

July 2017
Weather Digest



July 2017 Weather Summary

It has been said the “Climate is what you expect and Weather is what you get” and July finally came through and gave the Borderland what we expected...the start of our wet monsoon. Overall, southern New Mexico and Far West Texas saw from 100% to 300% of its normal July precipitation with many areas experiencing rainfall on more than half of the month.

The wet monsoon is when the surface and upper air winds switch to and predominately prevail from the east southeast (the normal window is from June 15 through September 30). Climatologically in this timeframe , the probabilities of precipitation rise from a an average value of 5% into the 20% to 30% range. Thermal low pressure to our west over the deserts of Arizona and California along with The Subtropical high pressure aloft positioning itself to our east aligns the pressure gradient to channel in moisture from the Gulf of Mexico and Mexico into the Borderland . Fortunately this July so far these atmospheric players along with many other variables ushered in the North American Monsoon (NAM) pretty much on time. The NAM is important for us as we rely on it to provide around 50-60% of our annual precipitation. And for example through the end of July, El Paso has already seen a little over 50% of its annual precipitation with two more months to go into the season.

July 2017 Weather Summary (cont'd)

With the arrival of our subtropical moisture you have undoubtedly noticed a marked increase in the our dew point temperatures, not just above the low 50s but many days well into the low to mid 60s this July which of course limits the effectiveness of evaporative coolers. This coincided with upper air measurements of the total precipitable water (TPW) in our atmosphere of 1.5 to 1.6 inches which were near record levels.

Many locations had rain for 15 to 20 days in July which, in addition to bringing most beneficial rainfall which led to drought amelioration provided cooler daytime temperatures giving relief from the prior heat at the beginning of the month.

With the onset of the monsoonal rains also came a couple of days with severe weather with 1 inch diameter hail reported both in the counties of el Paso and Dona Ana. A couple of severe weather wind events (wet microbursts) occurred 4 days apart on July 22 and 26. Although wet microbursts this time of year are not that rare, the fact that both hit KEPZ (Weather Service Forecast Office located in Santa Teresa, New Mexico is quite a coincidence. The event of 22 July had winds of 58 mph winds and left .99 inches of rain while the event of 27 July was a direct hit on KEPZ with a 73 mph wind gust and left 1.17 inches of rain. It is not very often the weather station gets to be the victim of the severe weather it forecasts and tracks...let alone twice in the same week.

And

July 2017 Weather Summary (cont'd)

And of course, as with every good monsoon season, we had our share of flash flooding events especially in the Clint, Socorro, Sparks, Horizon City and Canutillo areas of El Paso County. Sunspot and Alamogordo in Otero County along with Vado in Dona Ana County also saw their share of flash flooding to mention a few. ENSO conditions still remain neutral in the central and eastern Pacific ocean with a possible weak el Nino episode possible late summer into fall which could possibly mean more rainfall for the Borderland .

Organ Mtns July 9



I-18 Westbound View MP-11.

2017-07-10 MDT 16:22:02

**Blowing dust near Lordsburg
Jul 10**



Lightning July 11



Near El Paso July 12



I-10 Westbound View MP-11. 2017-07-12 MDT 18:35:02

**Blowing dust near Lordsburg
July 12**



I-10 Westbound View MP-11. 2017-07-13 MDT 16:22:02

**Haboob near Lordsburg
July 13**



Deming Haboob July 19



Deming Haboob July 19



Flooding near Socorro, TX July 15



Flooding near Sparks July 15



Flooding near Socorro, TX July 15



Flooding near Socorro, TX July 15



El Paso area July 20-21



Other Monsoon pictures around the neighborhood

**Cotton Field under water
Clint, Texas July 27**



N.E. El Paso 7/27



Santa Teresa 7/25



**Three points
determine a plane.**

Other Monsoon pictures around the neighborhood

Deming 7/21



Sparks (El Paso County) 7/28



Just SE of Sunspot NMex 7/30



Alamogordo 7/27



MONSOON SKIES OVER THE RIO GRANDE

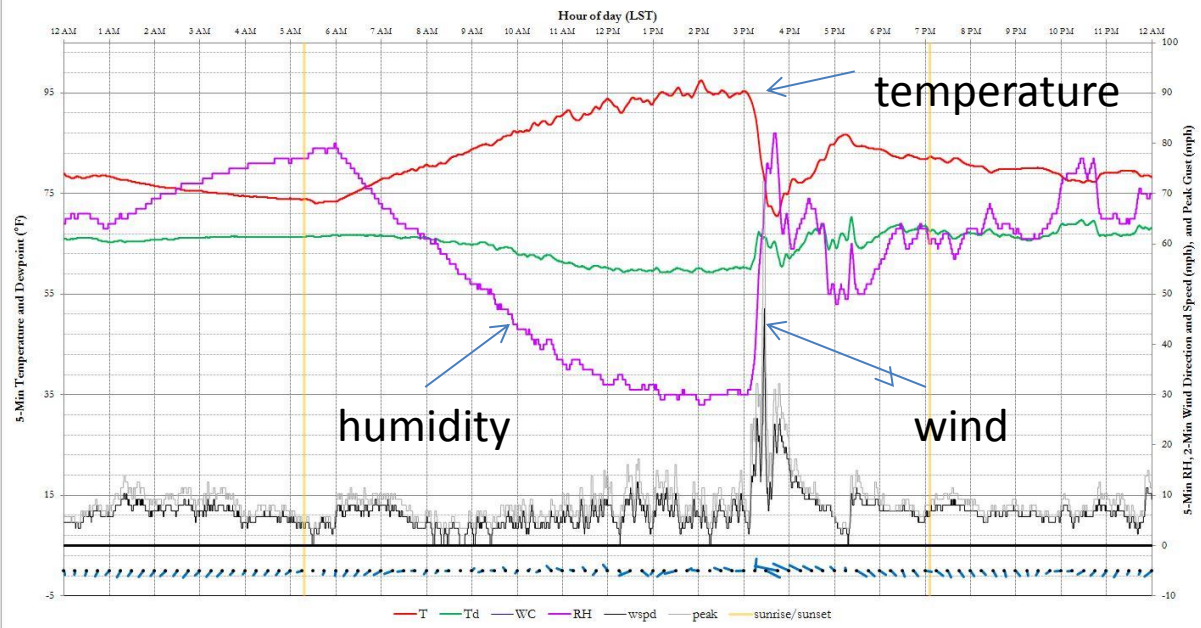


Other Monsoon pictures around the neighborhood

**Wet Microburst Directly Overhead hits Weather Forecast
Office KEPZ At Santa Teresa
At 4:00 P.M. on July 26, 2017
73 MPH Wind Gust with 1.17 inches of Rain.**

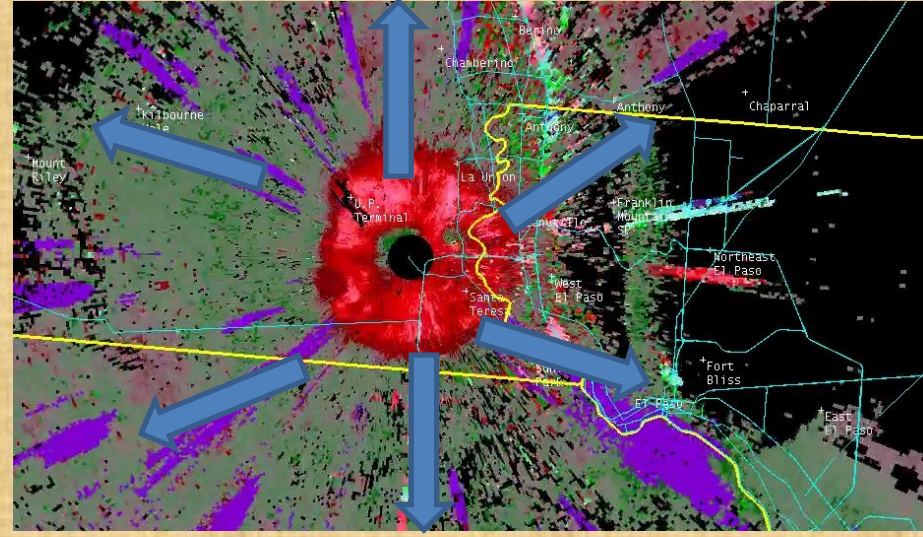
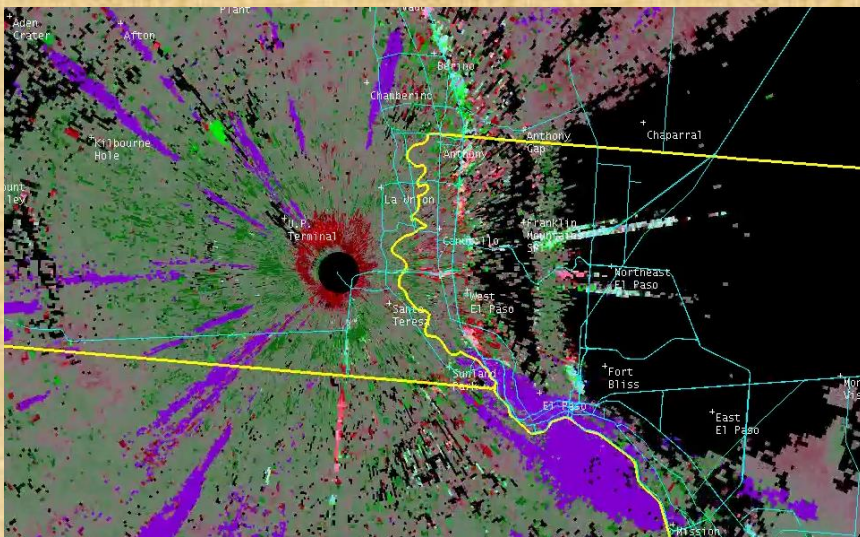


WFO Santa Teresa, NM RSOIS Data (7/26/2017)



Wet Microburst Directly Overhead hits Weather Forecast Office KEPZ At Santa Teresa At 4:00 P.M. on July 26, 2017 73 MPH Wind Gust with 1.17 inches of Rain

RADIAL WINDS ON DOPPLER RADAR



START OF EVENT.....73 MPH GUST IN PROGRESS

Other Monsoon pictures around the neighborhood

**Wet Microburst Directly Overhead hits Weather Forecast
Office KEPZ At Santa Teresa
At 4:00 P.M. on July 26, 2017
73 MPH Wind Gust with 1.17 inches of Rain.**



No Advisory in effect

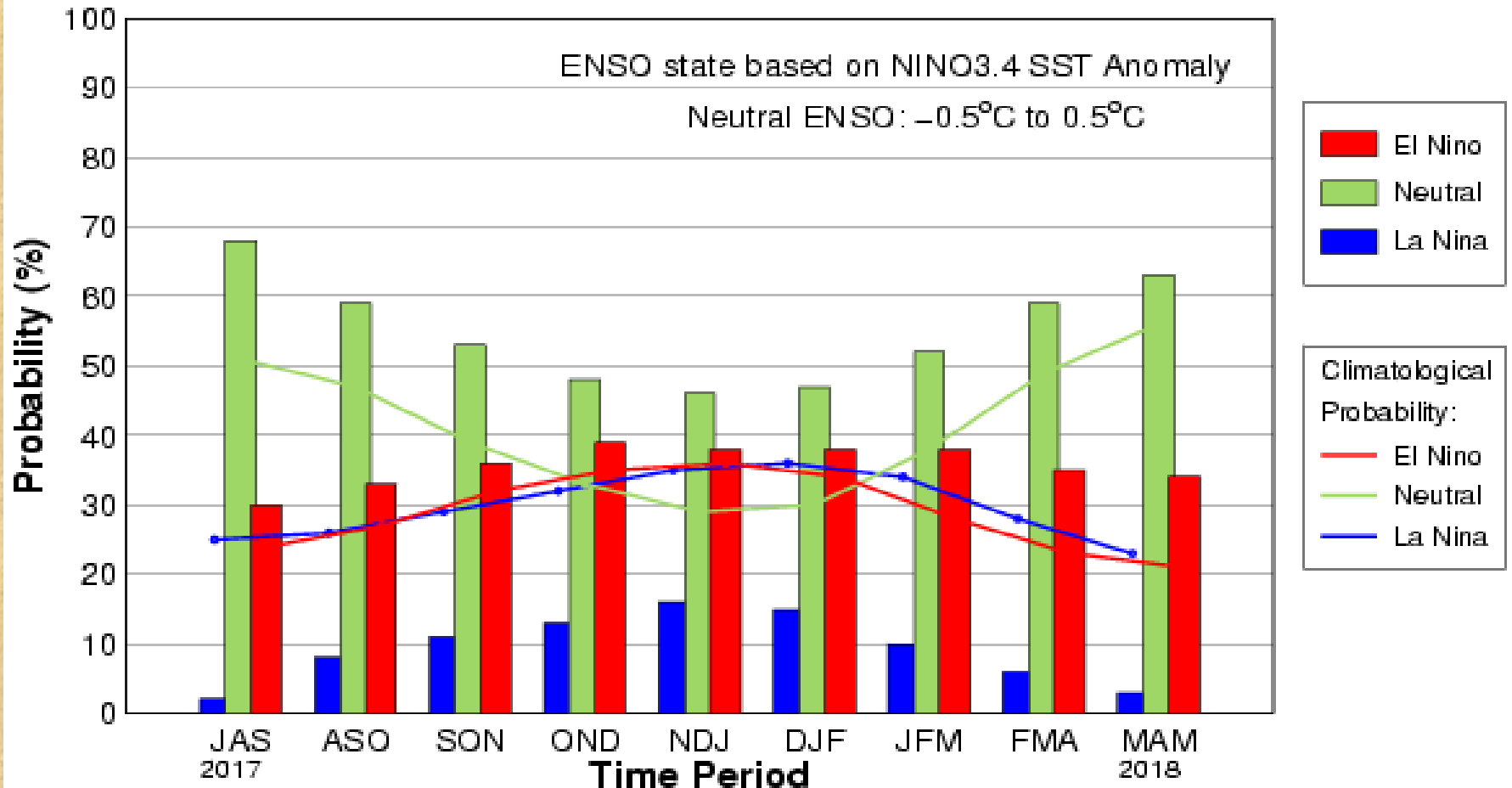
ENSO Alert System

- **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 from July into early Spring of 2018

ENSO IS NOW IN A **NEUTRAL** PERIOD. NO CLEAR SIGNAL FOR THE WINTER; LEANING TOWARD NEUTRAL BUT WEAK EL NIÑO ALSO POSSIBLE

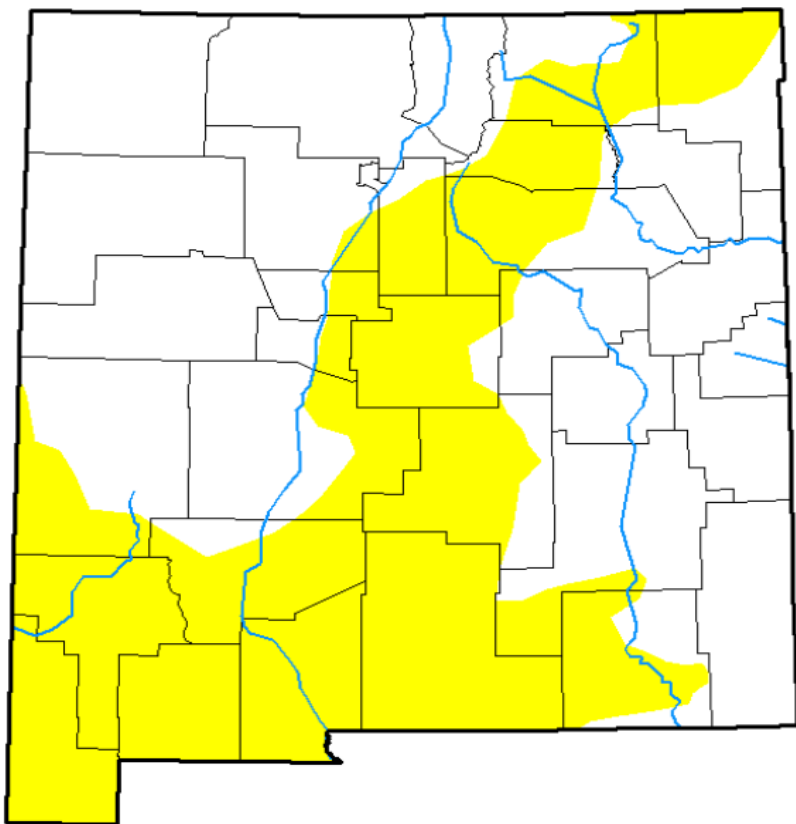
Mid-Jul IRI/CPC Model-Based Probabilistic ENSO Forecast



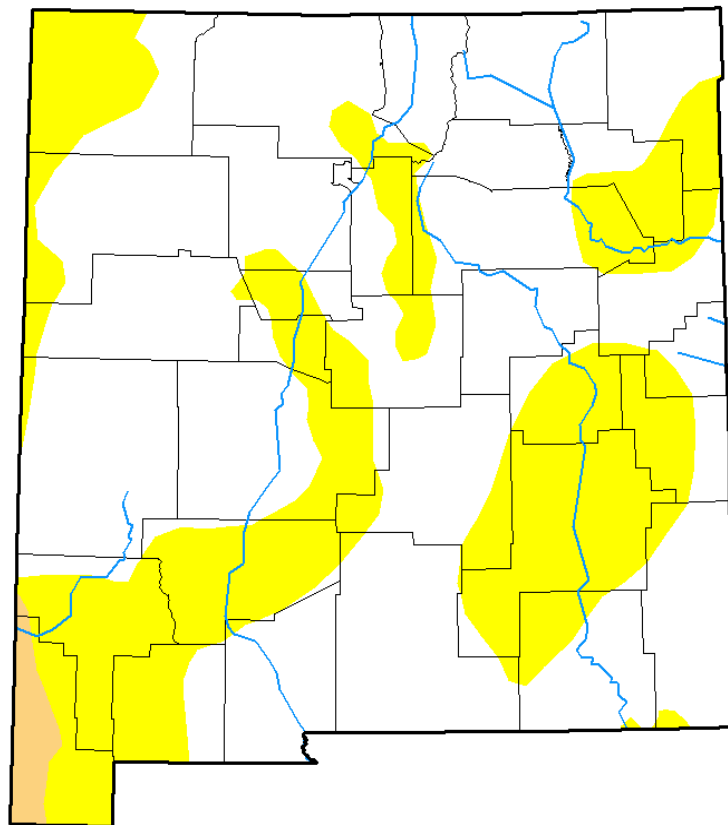
Current drought conditions for New Mexico and 3 month change

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

April 25, 2017








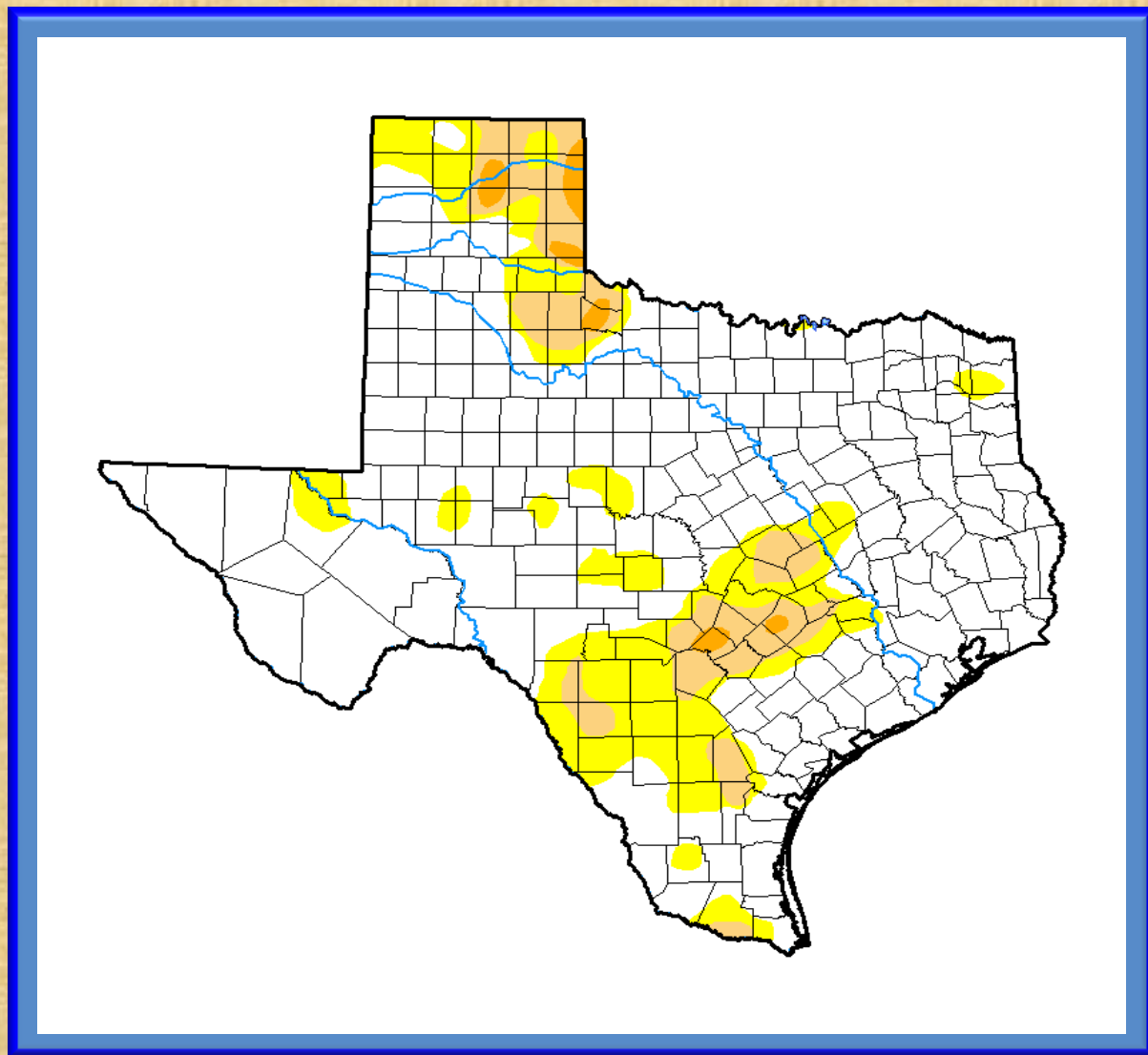
July 25, 2017



Current drought conditions for Texas as of June 27, 2017

Intensity:

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



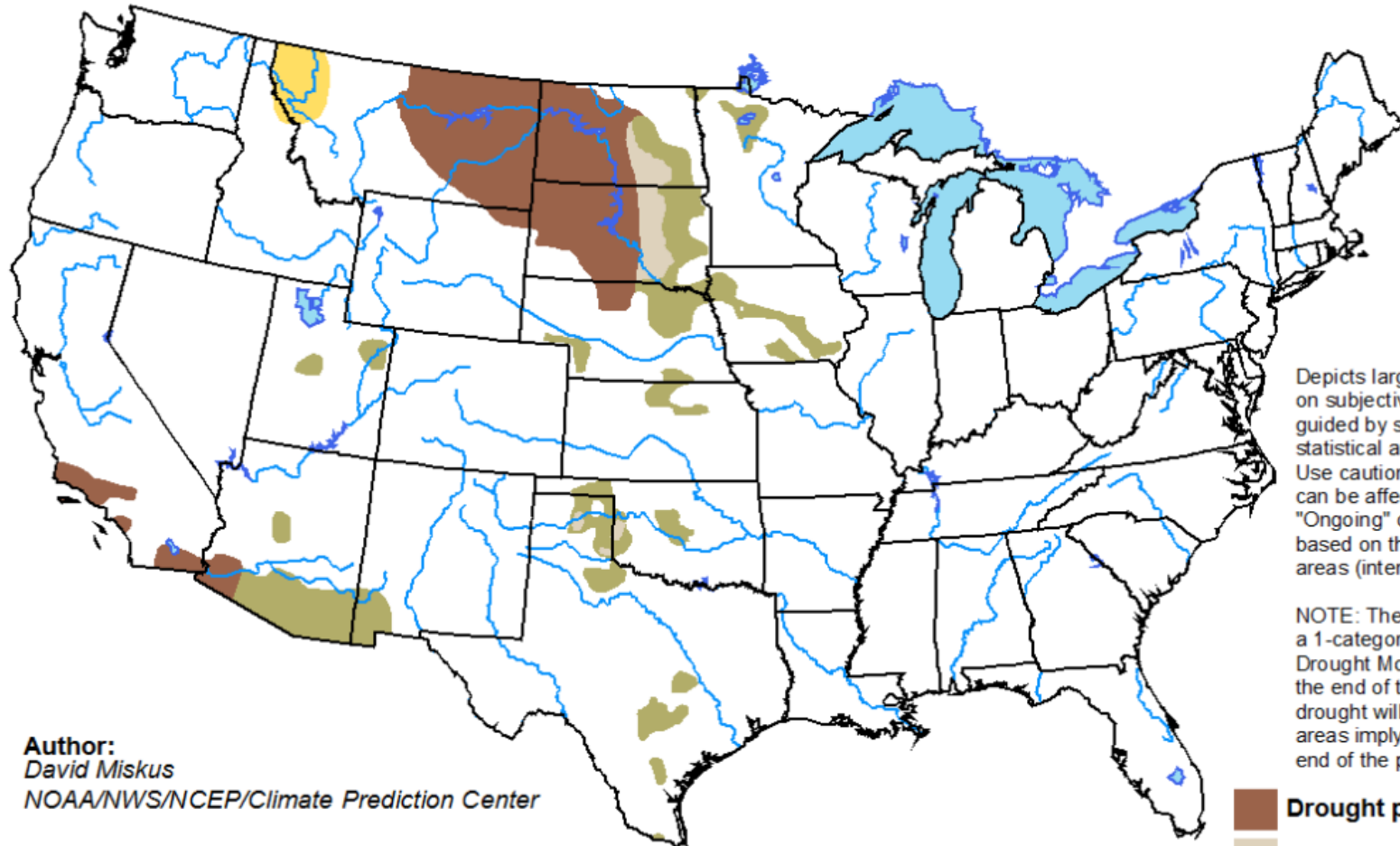
Build your own custom slider maps here at:

<http://droughtmonitor.unl.edu/MapsandData/ComparisonSlider.aspx>

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period





Valid for July 20 - October 31, 2017
Released July 20, 2017

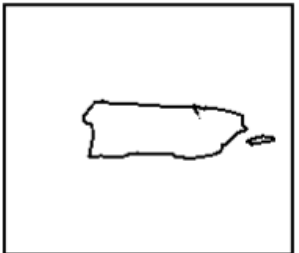
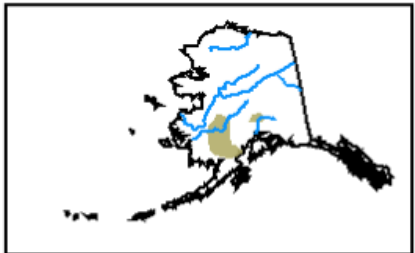


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to 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:
David Miskus
NOAA/NWS/NCEP/Climate Prediction Center

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

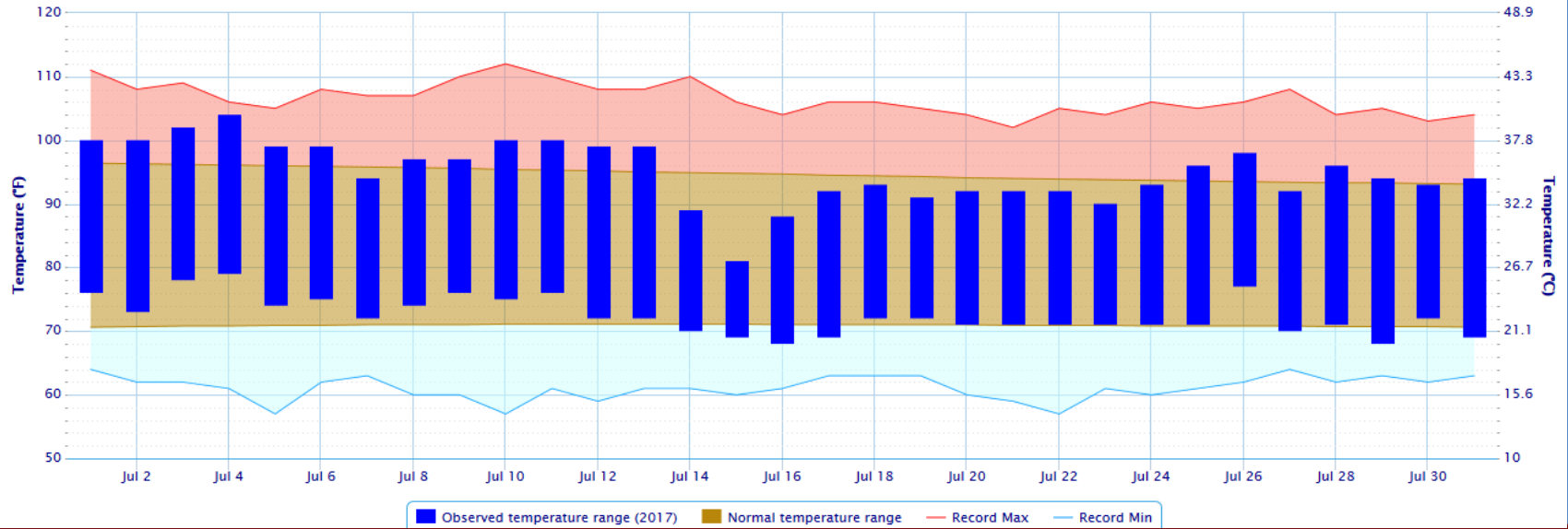


<http://go.usa.gov/3eZ73>

Temperature and precipitation data for July 2017 in El Paso

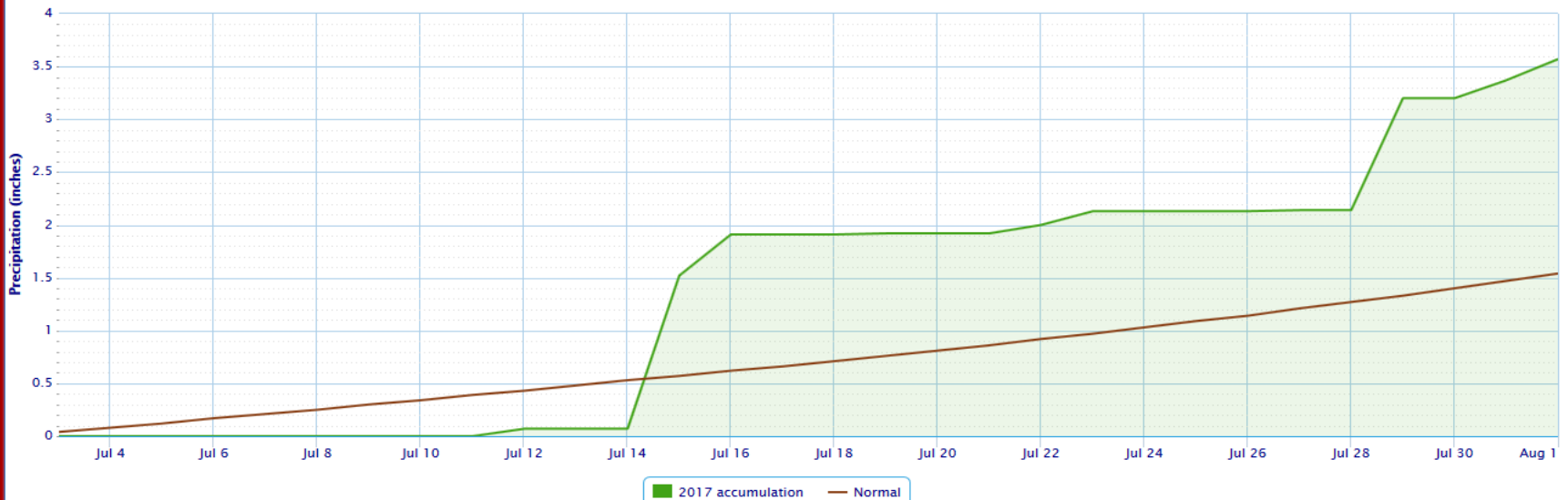
Daily Temperature Data – EL PASO INTL AP, TX

Period of Record – 1942-12-01 to 2017-08-01. Normals period: 1981-2010. Click and drag to zoom chart.



Accumulated Precipitation – El Paso Area, TX (ThreadEx)

Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



2017 year-to-date temperature and precipitation data El Paso

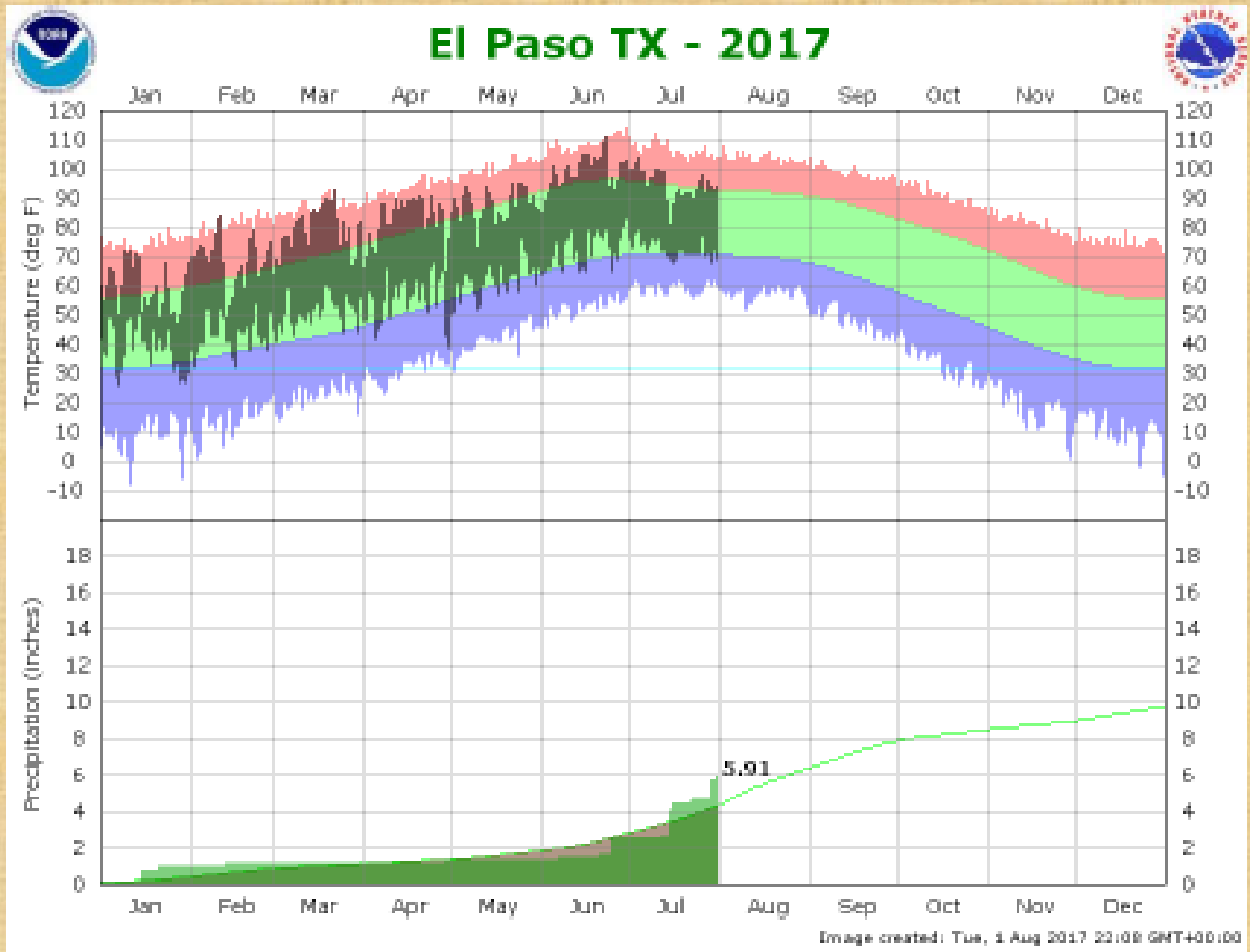
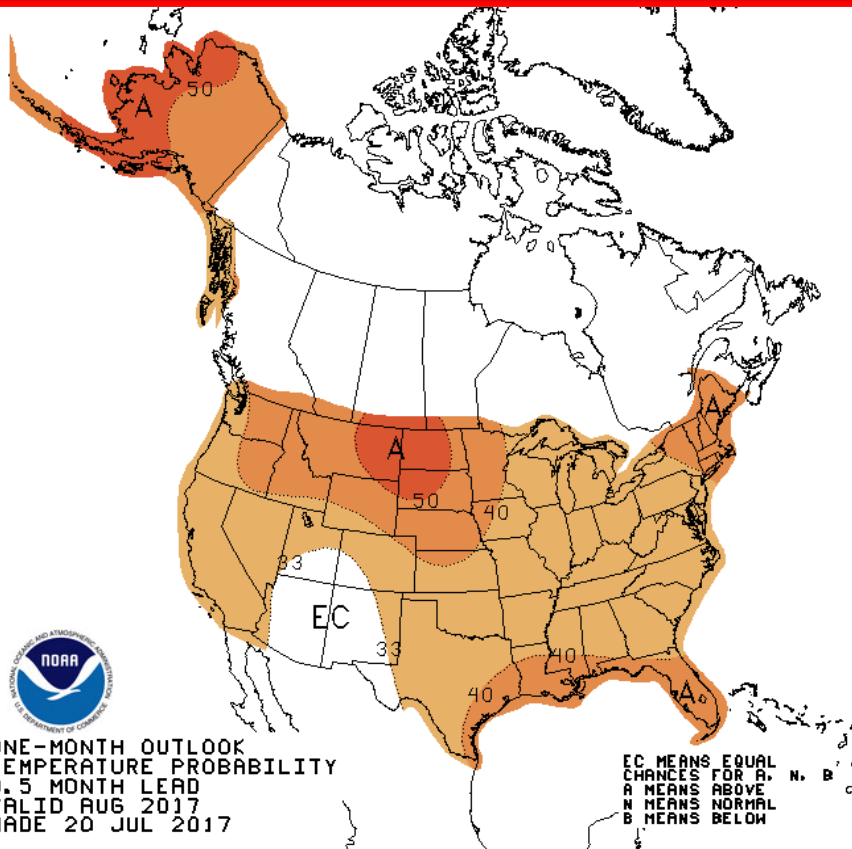


Image created: Tue, 1 Aug 2017 22:00 GMT+00:00

Temperature and precipitation outlook for August 2017

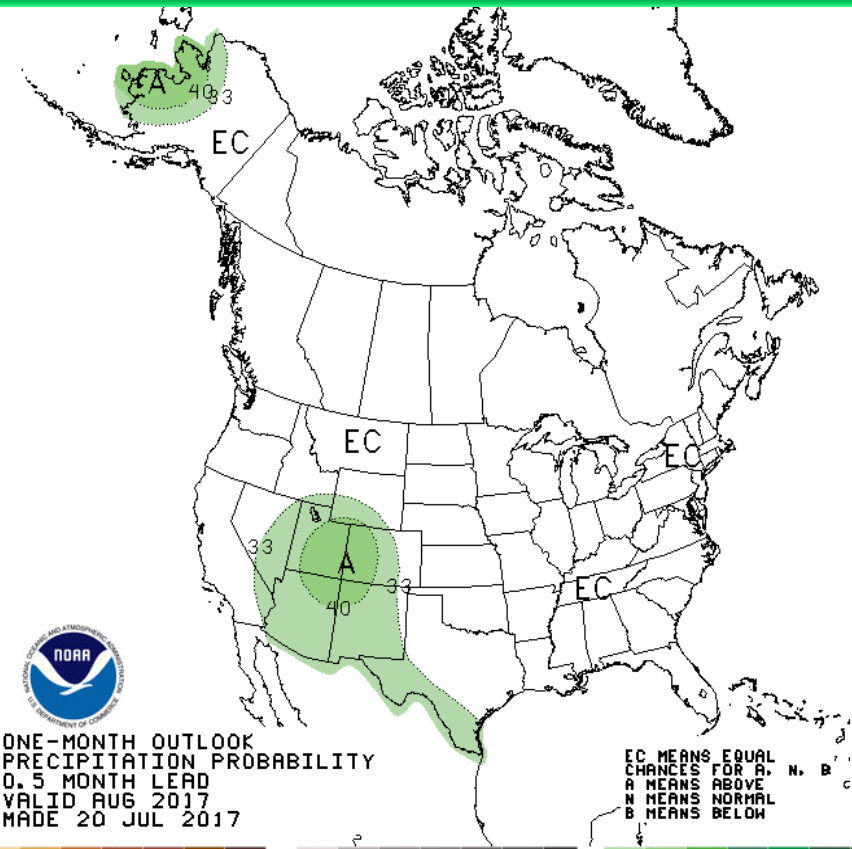
Temperature

Precipitation



ONE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.5 MONTH LEAD
VALID AUG 2017
MADE 20 JUL 2017

EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW



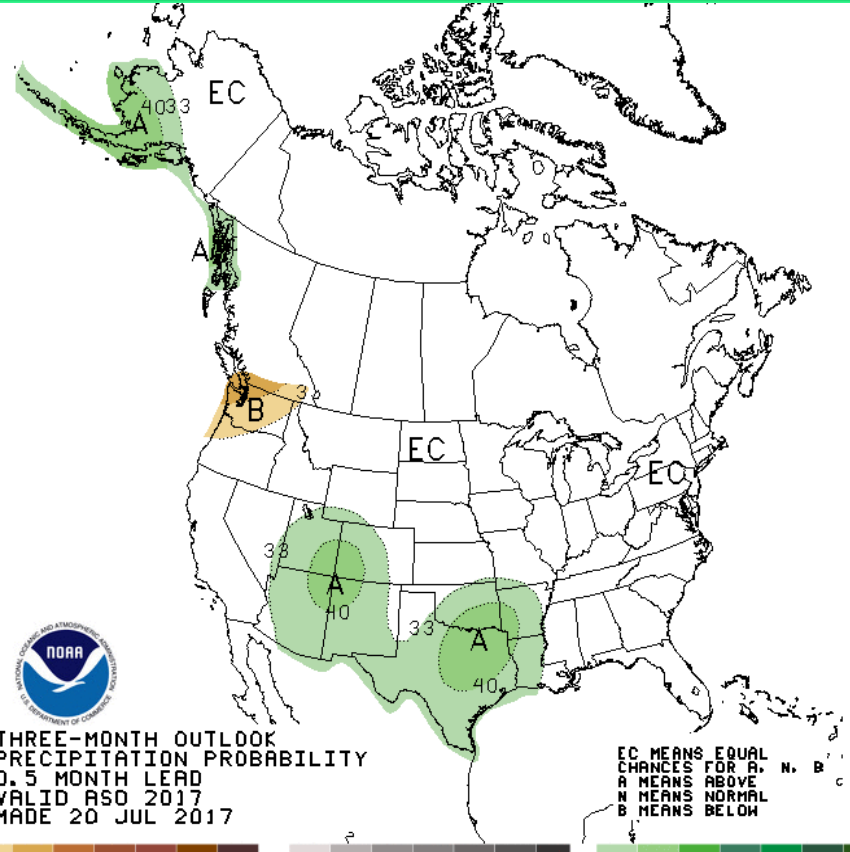
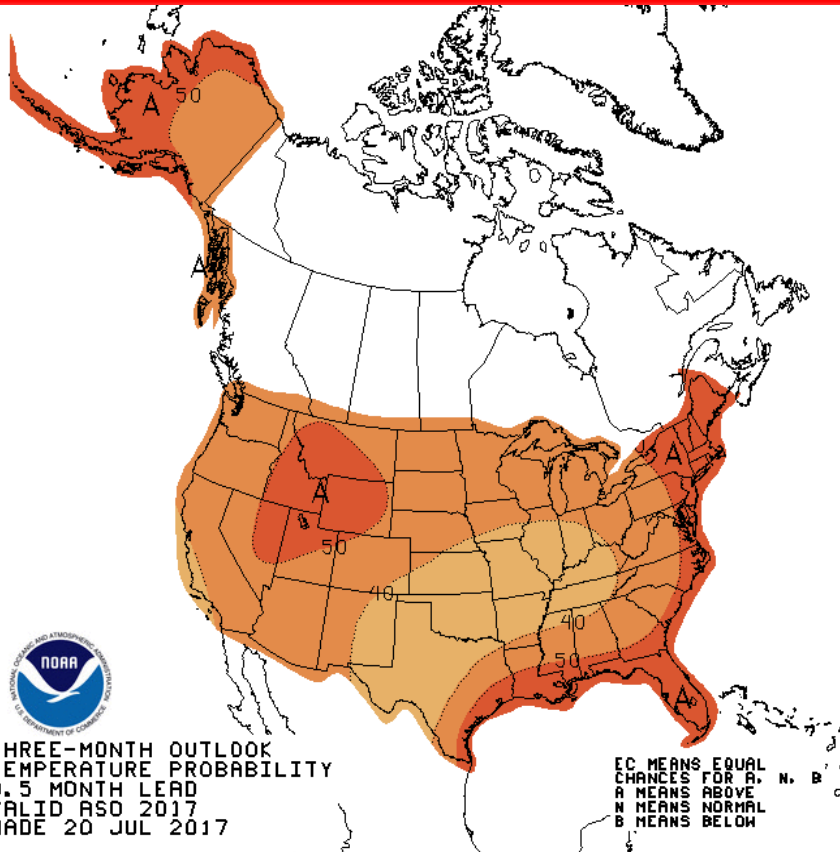
ONE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.5 MONTH LEAD
VALID AUG 2017
MADE 20 JUL 2017

EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

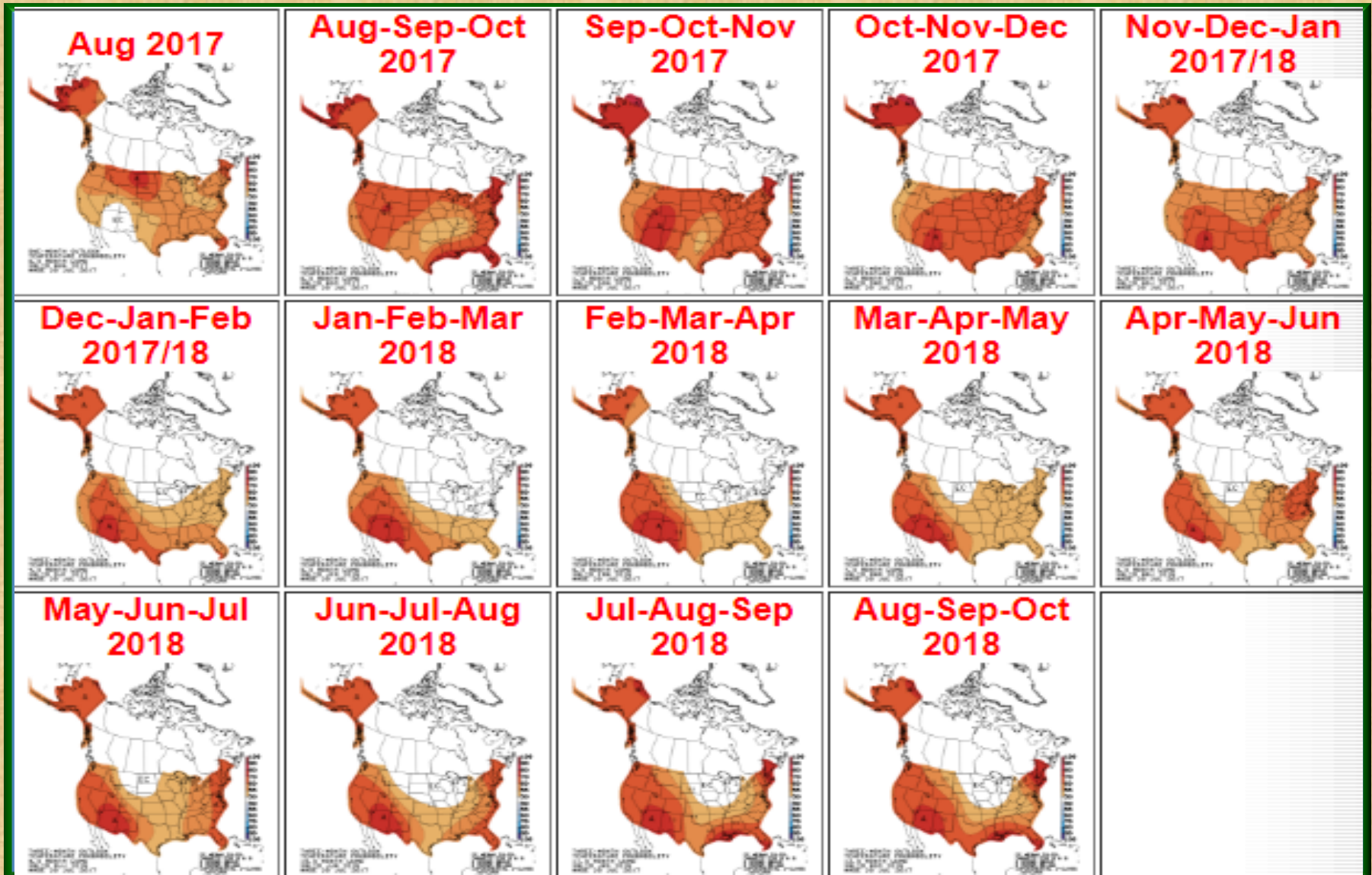
Temperature and precipitation outlook For August – October 2017

Temperature

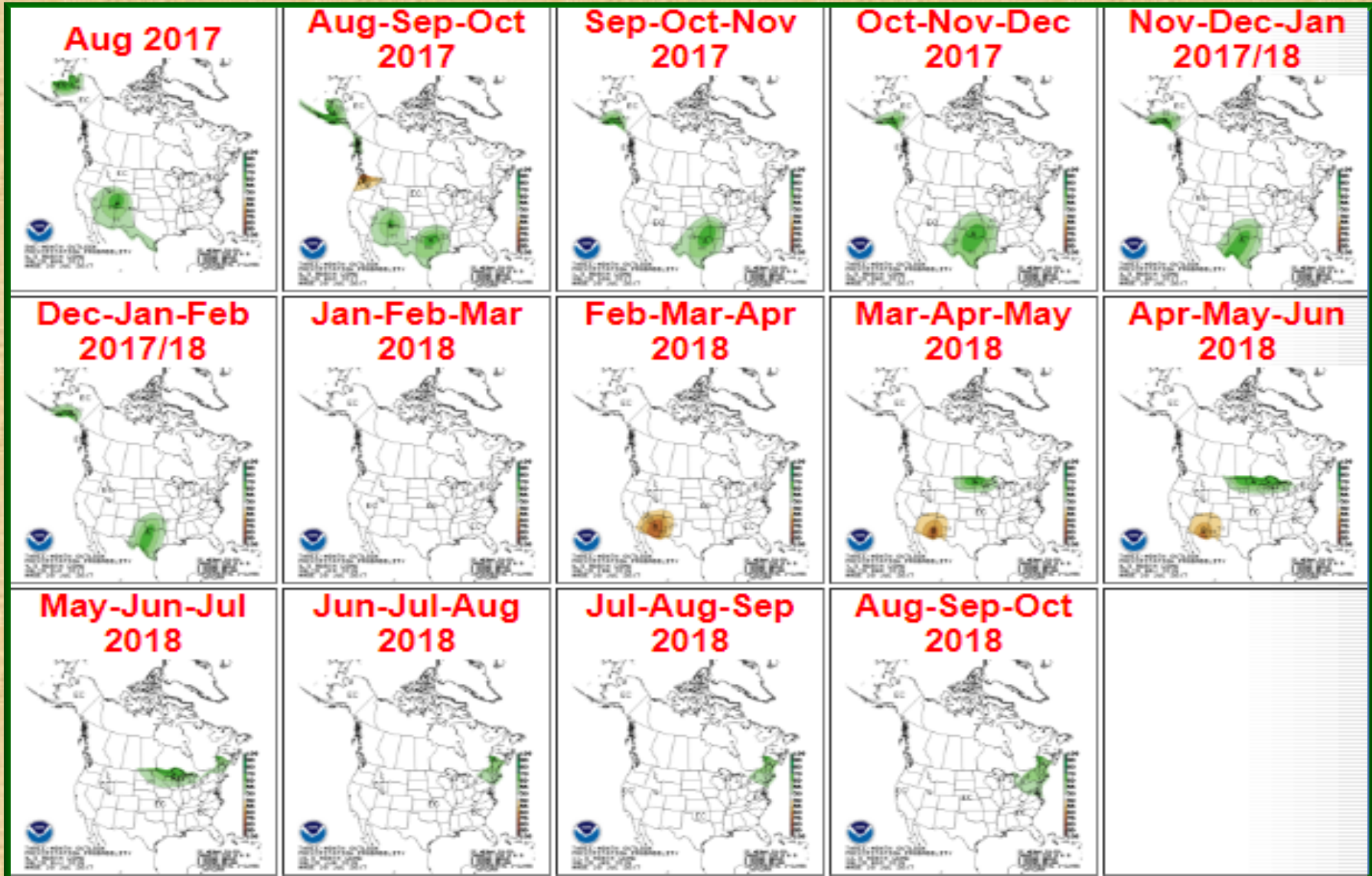
Precipitation



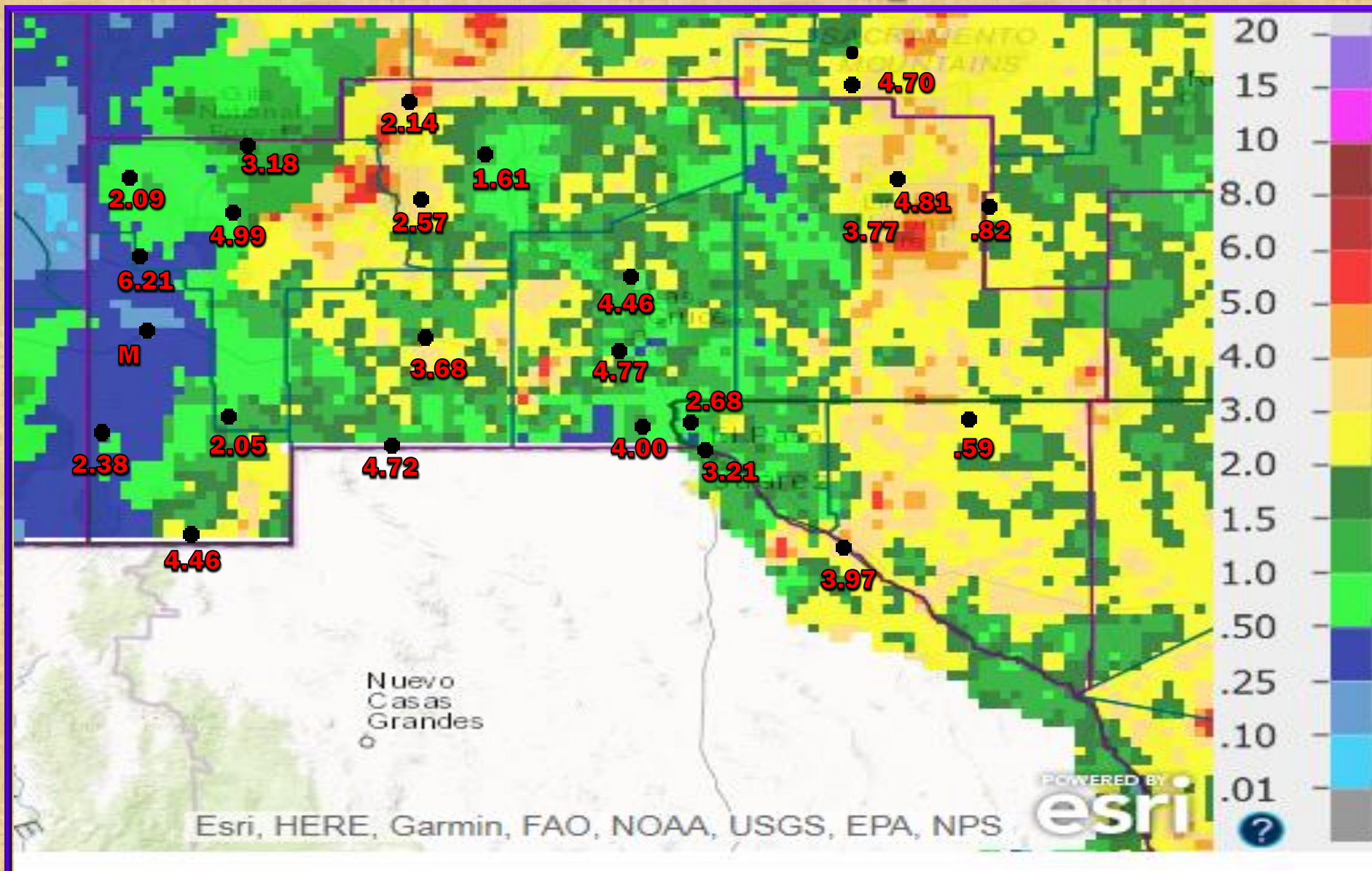
Temperature Outlook Through Oct 2018



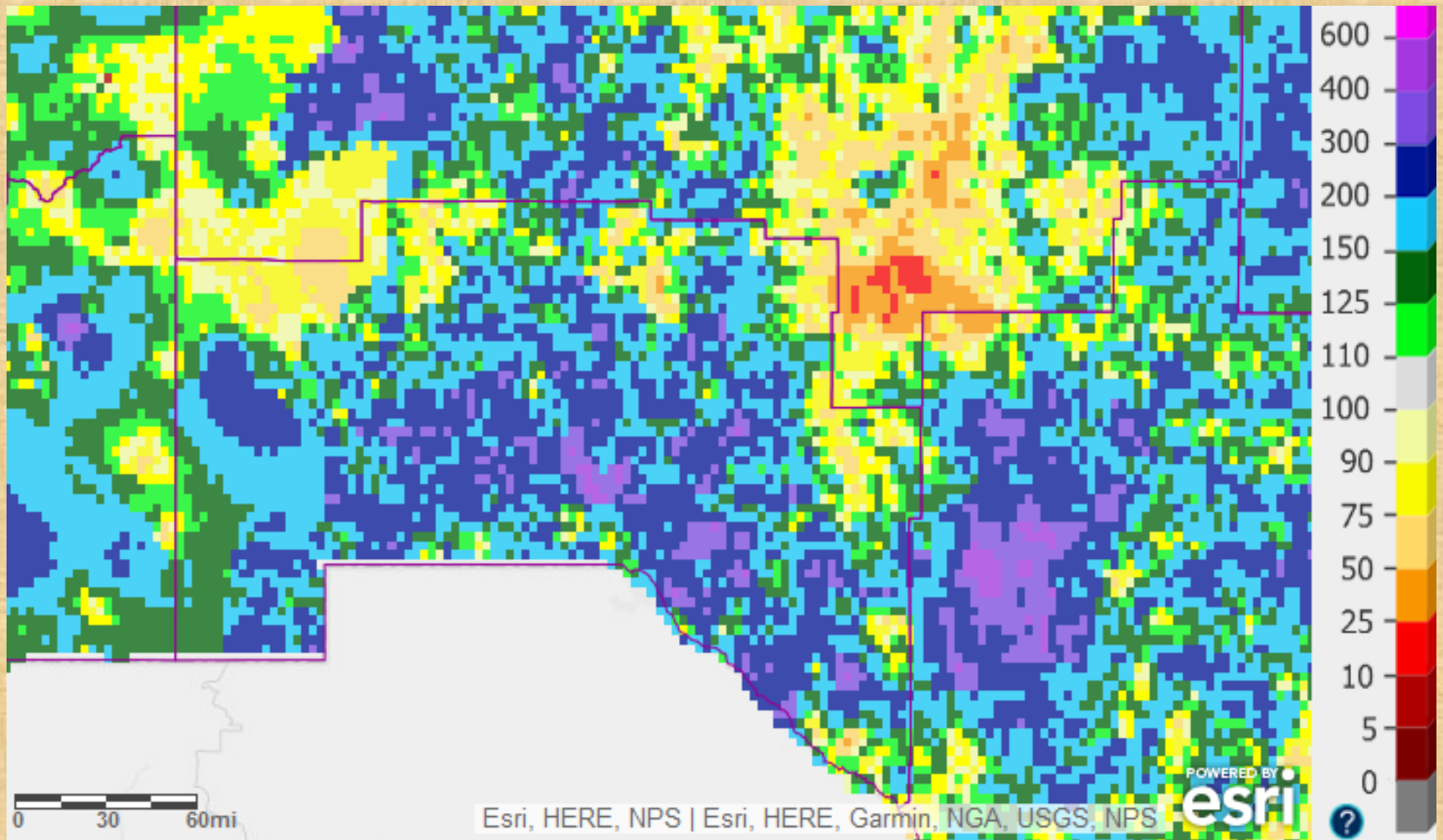
Precipitation Outlook Through Oct 2018



July 2017 radar rainfall estimate with surface rainfall reports



July 2017 radar rainfall estimate percent of normal



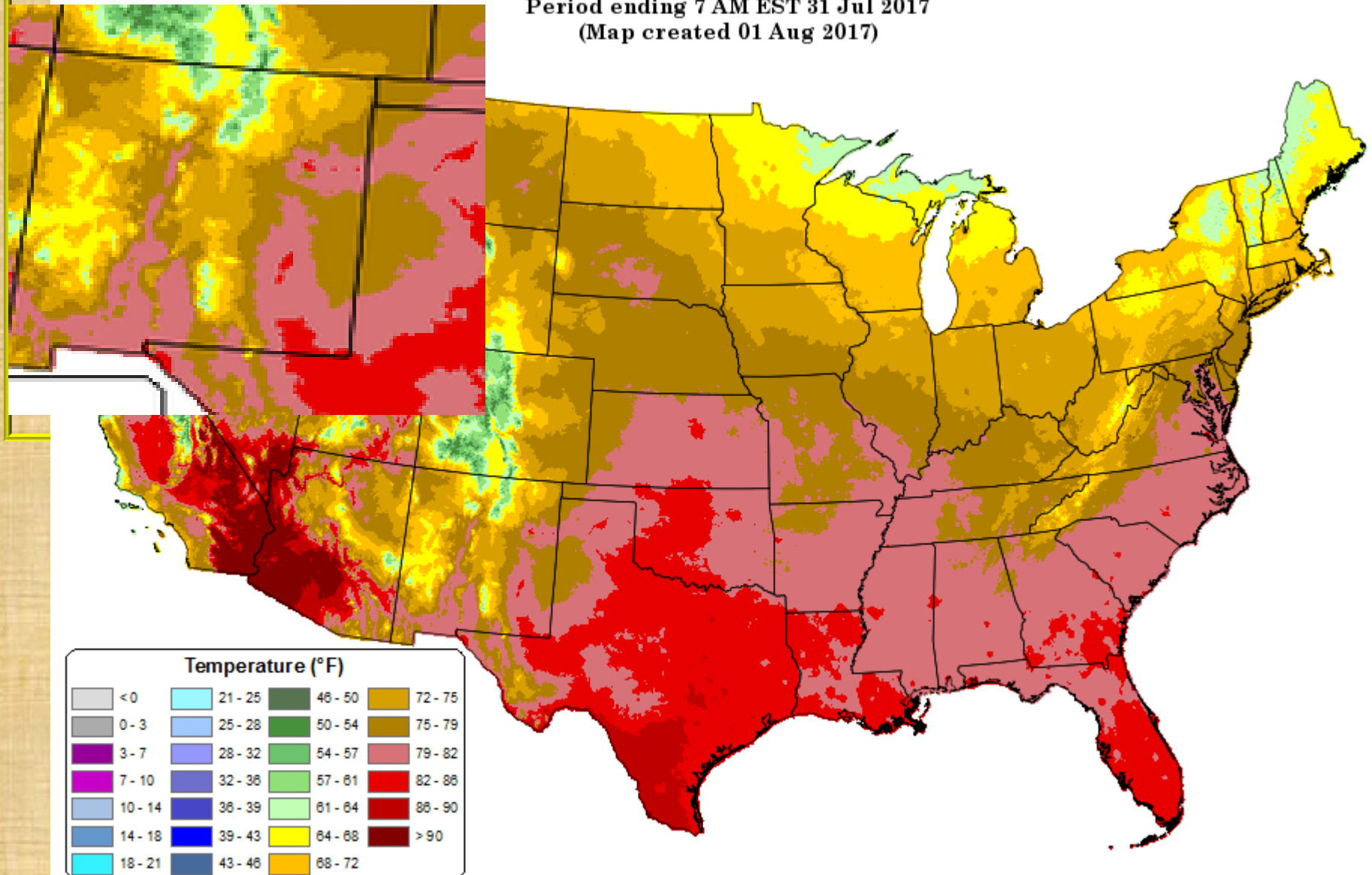
Average Daily Mean Temperature for

July 2017

Average Daily Mean Temperature: 01 July 2017 - 31 July 2017

Period ending 7 AM EST 31 Jul 2017

(Map created 01 Aug 2017)

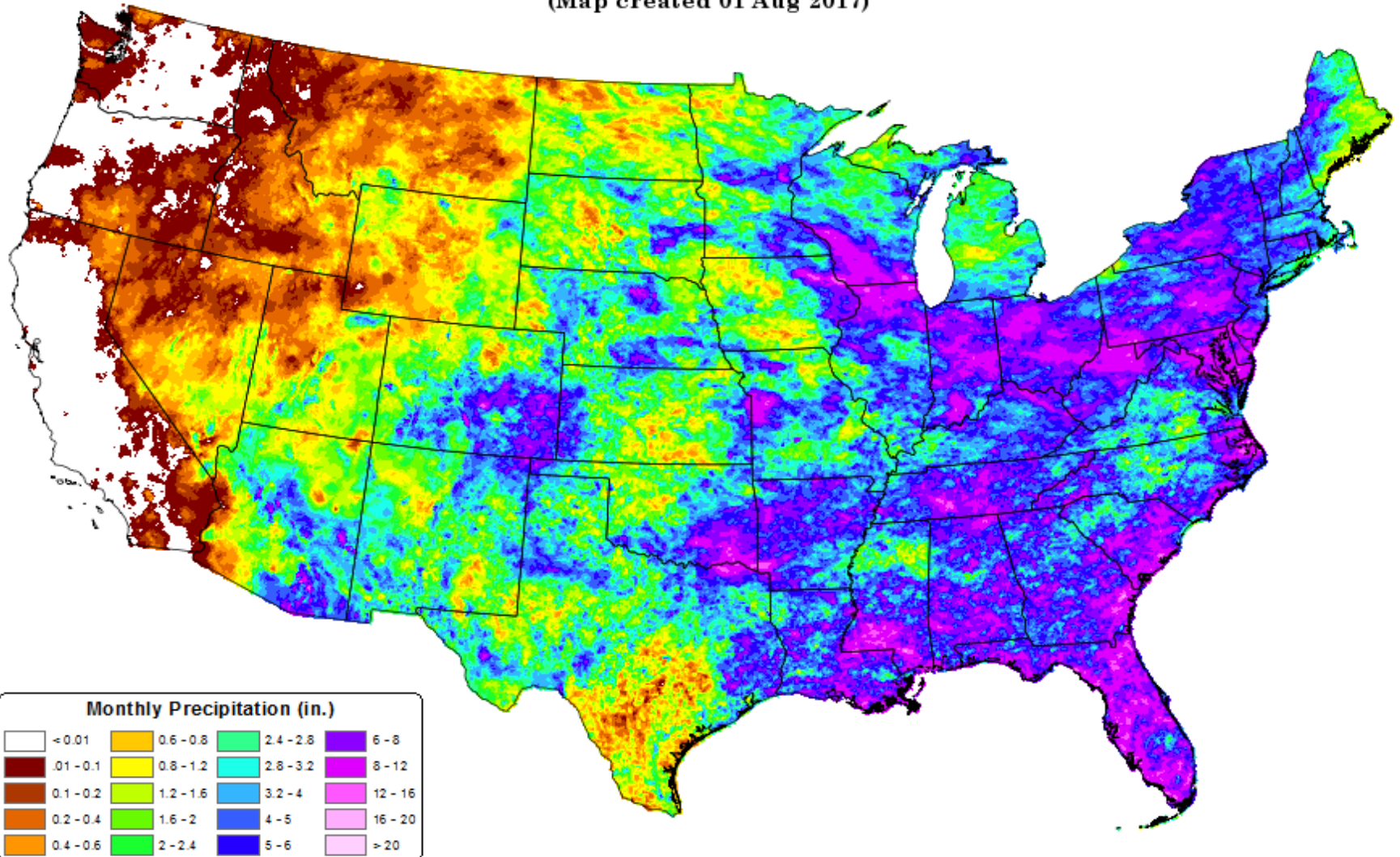


Total Precipitation for July 2017

Total Precipitation: 01 July 2017 - 31 July 2017

Period ending 7 AM EST 31 Jul 2017

(Map created 01 Aug 2017)



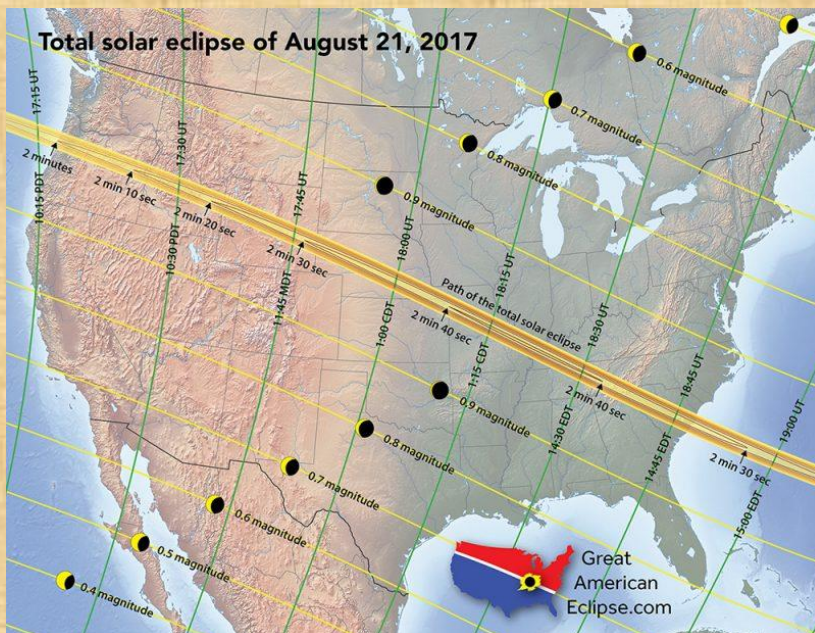
Selected weather reports July 2017

Date/Time	Location (County)	Event
7/26/2017 0443 PM	Santa Teresa NM KEPZ NWS WFO Site	73 MPH Thunderstorm Gust
7/27/2017 0201 PM	N.E. El Paso	1.00 inch diameter hail
7/26/2017 0713 PM	WSMR 2 SE Main Post Dona Ana NM	77 MPH Thunderstorm Gust
7/22/2017 0706 PM	NW El Paso	Flash Flooding
7/27/2017 0558 PM	Clint, El Paso County	Flash Flooding
7/27/2017 0155 PM	North Alamogordo Otero County NM	Flash Flooding
7/18/2017 0700 AM	3 NW Mesquite Dona Ana County NM	3.45 inches of rain
7/17/2017 0700 PM	La Luz Otero County NM	Flash Flooding
7/19/2017 0549 PM	18 SSW Deming Luna County NM	61 MPH Thunderstorm Gust
7/22/2017 0824 PM	Hatch Dona Ana County NM	Flash Flooding
7/22/2017 04430PM	Santa Teresa NM KEPZ NWS WFO Site	58 MPH Thunderstorm Gust

<http://www.weather.gov/epz/2017SolarEclipse>



<https://eclipse.gsfc.nasa.gov/eclipse.html>



60 – 70 % of Disk covered as seen
From El Paso around 1130 MDT – 1200 MDT
With general eclipse times from around
1000 MDT to 1400 MDT.
**NEVER LOOK DIRECTLY AT THE SUN. USE
ONLY SPECIAL FILTERED LENSES.**



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Photo Credit: John Fausett

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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City, ST

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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	

KEPZ WATCHING THE MONSOON SKIES OVER
FAR WEST TEXAS AND SOUTHERN NEW MEXICO
24/7

