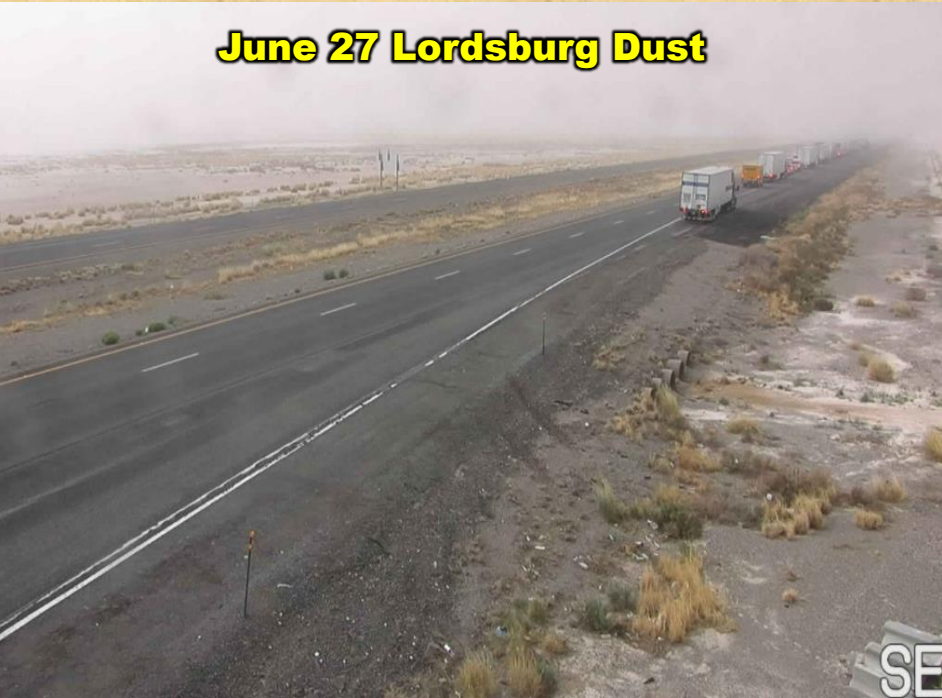
June 22 Silver City Smoke



June 13 Lordsburg Dust



June 27 Lordsburg Dust



June 24 El Paso Storm



June 30 El Paso Flooding



June 27 El Paso Flooding



June 30 Canutillo Flooding



June 30 Canutillo Flooding



PAISANO AT EXECUTIVE

June 28 El Paso Flooding



June 30 El Paso Flooding



June 29 Santa Teresa



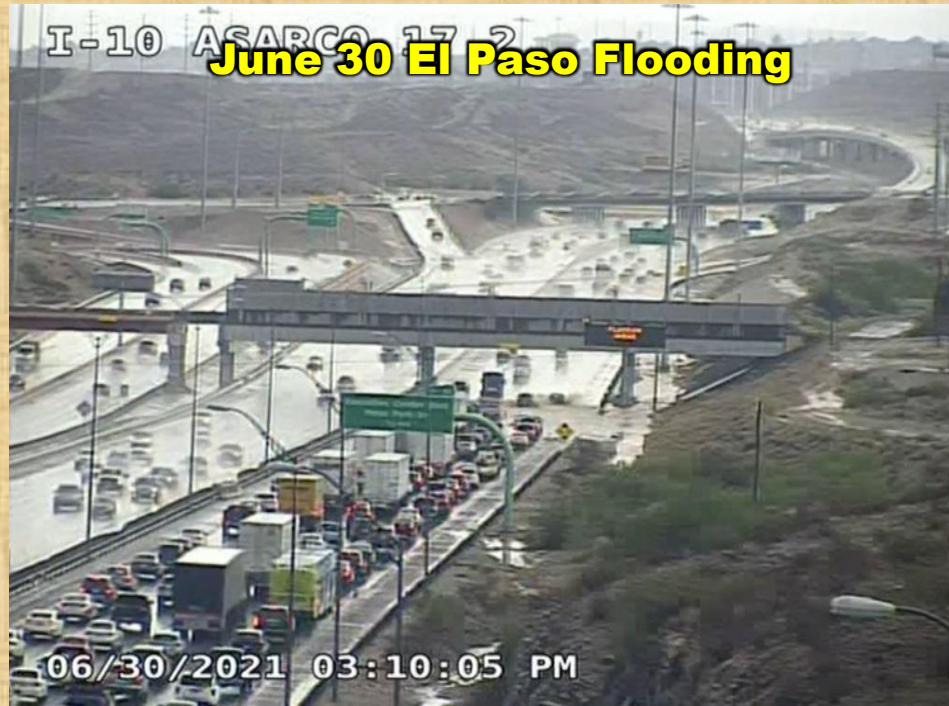
June 28 El Paso



June 28 El Paso Flooding



June 30 El Paso Flooding



June 28 El Paso



ENSO Alert System Status: Neutral-alert system not active

ENSO Alert System

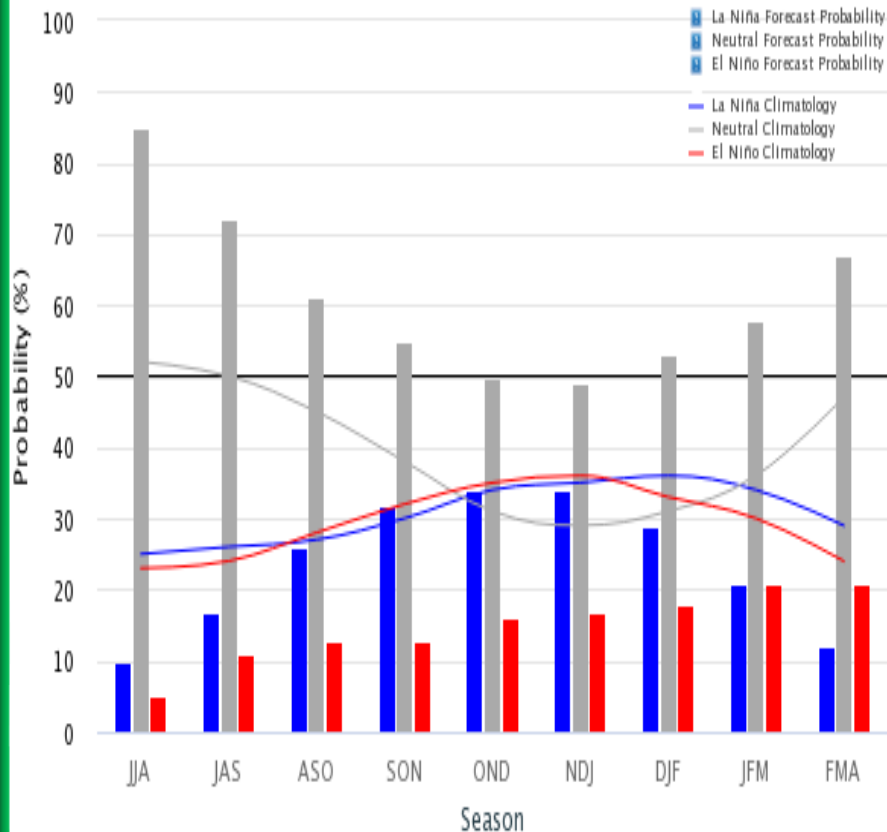
- **El Niño or La Niña Watch:** Issued when conditions are favorable for the development of El Niño or La Niña conditions in the next six months.
- **El Niño or La Niña Advisory:** Issued when El Niño or La Niña conditions are observed and expected to continue.

ENSO Forecast

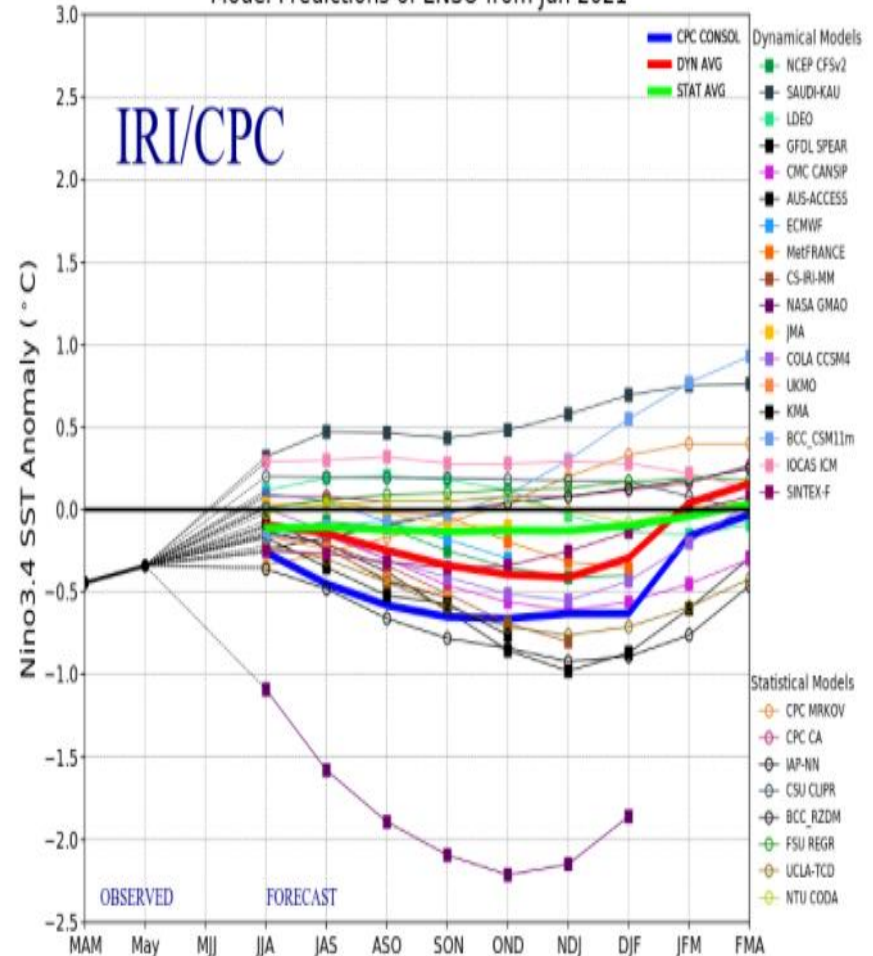
ENSO has returned to neutral status; and is expected to remain in neutral into this coming autumn.

Mid-June 2021 IRI/CPC Model-Based Probabilistic ENSO Forecasts

ENSO state based on NINO3.4 SST Anomaly
Neutral ENSO: -0.5°C to 0.5°C



Model Predictions of ENSO from Jun 2021

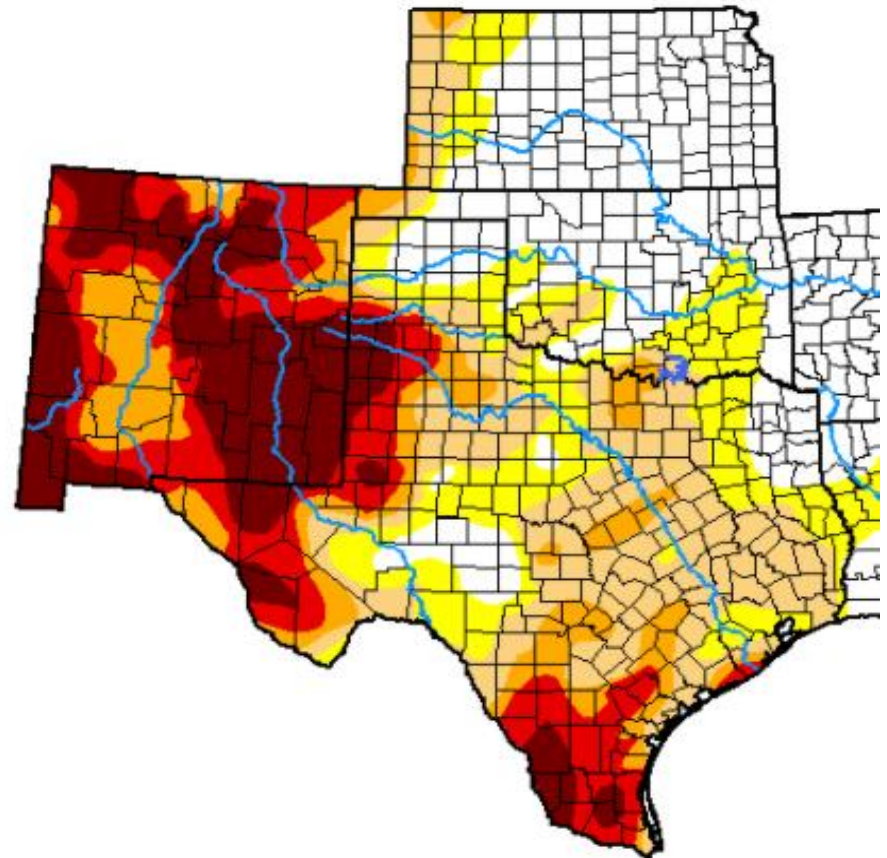
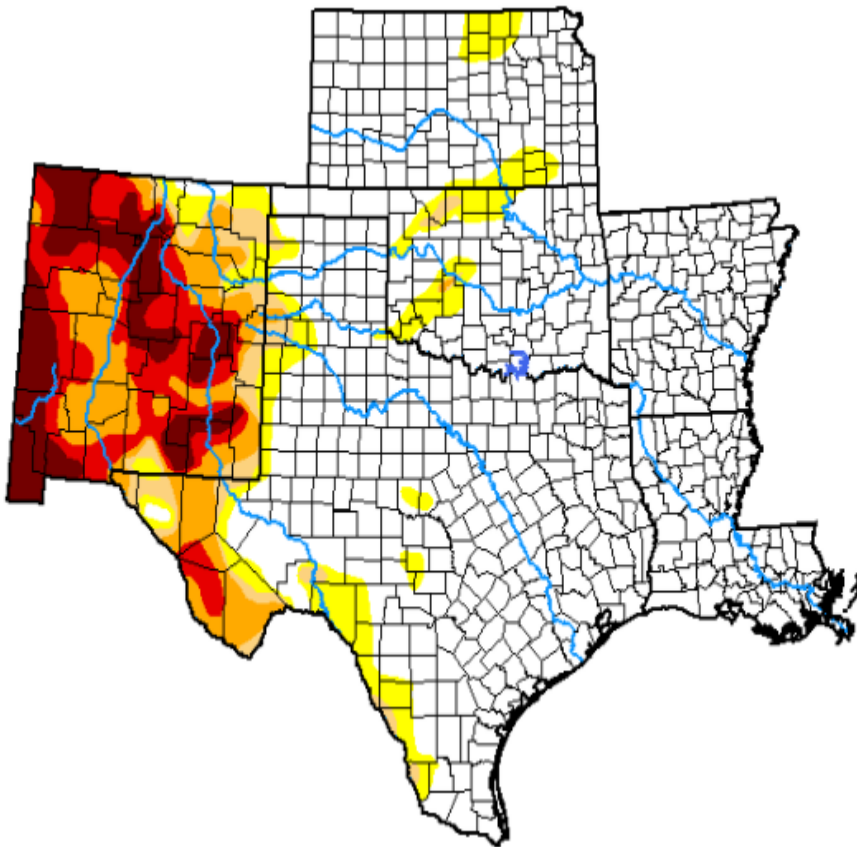


Current drought conditions and 3 month change

- Abnormally Dry – D0
- Moderate Drought – D1
- Severe Drought – D2
- Extreme Drought – D3
- Exceptional – D4

June 29, 2021

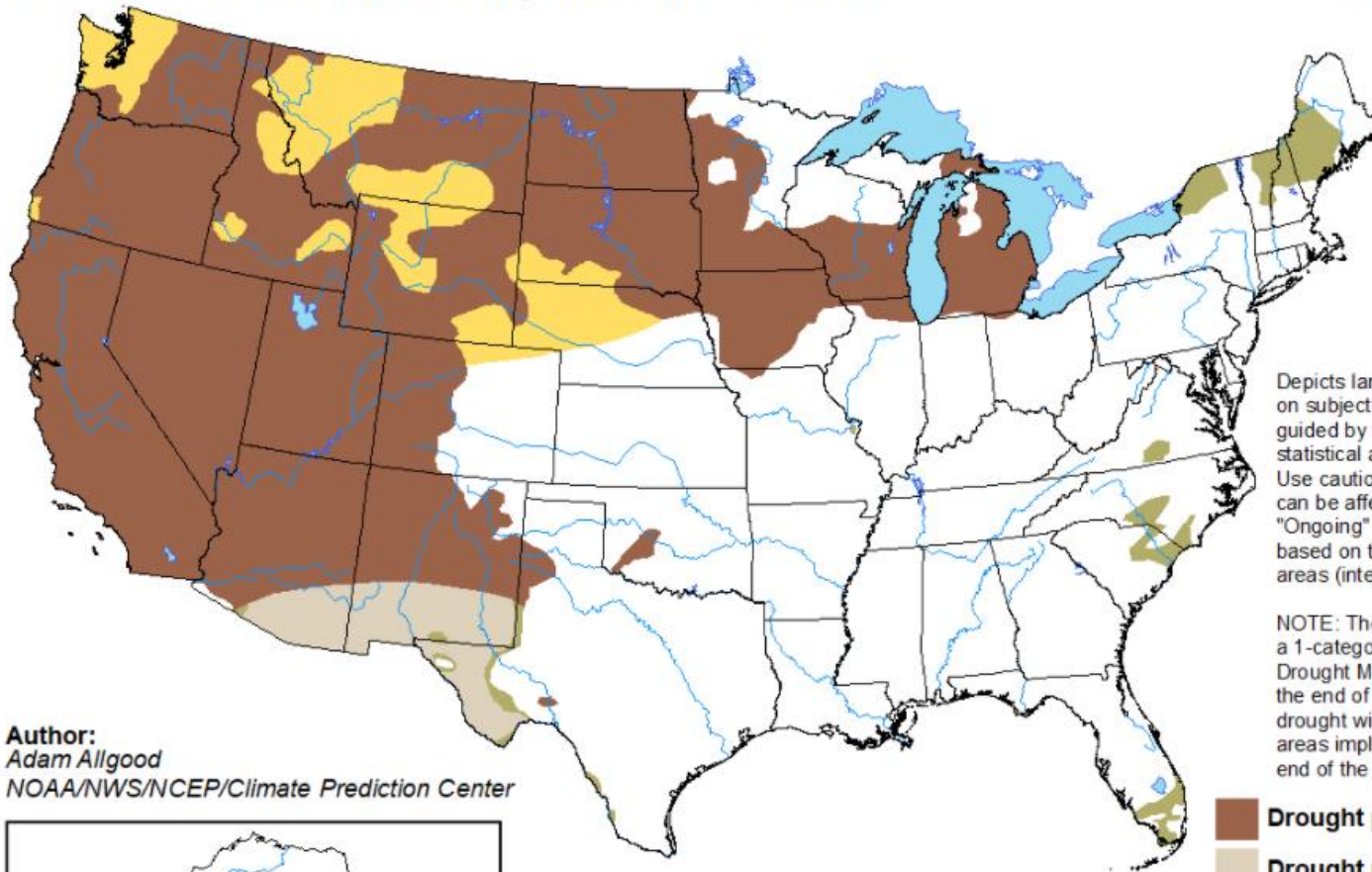
March 30, 2021



U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for June 17 - September 30, 2021
Released June 17

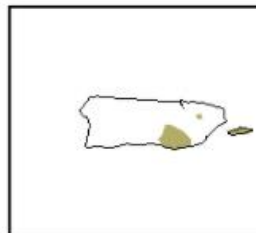
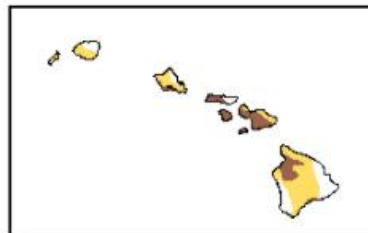


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:
Adam Allgood
NOAA/NWS/NCEP/Climate Prediction Center

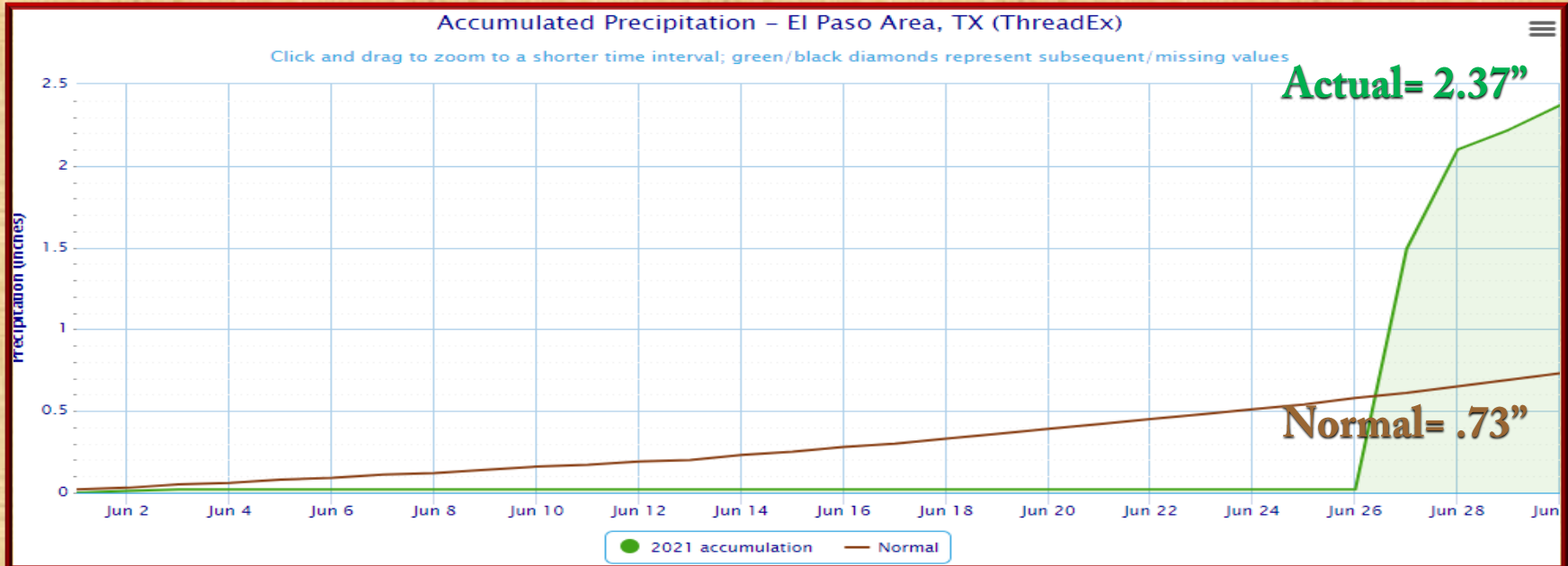
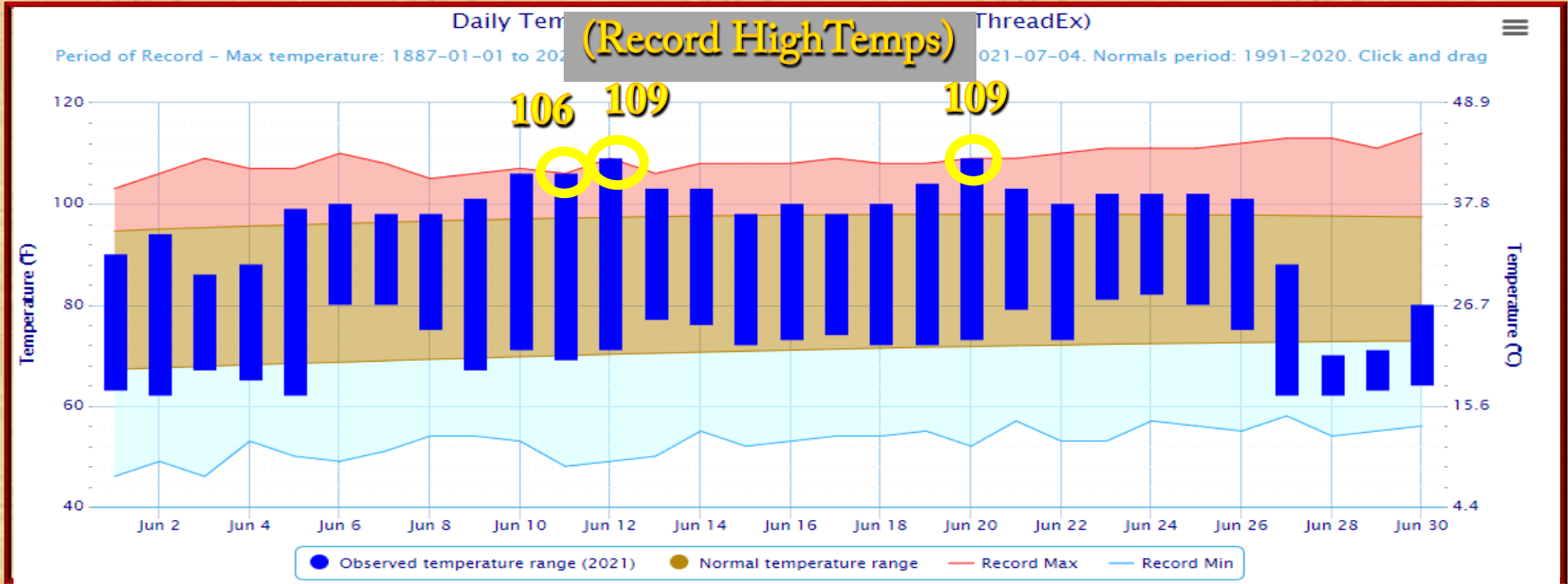
-  Drought persists
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely



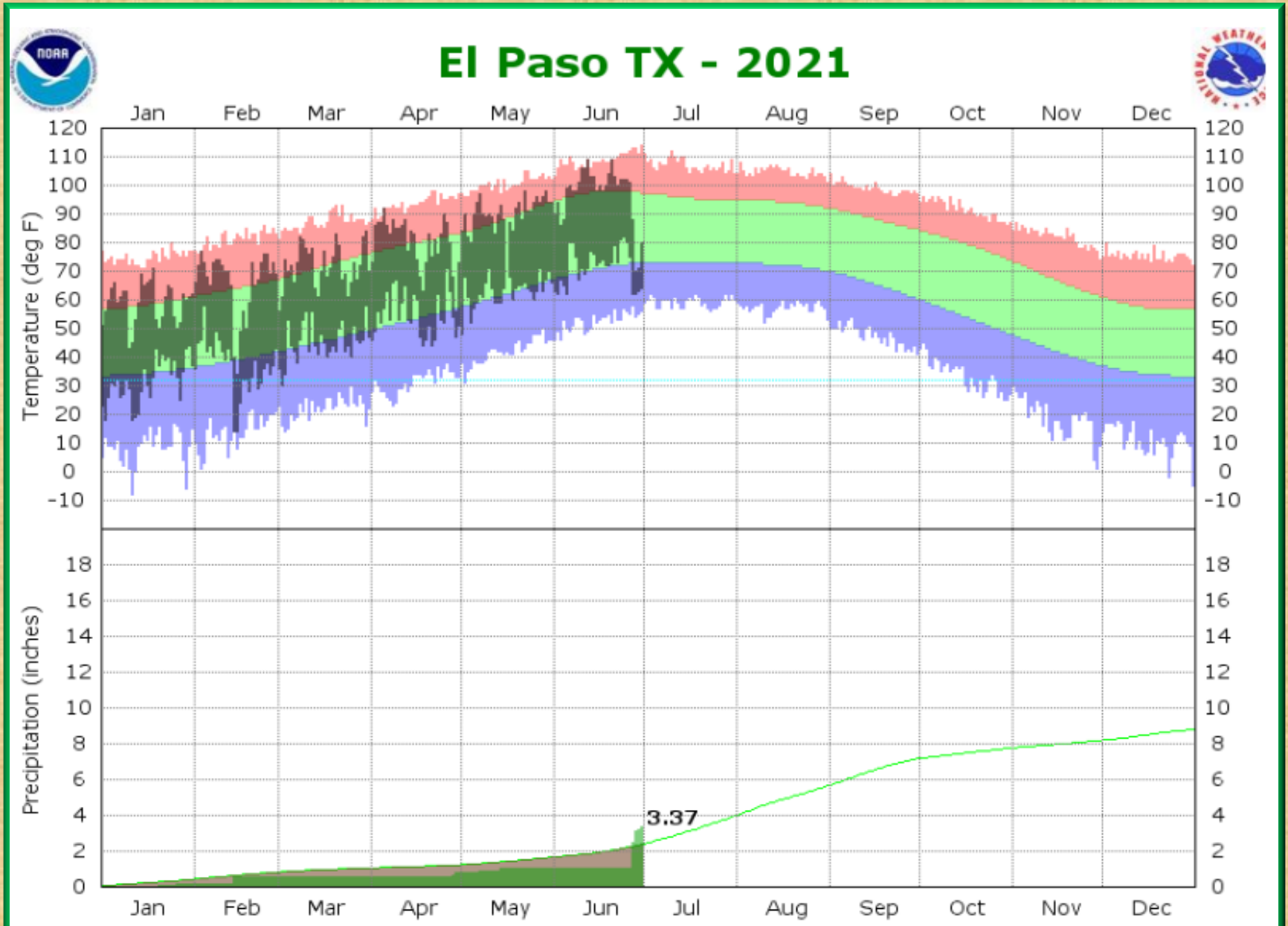
<http://go.usa.gov/3eZ73>

Temperature and precipitation data for June 2021 in El Paso

○ = record



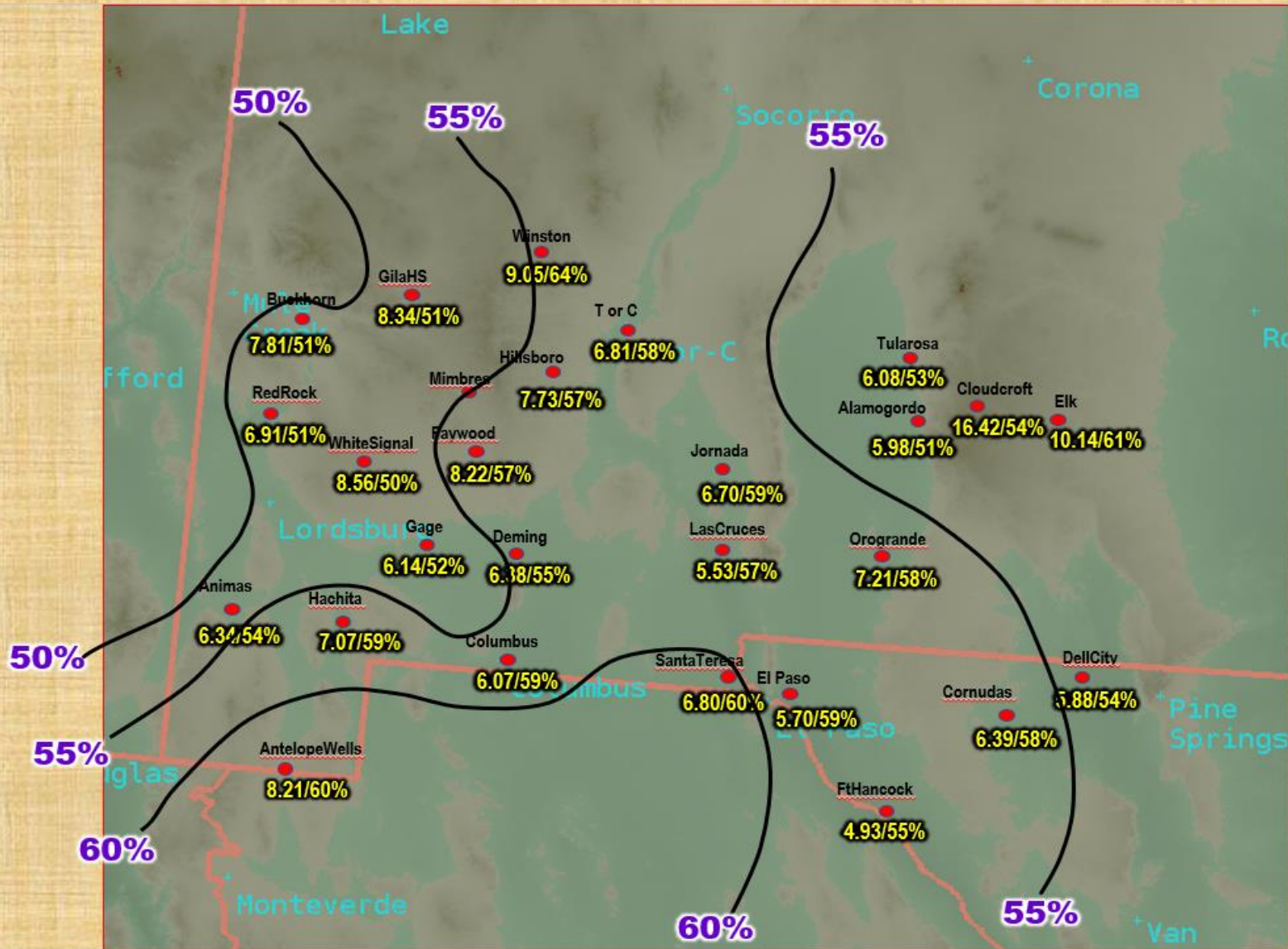
2021: Temperature and Precipitation YTD Data for El Paso



Tracking the 2021 Monsoon Season across the El Paso Forecast Area

The long term average for the beginning of the Monsoon season normal begins around July 5, but it looks like this year the seasonal wind change pattern will begin the very last day or two of June. We use several parameters to judge the onset of the Monsoon from various studies. One important feature is the dewpoint. Persistent (>5 days) dewpoint temperatures above 50 degrees has occurred, beginning around June 29 or 30 [see fig. 1]. Another parameter to look at is sea surface temperatures in the northern Gulf of California [see fig. 2]. Studies have shown that temperatures of 26C in this area lead to an onset of the Monsoon within about 5-10 days. The temperature reached this mark around June 27 this year. The rain at the end of June was mostly pre-Monsoon as an upper low in the polar jet dropped over us. However, by the last day or two of June this low moved off and then the Bermuda high pressure cell extended westward to the Desert Southwest [see fig. 1], thus beginning the upper pattern of the Monsoon. Finally, the Outgoing Longwave Radiation and Satellite Precipitation maps [see fig. 3] from late June showed that widespread convection/rainfall had spread from the Sierra Madre Occidentals and northern Mexico up over New Mexico and west Texas.

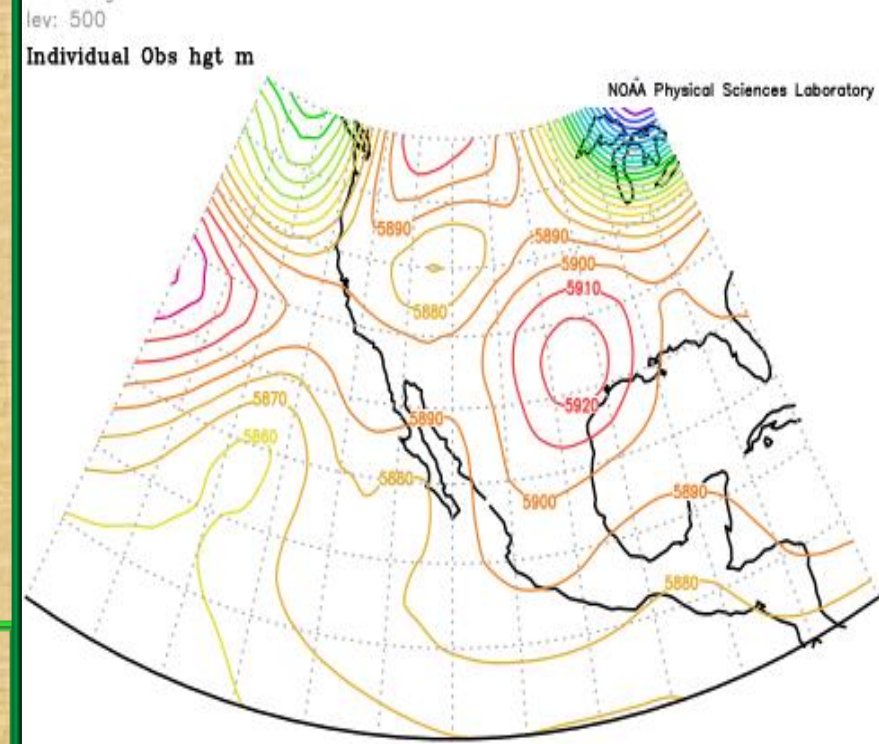
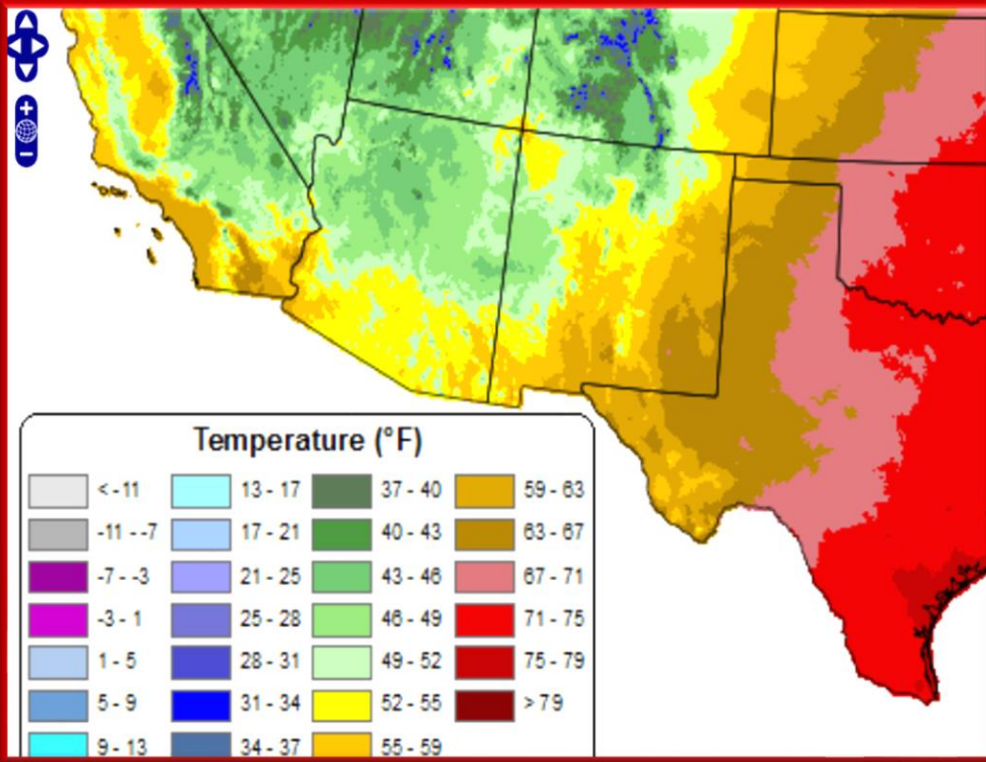
Tracking the 2021 Monsoon Season across the El Paso Forecast Area



Percent of annual precipitation falling during the monsoon season (Jun 15 – Sep 30)

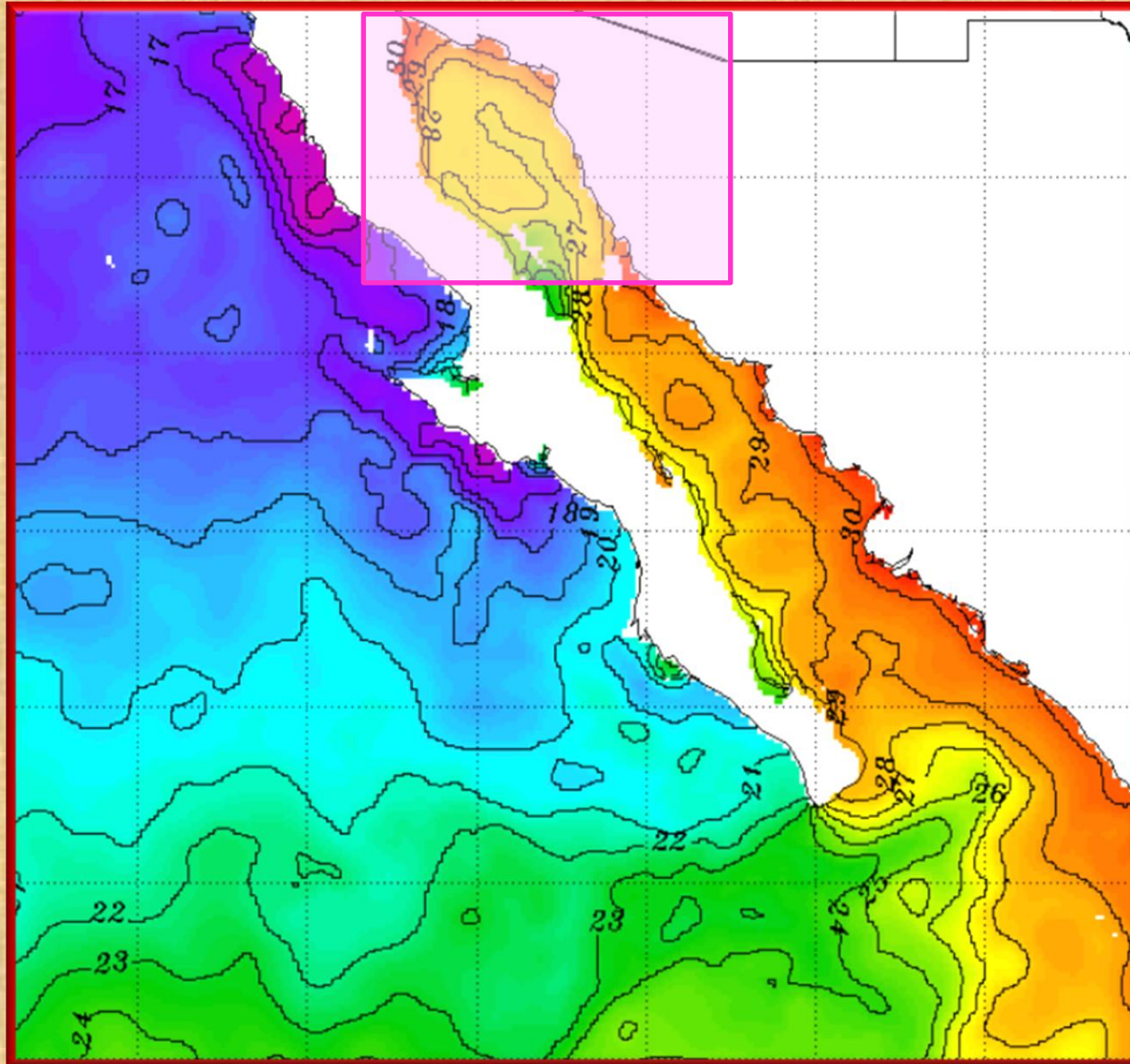
Tracking the 2021 Monsoon Season across the El Paso Forecast Area. Fig 1

June 30 – Dewpoints reach into the 50s across the area



By July 2, 500mb sub-tropical high reaches the Desert Southwest

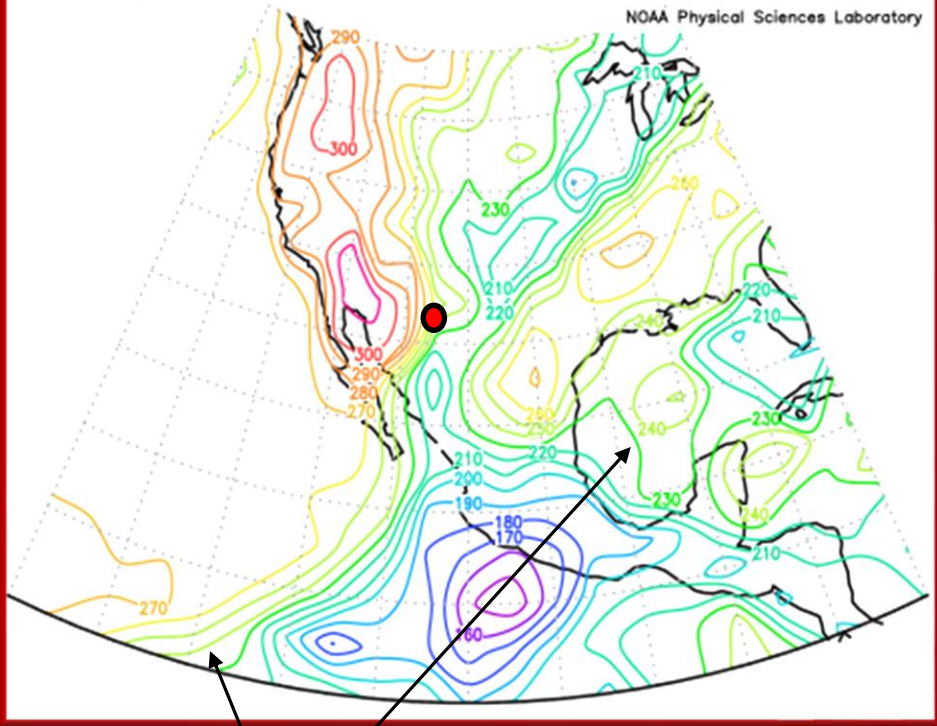
Tracking the 2021 Monsoon Season across the El Paso Forecast Area. Fig. 2



June 27 – Sea surface temperatures in the northern Gulf of California reach 26C deg (79F)

Tracking the 2021 Monsoon Season across the El Paso Forecast Area. Fig. 3

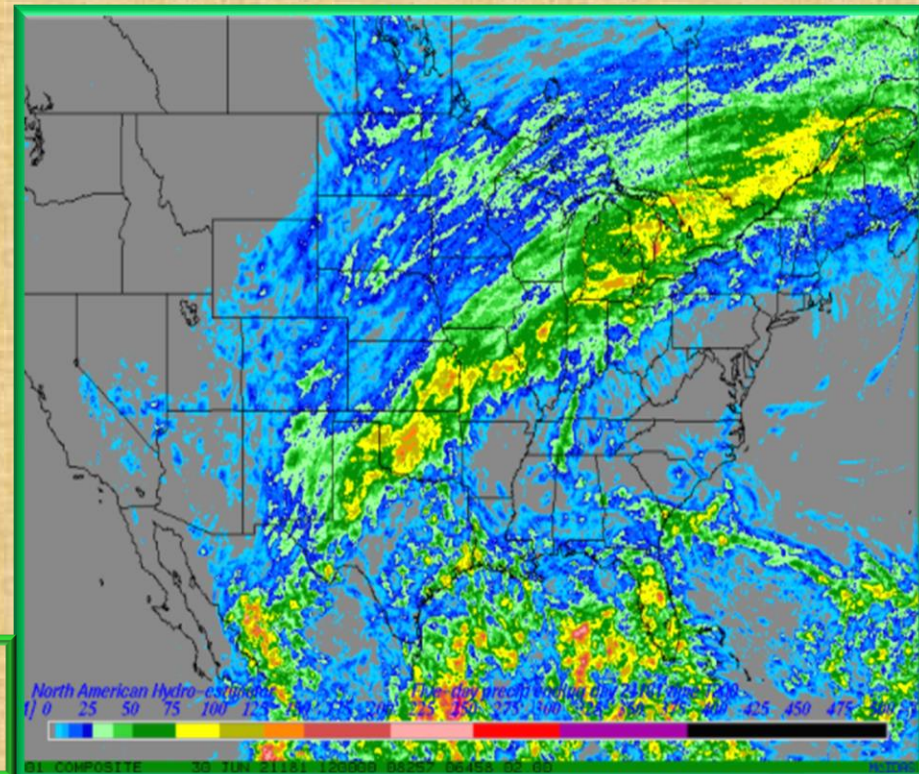
t: averaged over Jun 25 2021 to Jun 29 2021
lev: 0
Mean olr W/m²



June 29 – Outgoing Longwave Radiation (OLR) diminishes to less than 240 W/m². Thick clouds and anvil tops from thunderstorms diminish the OLR values, often indicative of the monsoon moisture and thunderstorms moving into the area.

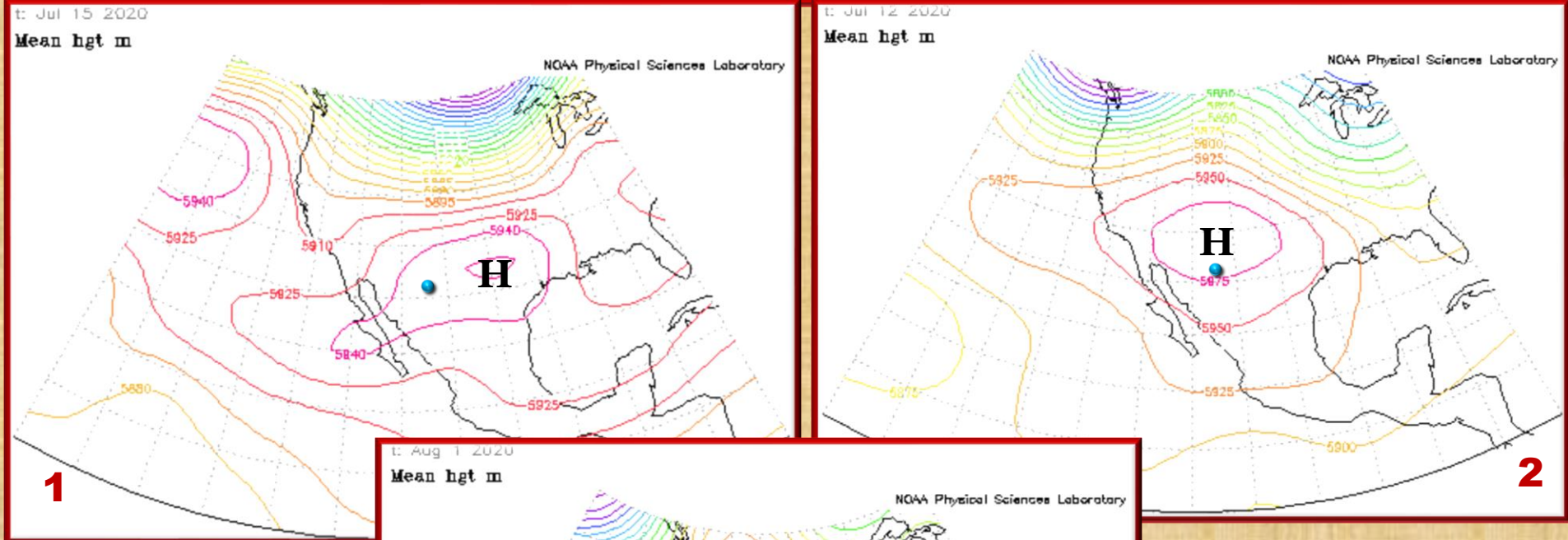
Lime Green lines=230

By June 26-30 the first area wide Monsoon precipitation occurs



Tracking the 2021 Monsoon Season across the El Paso Forecast Area. Fig. 4

Position of NAM upper high determines our rainfall potential. Blue dot represents El Paso.

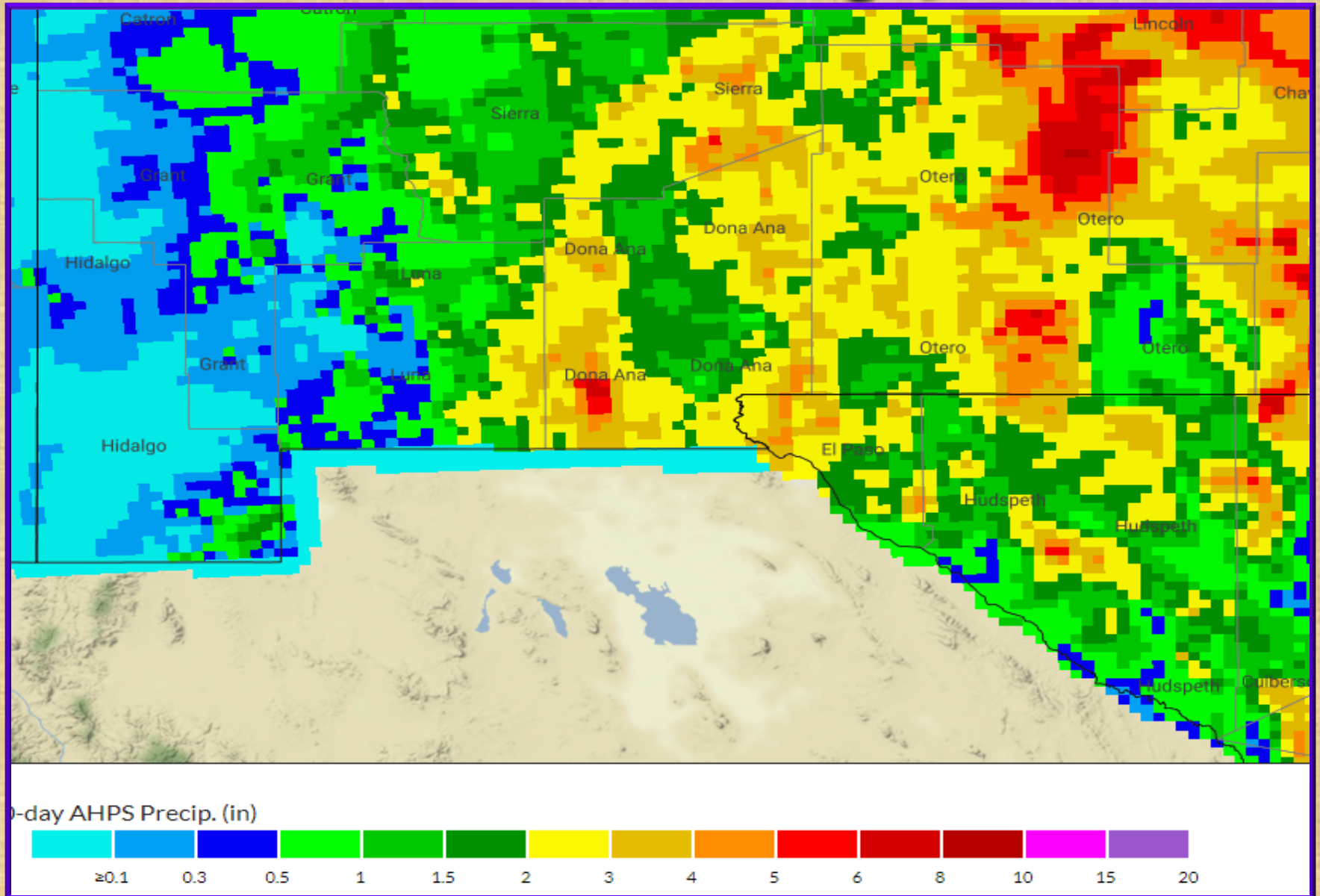


No. 1 High center east of New Mexico. Often brings ample tropical moisture and widespread heavy rain and flooding to the area

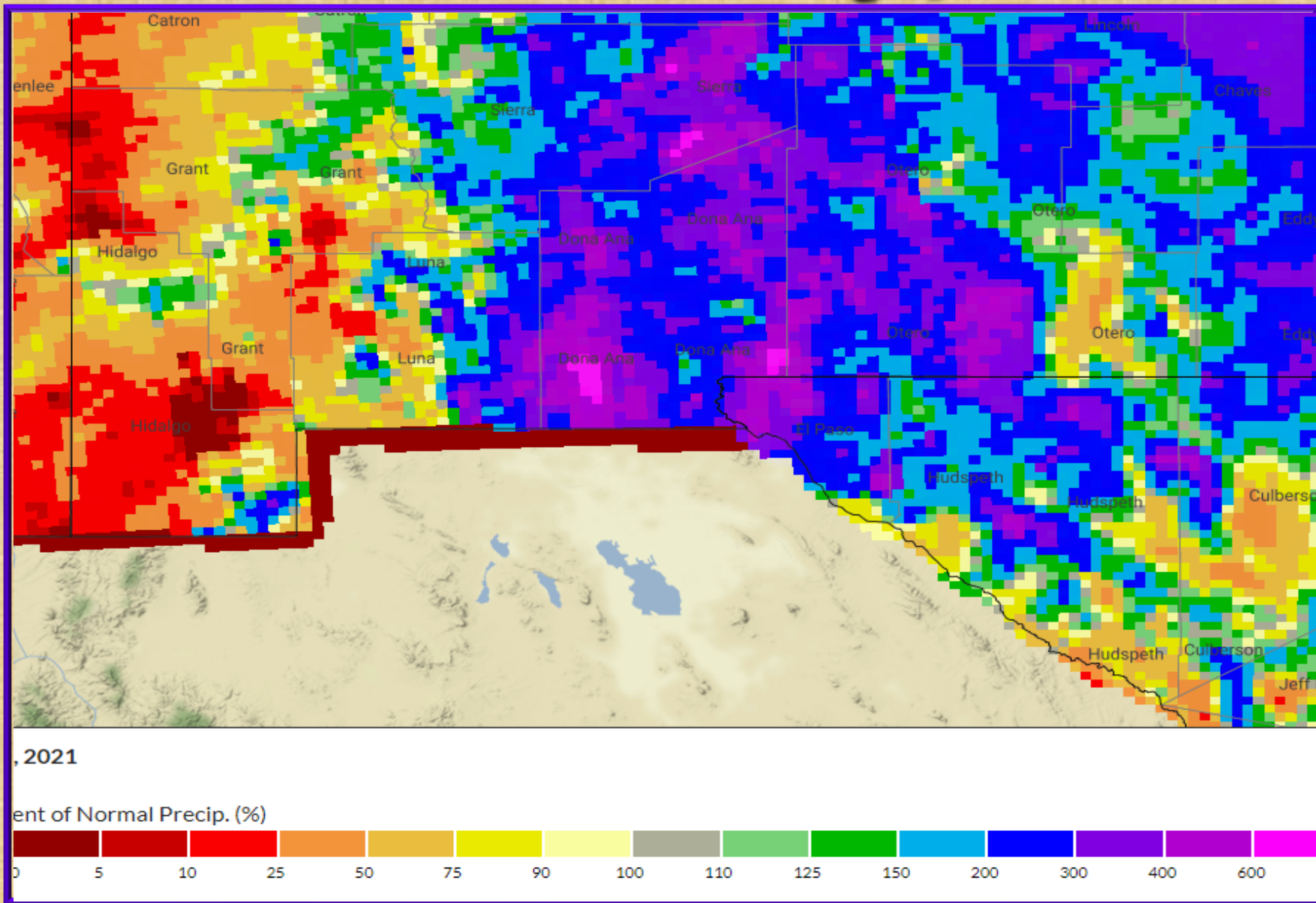
No. 2 High center over New Mexico. Often brings very hot temperatures and little if any rain (usually limited to the mountains).

No. 3 High center west of New Mexico. Often brings scattered storms with hit and miss heavy rains and large hail and strong wind potential.

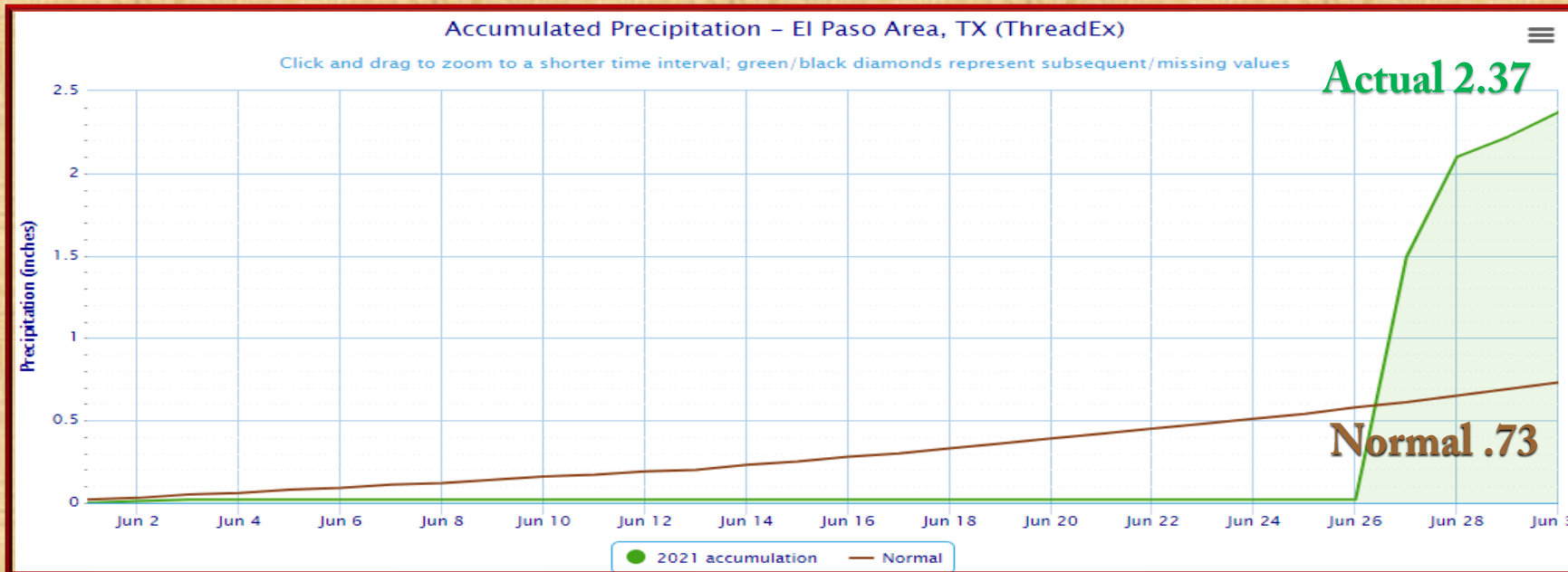
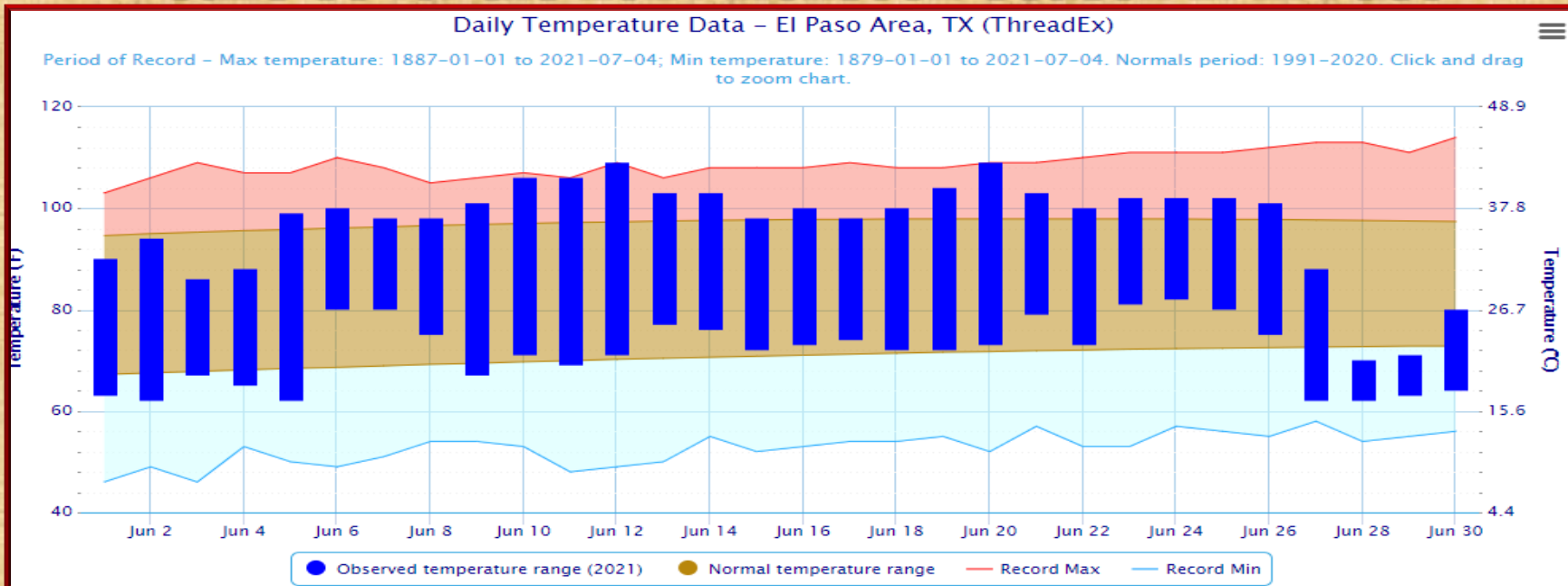
Radar rainfall estimate for the Monsoon Season 2001 through June 30



Radar rainfall estimate percent of normal for Monsoon season 2021 through June 30



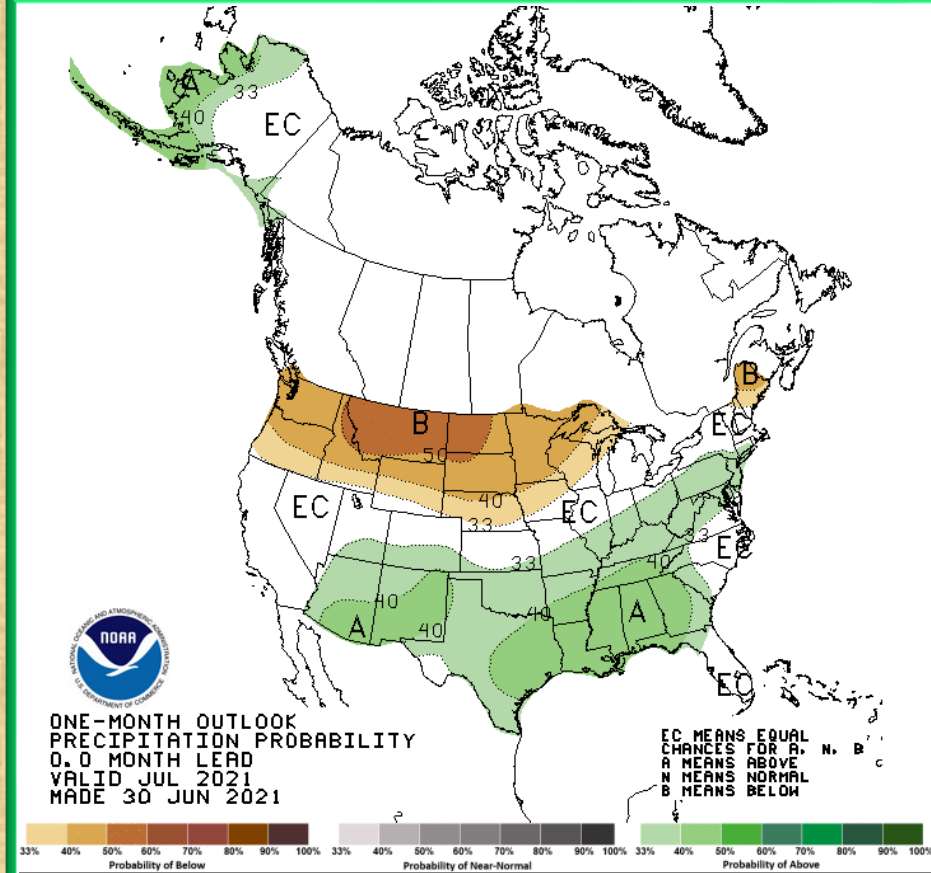
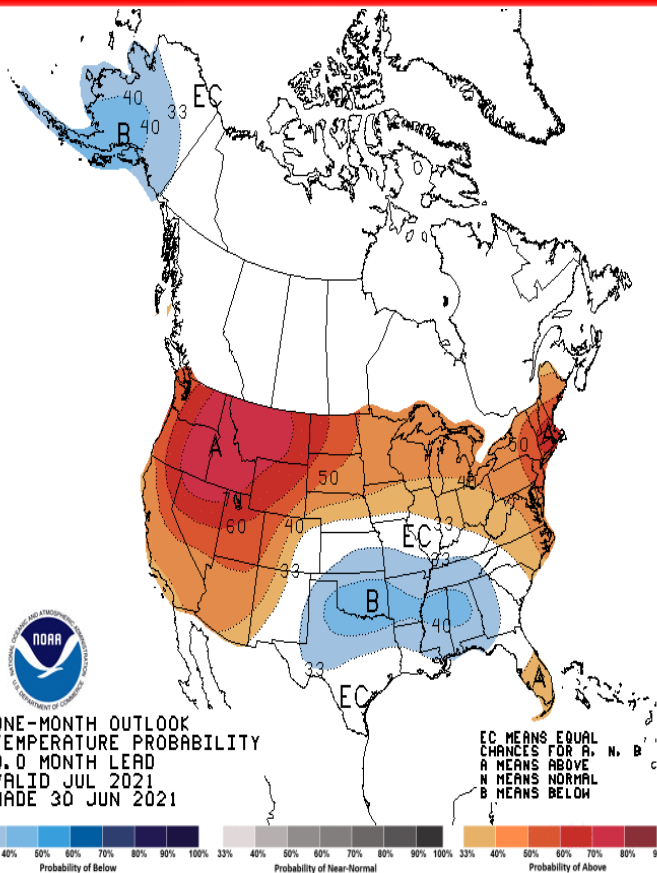
Temperature and precipitation data through June 30 for the 2021 Monsoon Season in El Paso



Temperature and precipitation outlook for July 2021

Temperature

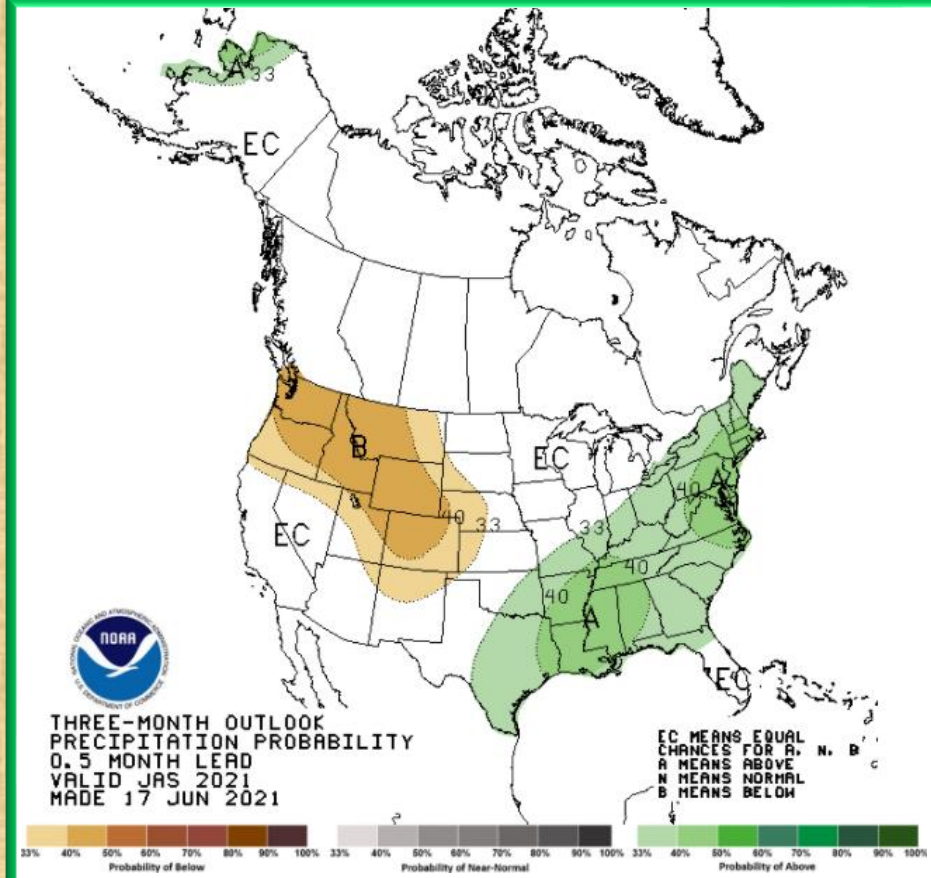
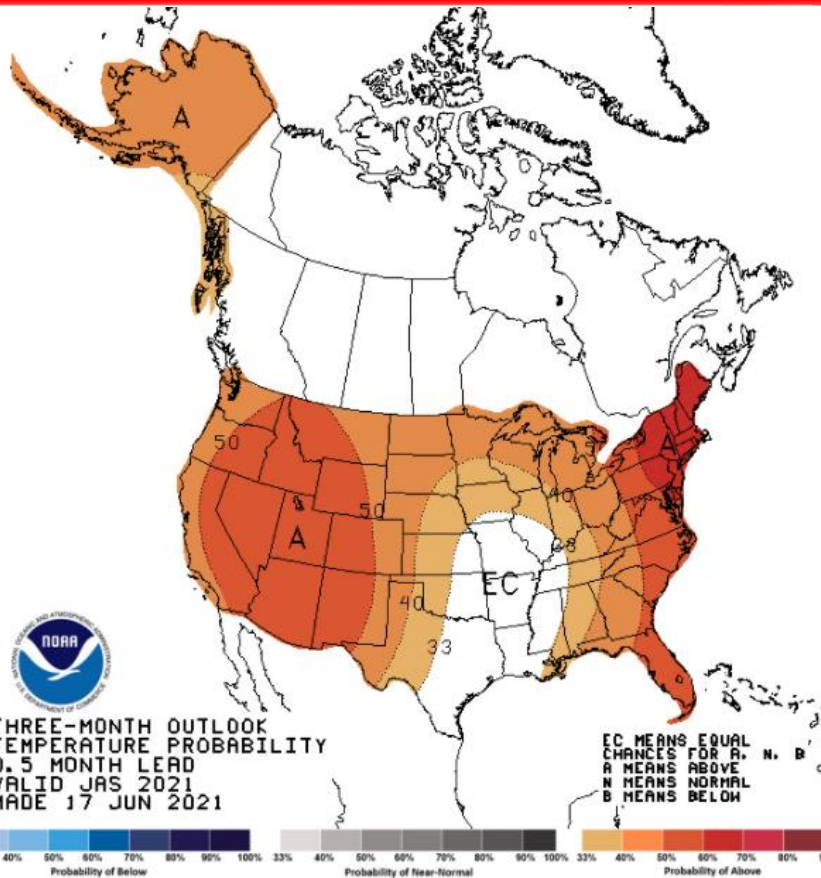
Precipitation



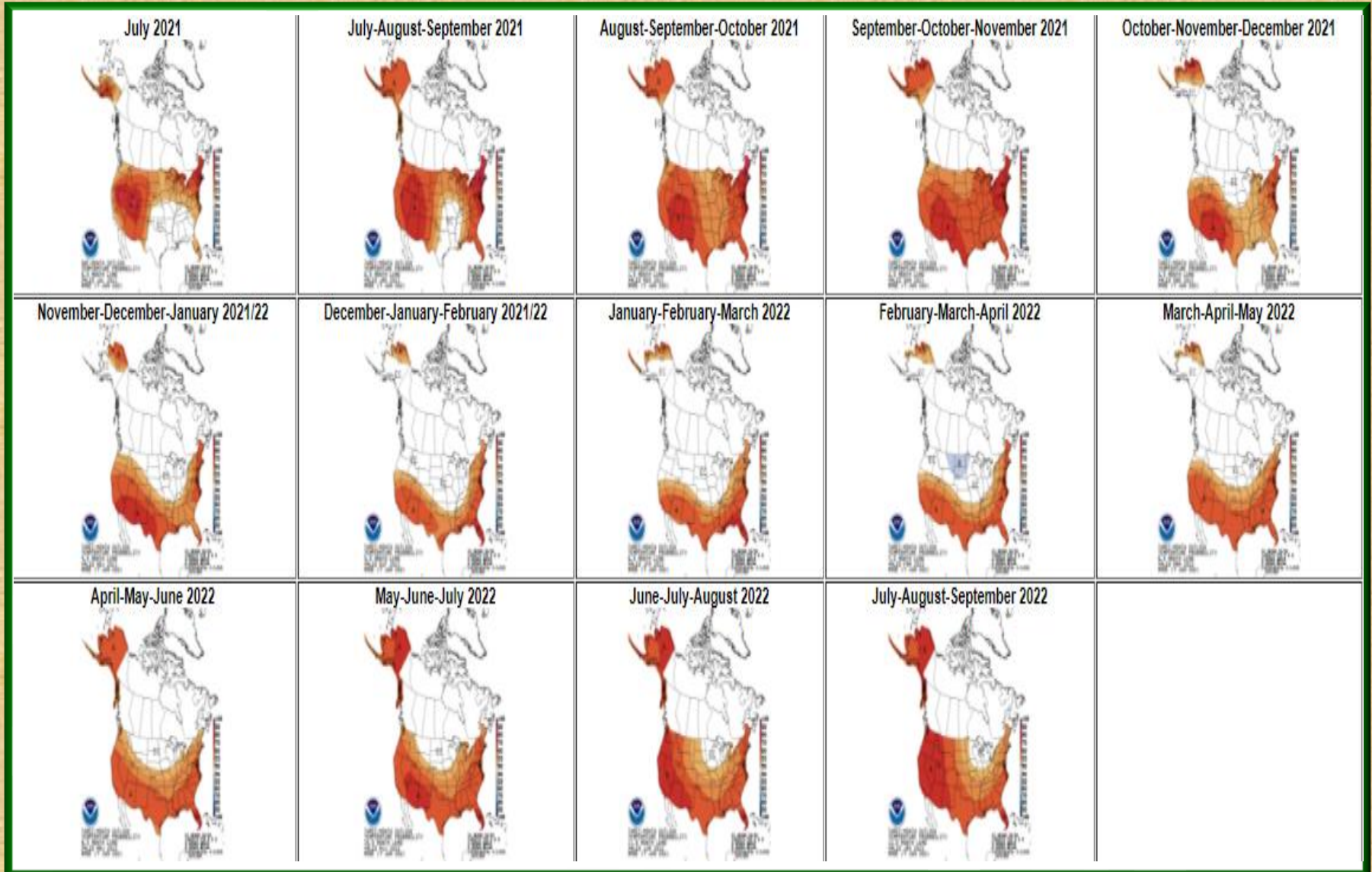
Temperature and precipitation outlook For July-September 2021

Temperature

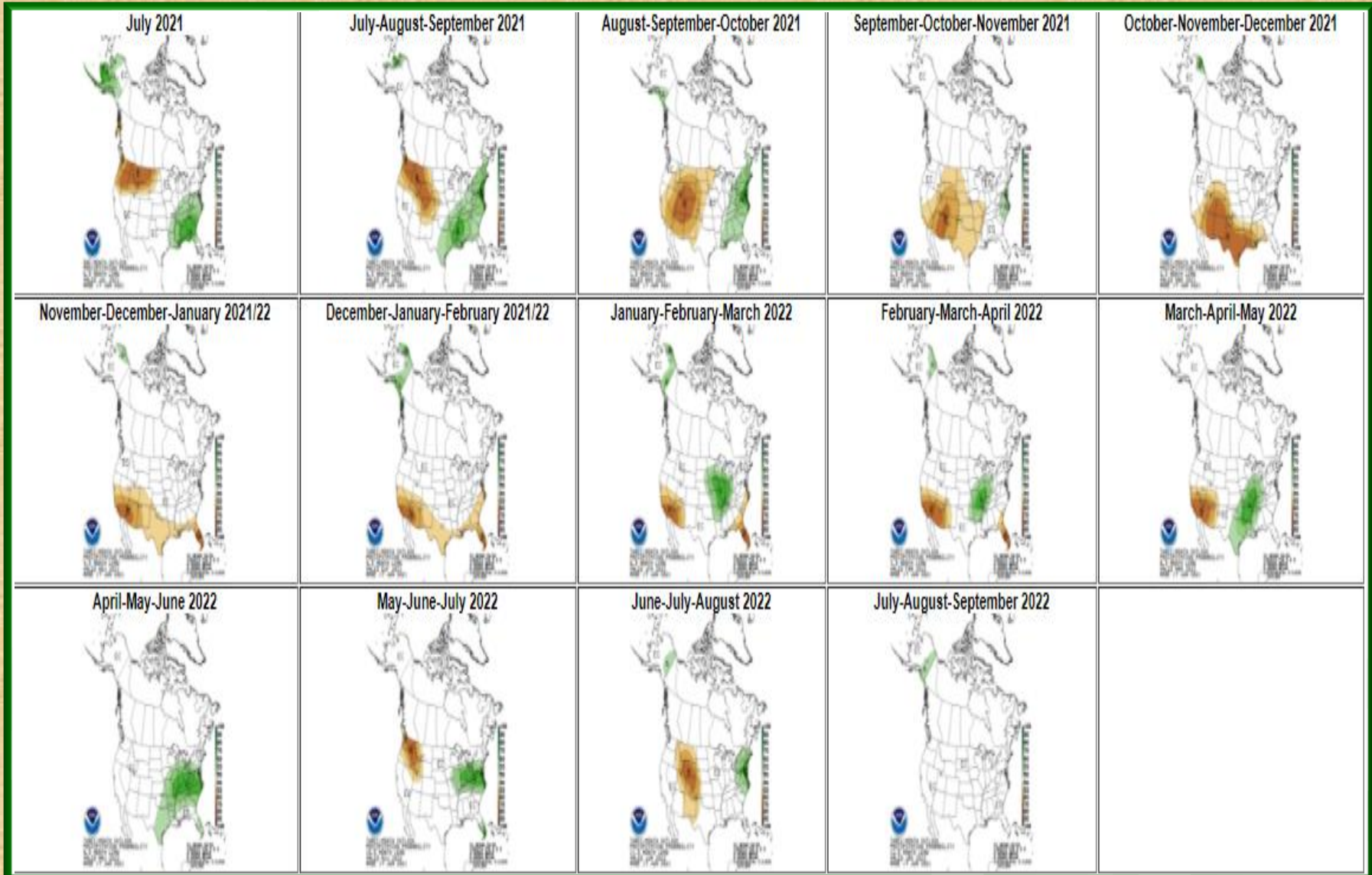
Precipitation



Temperature Outlook Through September 2022



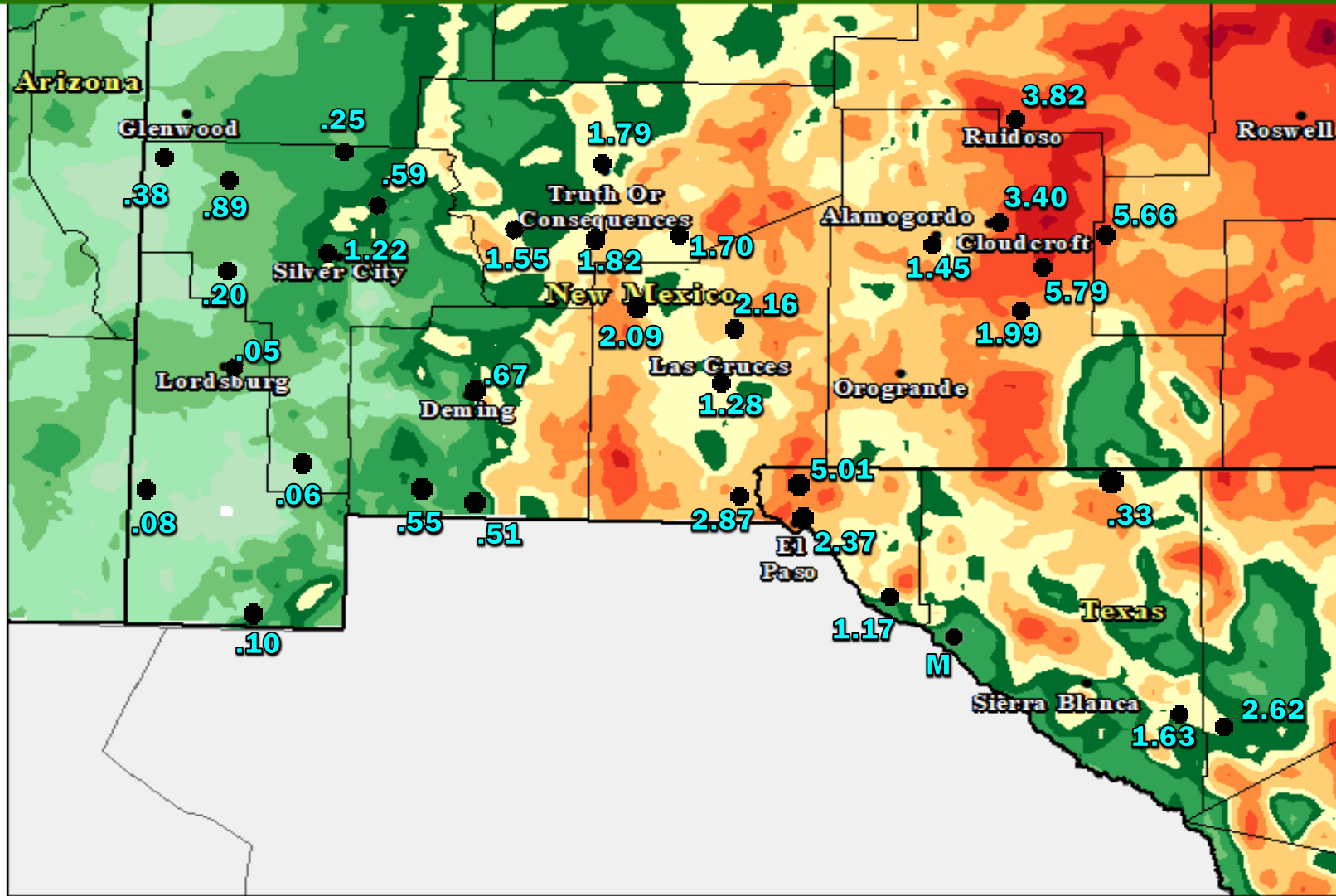
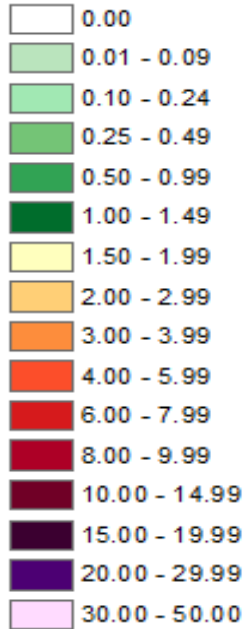
Precipitation Outlook Through September 2022



June 2021 radar rainfall estimate with surface rainfall reports

Total Monthly Precipitation - June 2021

Inches



Created by the
NWS Forecast Office
El Paso, TX

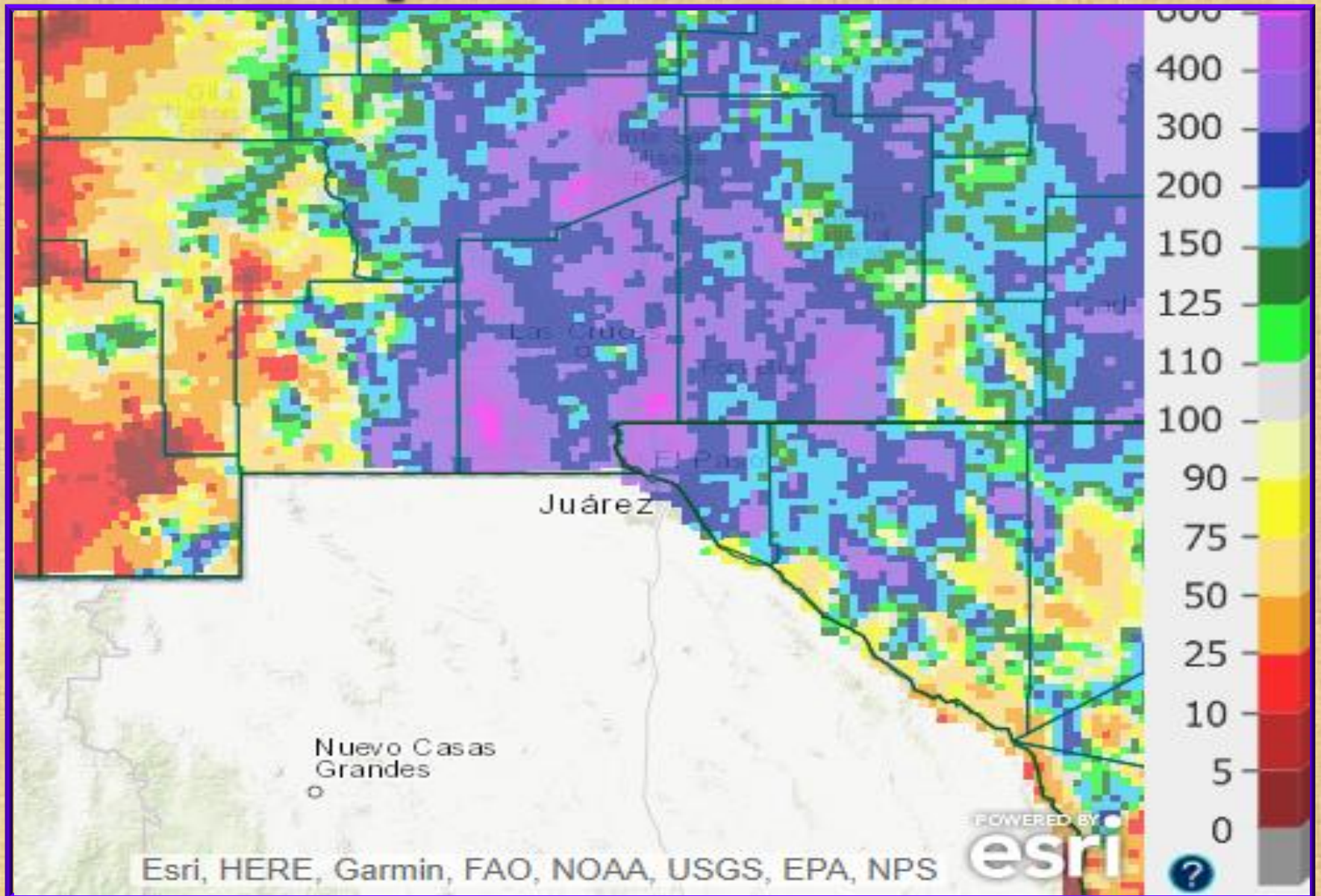


0 25 50
Miles

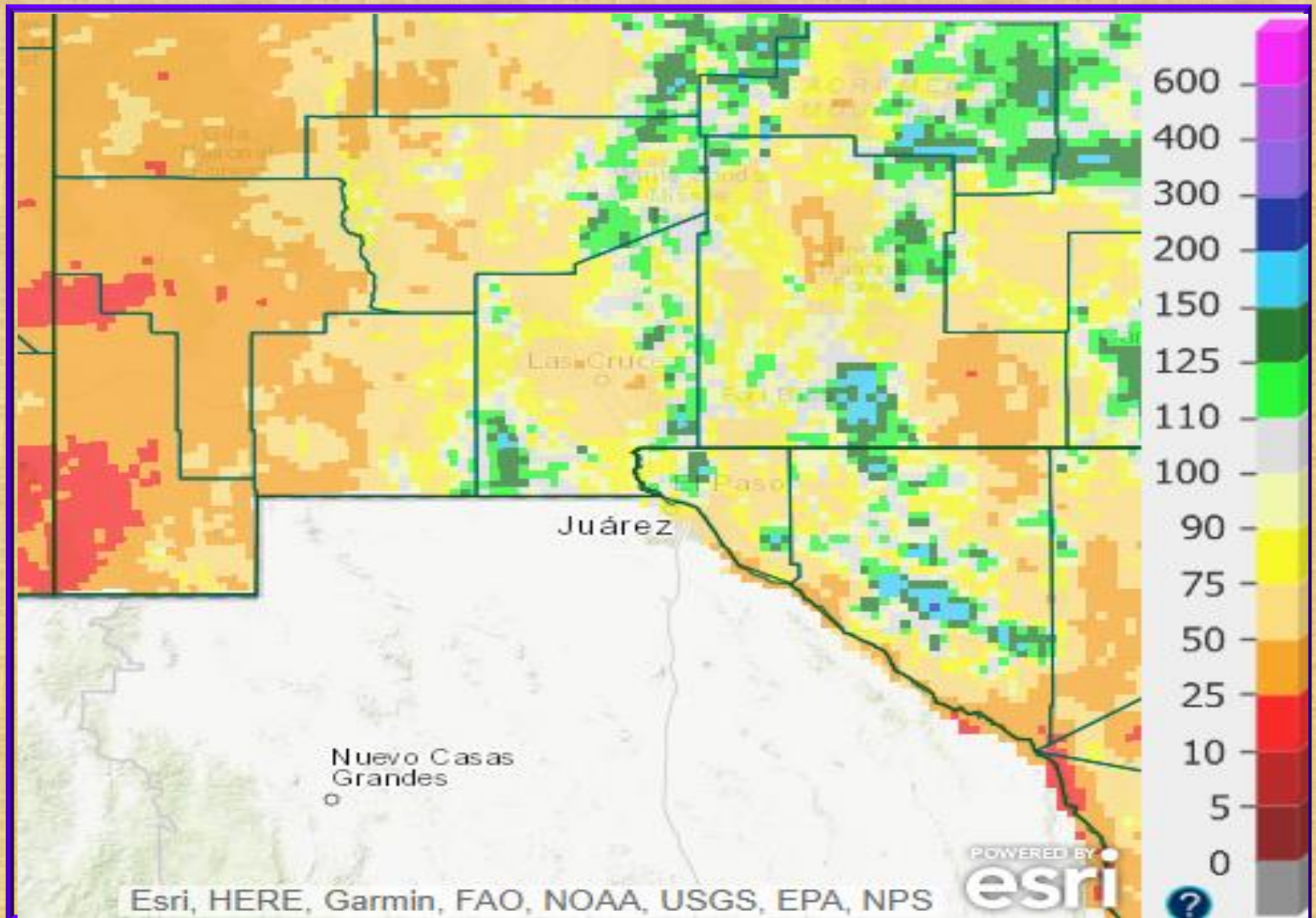
Source: NWS Advanced
Hydrologic Prediction Service

Created: 07/01/2021 2000 UTC

June 2021 radar rainfall estimate percent of normal



Radar rainfall estimate percent of normal for the Water Year (Oct 1 – June 30)

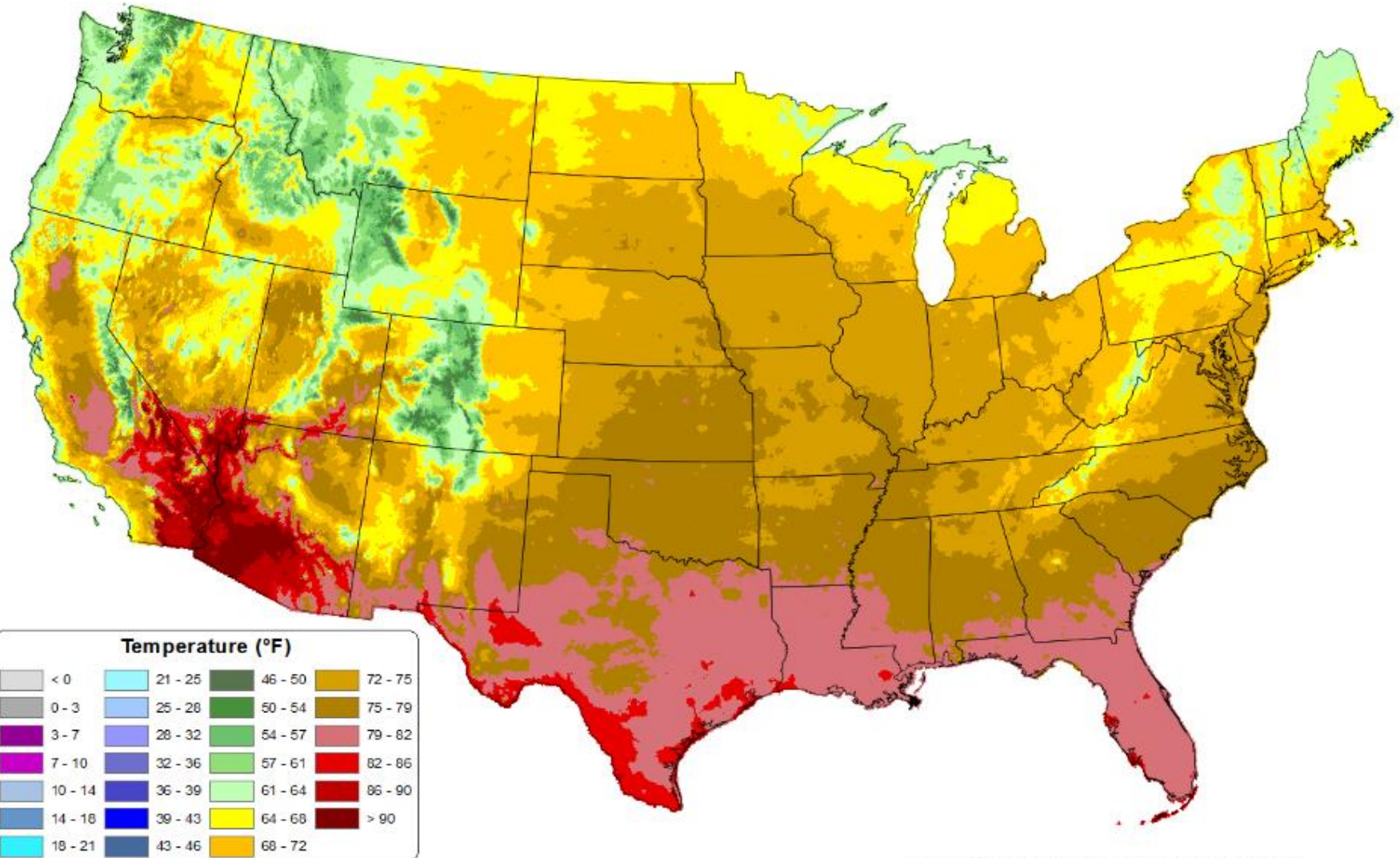


Average Daily Mean Temperature for June 2021

Average Daily Mean Temperature: Jun 2021

Period ending 7 AM EST 30 Jun 2021

(Map created 02 Jul 2021)

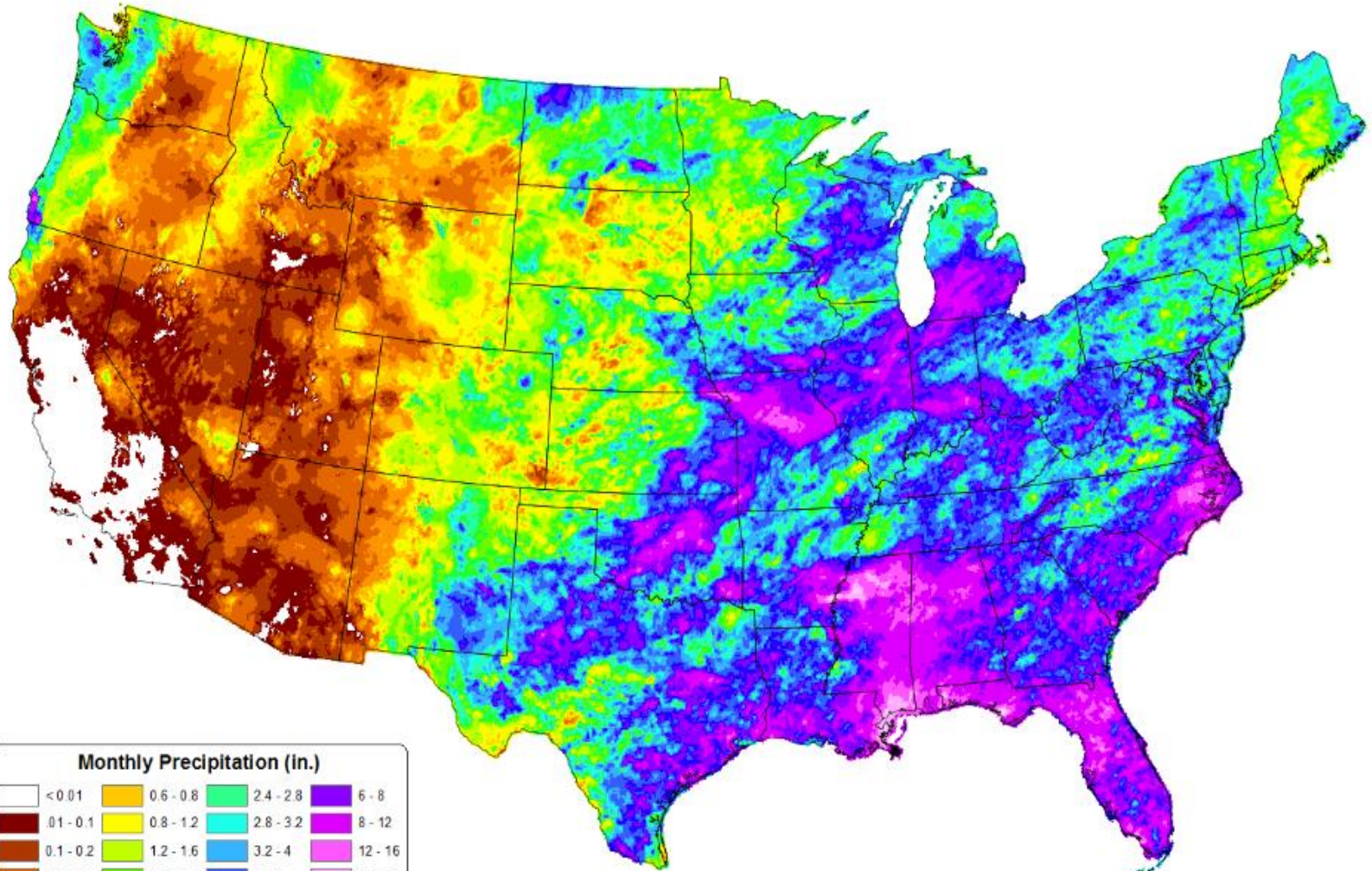


Total Precipitation for June 2021

Total Precipitation: Jun 2021

Period ending 30 Jun 2021

(Map created 02 Jul 2021)



Monthly Precipitation (in.)



Selected Weather Reports June 2021

Date/Time	Location (County)	Event
JUNE 11	EL PASO INTL ARPT-EL PASO	106 DAILY HIGH RECORD
JUNE 11	SANTA TERESA NWS-DONA ANA	104 DAILY HIGH RECORD
JUNE 11	HILLSBORO-SIERRA	104 DAILY HIGH RECORD
JUNE 11	LAS CRUCES ARPT-DONA ANA	103 DAILY HIGH RECORD
JUNE 11	T OR C-SIERRA	102 DAILY HIGH RECORD
JUNE 11	ALAMOGORDO-OTERO	102 DAILY HIGH RECORD
JUNE 11	CLOUDCROFT-OTERO	82 DAILY HIGH RECORD
JUNE 12	EL PASO INTL ARPT-EL PASO	109 DAILY HIGH RECORD
JUNE 12	SANTA TERESA NWS-DONA ANA	107 DAILY HIGH RECORD
JUNE 12	LAS CRUCES ARPT-DONA ANA	107 DAILY HIGH RECORD
JUNE 12	HACHITA-GRANT	106 DAILY HIGH RECORD
JUNE 12	REDROCK-GRANT	105 DAILY HIGH RECORD

Selected Weather Reports June 2021

Date/Time	Location (County)	Event
JUNE 12	T OR C-SIERRA	104 DAILY HIGH RECORD
JUNE 12	ALAMOGORDO ARPT-OTERO	104 DAILY HIGH RECORD
JUNE 12	HILLSBORO-GRANT	103 DAILY HIGH RECORD
JUNE 12	GILA HOT SPRINGS-GRANT	100 DAILY HIGH RECORD
JUNE 12	SILVER CITY ARPT-GRANT	100 DAILY HIGH RECORD
JUNE 12	CLOUDCROFT-OTERO	87 DAILY HIGH RECORD
JUNE 13	REDROCK-GRANT	107 DAILY HIGH RECORD
JUNE 13	DEMING-LUNA	106 DAILY HIGH RECORD
JUNE 13	HACHITA-GRANT	106 DAILY HIGH RECORD
JUNE 13	LAS CRUCES-DONA ANA	103 DAILY HIGH RECORD
JUNE 13	T OR C ARPT-SIERRA	102 DAILY HIGH RECORD
JUNE 13	ALAMOGORDO ARPT-OTERO	102 DAILY HIGH RECORD

Selected Weather Reports June 2021

Date/Time	Location (County)	Event
JUNE 13	SILVER CITY ARPT-GRANT	100 DAILY HIGH RECORD
JUNE 13	GILA HOT SPRINGS-GRANT	100 DAILY HIGH RECORD
JUNE 20	EL PASO ARPT-EL PASO	109 DAILY HIGH RECORD
JUNE 20	DEMING ARPT-LUNA	108 DAILY HIGH RECORD
JUNE 20	REDROCK-GRANT	107 DAILY HIGH RECORD
JUNE 20	LAS CRUCES ARPT-DONA ANA	106 DAILY HIGH RECORD
JUNE 20	ALAMOGORDO-OTERO	106 DAILY HIGH RECORD
JUNE 20	SANTA TERESA NWS-DONA ANA	106 DAILY HIGH RECORD
JUNE 20	T OR C ARPT-SIERRA	105 DAILY HIGH RECORD
JUNE 20	SILVER CITY ARPT-GRANT	101 DAILY HIGH RECORD
JUNE 20	CLOUDCROFT	87 DAILY HIGH RECORD
JUNE 30	EL PASO 3NE-EL PASO	4.69" 3 DAY RAINFALL

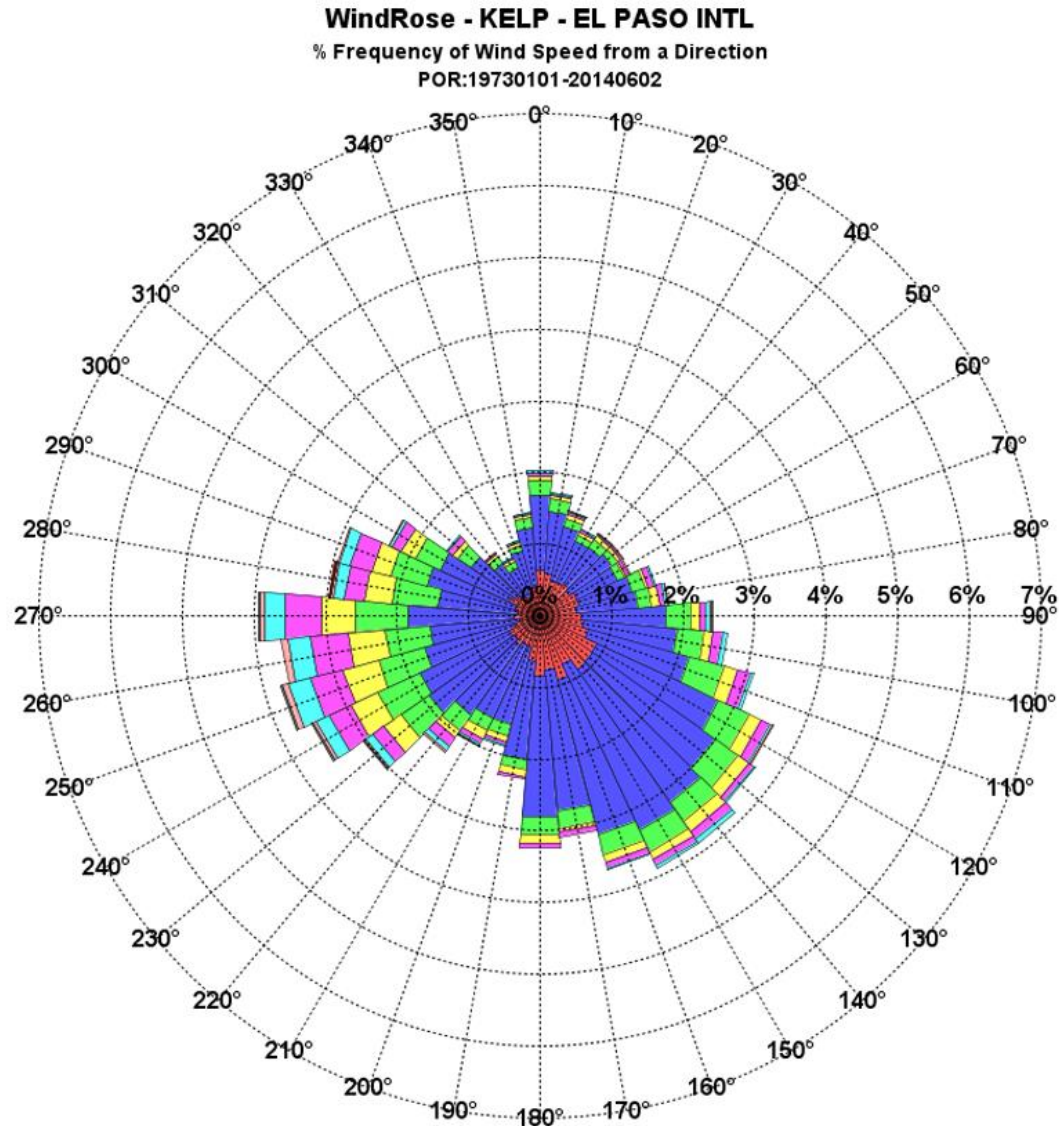
Selected Weather Reports June 2021

Date/Time	Location (County)	Event
JUNE 30	MAYHILL 4SE-OTERO	4.11" 3 DAY RAINFALL
JUNE 30	CLOUDCROFT 4E-OTERO	3.93" 3 DAY RAINFALL
JUNE 30	LAS CRUCES 9NE-DONA ANA	2.78" 3 DAY RAINFALL
JUNE 30	SANTA TERESA NWS-DONA ANA	2.59" 3 DAY RAINFALL
JUNE 30	SILVER CITY 2NW-GRANT	2.57" 3 DAY RAINFALL
JUNE 30	DEMING 16SE-LUNA	2.41" 3 DAY RAINFALL
JUNE 30	CHAPARRAL-DONA ANA	2.22" 3 DAY RAINFALL
JUNE 30	MIMBRES 7NW-GRANT	2.21" 3 DAY RAINFALL
JUNE 30	EL PASO INTL AIRPORT-EL PASO	2.11" 3 DAY RAINFALL
JUNE 30	T OR C AIRPORT-SIERRA	1.76" 3 DAY RAINFALL
JUNE 30	DRIPPING SPRINGS-DONA ANA	1.76" 3 DAY RAINFALL
JUNE 30	SUNLAND PARK 7NW-DONA ANA	1.54" 3 DAY RAINFALL

Special Features

<http://www.srh.noaa.gov/epz/?n=elpwindrosedata>

Month: JUNE
Calm: 8.00%
Variable: 3.55%



Local forecast by "City, St" or ZIP code
 Enter location ...
[Location Help](#)

Heavy Rain and Flash Flooding Possible Over Parts of the Eastern United States
 Heavy rainfall is expected over portions of the eastern United States through Thursday. Flooding and flash flooding will be possible in some areas. Click the "Read More" link for excessive rainfall forecasts from the Weather Prediction Center. [Read More >](#)

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NWS El Paso
[Weather.gov > El Paso, TX](#)

El Paso, TX
 Weather Forecast Office

Current Hazards Current Conditions Radar Forecasts Rivers and Lakes Climate and Past Weather **Local Programs**

Today

Wednesday
 Warmer with a Few Afternoon Storms
 Weather Forecast Office
 El Paso, TX
 September 27, 2016 4:43 PM

Local forecast by "City, St" or ZIP code
 Enter location ...
[Location Help](#)

Heavy rain expected across the Mid-Atlantic region and central Appalachians.
 Heavy rainfall is possible over portions of the eastern United States today, with the highest risk across the Mid-Atlantic and central Appalachians. Click the "Read More" link for excessive rainfall forecasts from the Weather Prediction Center. Afternoon showers and thunderstorms are possible over portions of the Southwest and southern Rockies through Friday. [Read More >](#)

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Monthly Weather Digest
[Weather.gov > El Paso, TX > Monthly Weather Digest](#)

El Paso, TX
 Weather Forecast Office

Current Hazards Current Conditions Radar Forecasts Rivers and Lakes Climate and Past Weather **Local Programs**

Southern New Mexico and Far West Texas has a variety of weather from month to month. Conditions can range from extreme drought, to heavy flooding rains, from record breaking heat to bone chilling cold. Below you will find past weather highlights from the area that the NWS office in Santa Teresa NM covers. This area includes the following counties in New Mexico: Hudspeth, Grant, Luna, Sierra, Doña Ana and Otero and the following counties in Texas: El Paso and Hudspeth.

weather.gov/epz

Don't Forget-Current and past issues of our Weather Digest are available on our website at <http://www.weather.gov/epz/>

Just click on "Local Programs>Weather Digest", then choose which month's Digest to view. Also, though discontinued, don't forget to check out our back issues of Southwest Weather Bulletin.

WEATHER DIGESTS AND BULLETINS	
Weather Digest	Southwest Weather Bulletins
January	2005 Spring Fall
February	2006 Spring Fall
March	2007 Spring Fall
April	2008 Spring Fall
May	2009 Spring Fall
June	2010 Spring Fall
July	2011 Spring Fall
August	2012 Spring Fall
September	2013 Spring Fall
October	2014 Spring Fall
November	
December	