

A dramatic, stormy sky with dark, heavy clouds and a bright lightning bolt striking down on the right side. The bottom of the image shows the dark silhouette of a city skyline against the horizon.

# JULY 2015

## Weather Digest

**Weather Summary**

**July In Pictures**

**Special Features**

**Temperature &  
Precipitation**

**Severe Weather**

# July 2015 Weather Summary

June ended with the monsoon pattern just beginning to set up. Then in July the monsoon season escalated and sustained itself through the entire month. Southerly flow aloft begin setting up early and by around the 10<sup>th</sup>, it became very moist over the area. The pattern was set up by a semi-permanent trough of low pressure off the west coast of the US, and a high pressure center that persisted over central and east Texas (See diagram “Meteorological Lesson”). These two features combined to bring tropical moisture northward over the area, and the pattern did not begin changing until just before the end of the month. The result: a very productive month of rainfall across the entire area. Much of the Rio Grande Valley over to the Continental Divide saw well above normal rainfall. Even the “dry” areas of the upper Tularosa Basin and out near the Arizona border still tallied rainfall just below normal.

During the monsoon season the main weather threat is flooding, and this July was no different. Flooding occurred much of the month, but fortunately, so far, no one has died with the flooding. Though severe weather is not common during the monsoon season, there always seems to be a couple of days with a severe weather outbreak. On July 10<sup>th</sup>, a series of strong to severe storms swept east southern Dona Aña County and west El Paso. The Santa Teresa weather office received three-quarter inch hail and a 68 mph wind gust. This system then hit west El Paso with strong winds and hail up to 1 inch. Only minor damage to some cars was reported.

# July 2015 Weather Summary (continued)

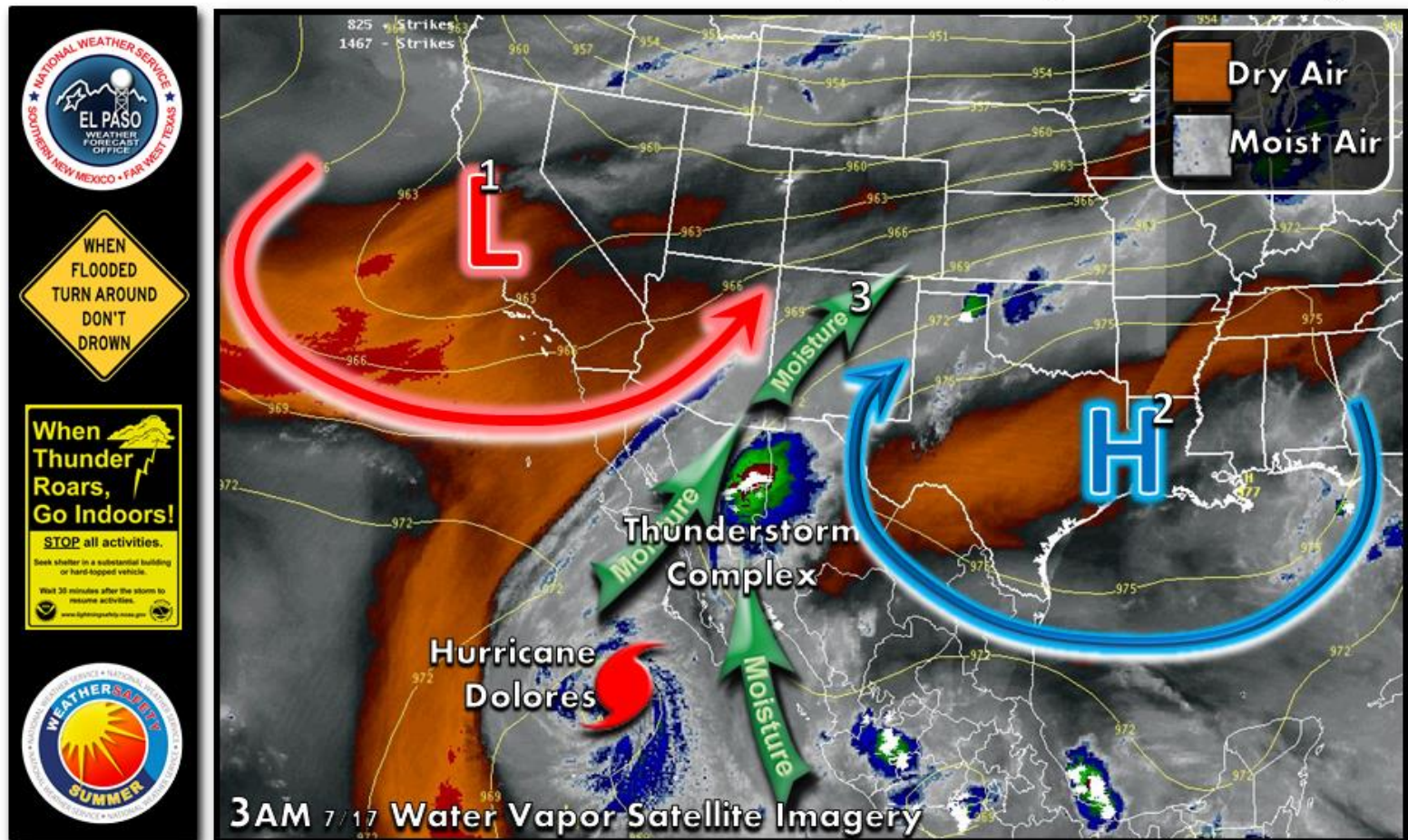
Temperatures were near normal on the whole, despite the cloudy, rainy weather. The cloudy weather tends to eliminate most extreme heat and that was the case this month. Triple digit heat was fairly uncommon during the month and then only slightly above 100 degrees when it did occur.

Looking ahead, all signs point to a continued rather strong El Niño into the fall. For August, it looks like continuing rainy weather with near or slightly below normal temperatures.

# Meteorological Lesson

## MET101: How we get Monsoon Moisture

It's all about persistent pressure systems (Highs & Lows) and the circulation around them. Low pressure<sup>1</sup> west, with counter-clockwise flow, and High pressure<sup>2</sup> east, with clockwise flow, create a channel which funnels a concentrated sub-tropical moisture plume<sup>3</sup> over the region.



# Cloudcroft

© CloudcroftWebcam.com Sat Jul 04, 2015 04:31:08 PM

## July 4



## July 6



**July 7 – West of Sierra Blanca,  
Texas, Hudspeth Co.**



# El Paso July 10: Severe storms and flash flooding



**Northeast El Paso**



**West El Paso**

# **Chloride Creek near Winston, New Mexico July 9**





# July 29

## 925 PM WED: Widespread Heavy Rain

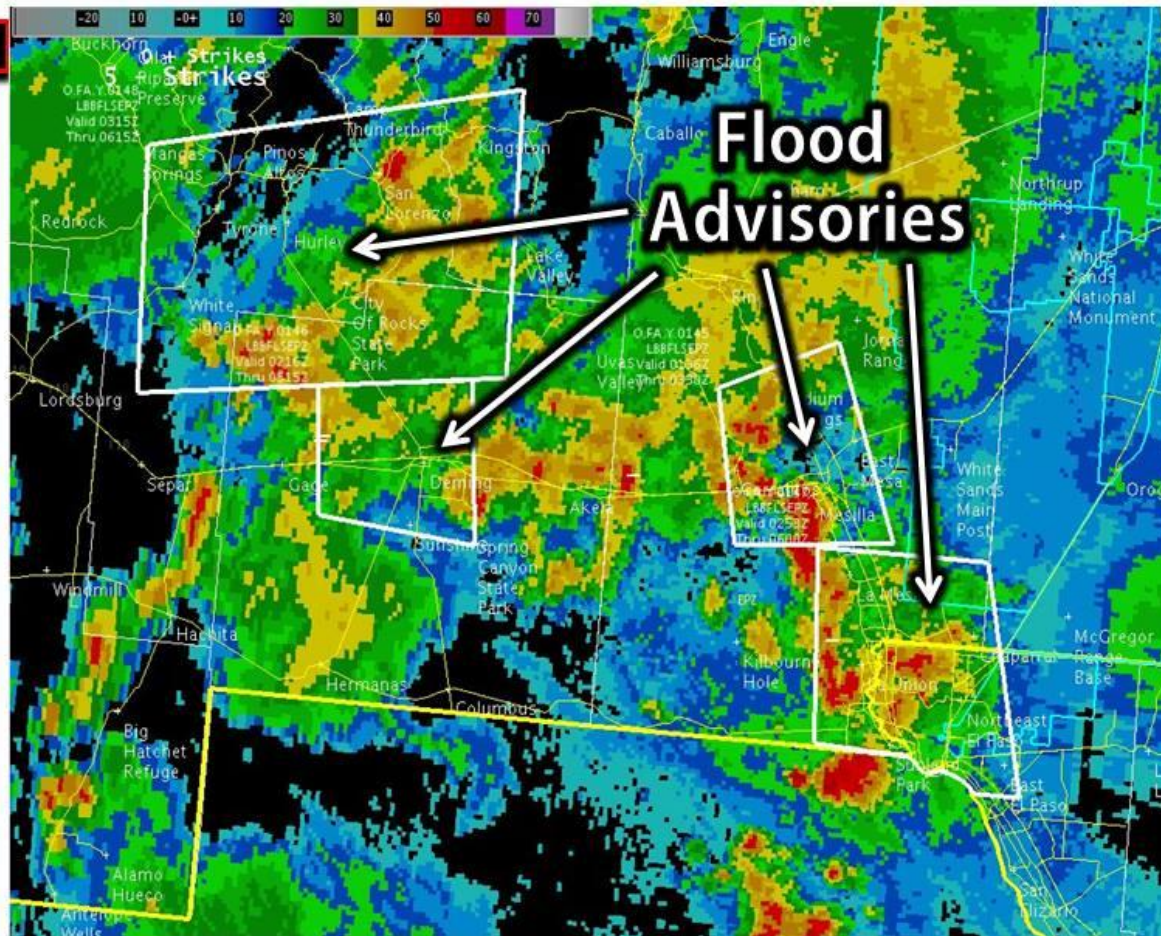
### Primary Threats

Frequent  
Lightning

Heavy Rain

Flash  
Flooding

Rainfall of  
1-2 inches  
will cause  
street,  
arroyo,  
low-lying  
flooding

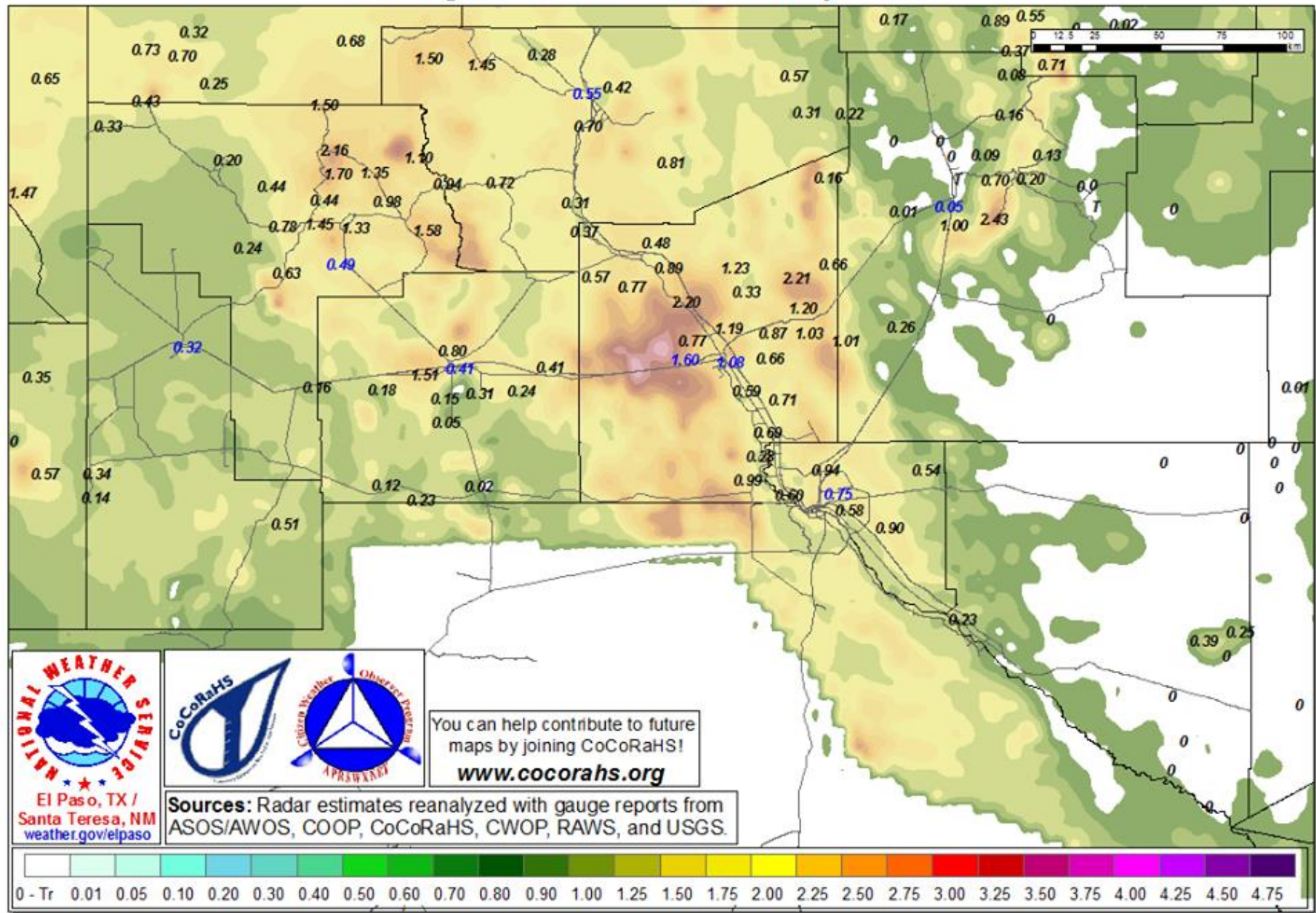


**Diana Street Northeast El Paso  
July 30**



# 24-Hour Accumulated Precipitation

## Ending around 8 AM 30 July 2015



El Paso, TX /  
Santa Teresa, NM  
weather.gov/el Paso



You can help contribute to future maps by joining CoCoRaHS!

[www.cocorahs.org](http://www.cocorahs.org)

**Sources:** Radar estimates reanalyzed with gauge reports from ASOS/AWOS, COOP, CoCoRaHS, CWOP, RAWS, and USGS.

# A good month for lightning



# ...and rainbows





## Blue Moon on the month of July

**A Blue Moon is the second of two full moons occurring in the same month.**

The first full moon occurred on July 2 at 10:20 AM and the second full moon this month will occur tonight, July 31 at 6:43 PM. Thus the full moon on July 31 is called a Blue Moon.

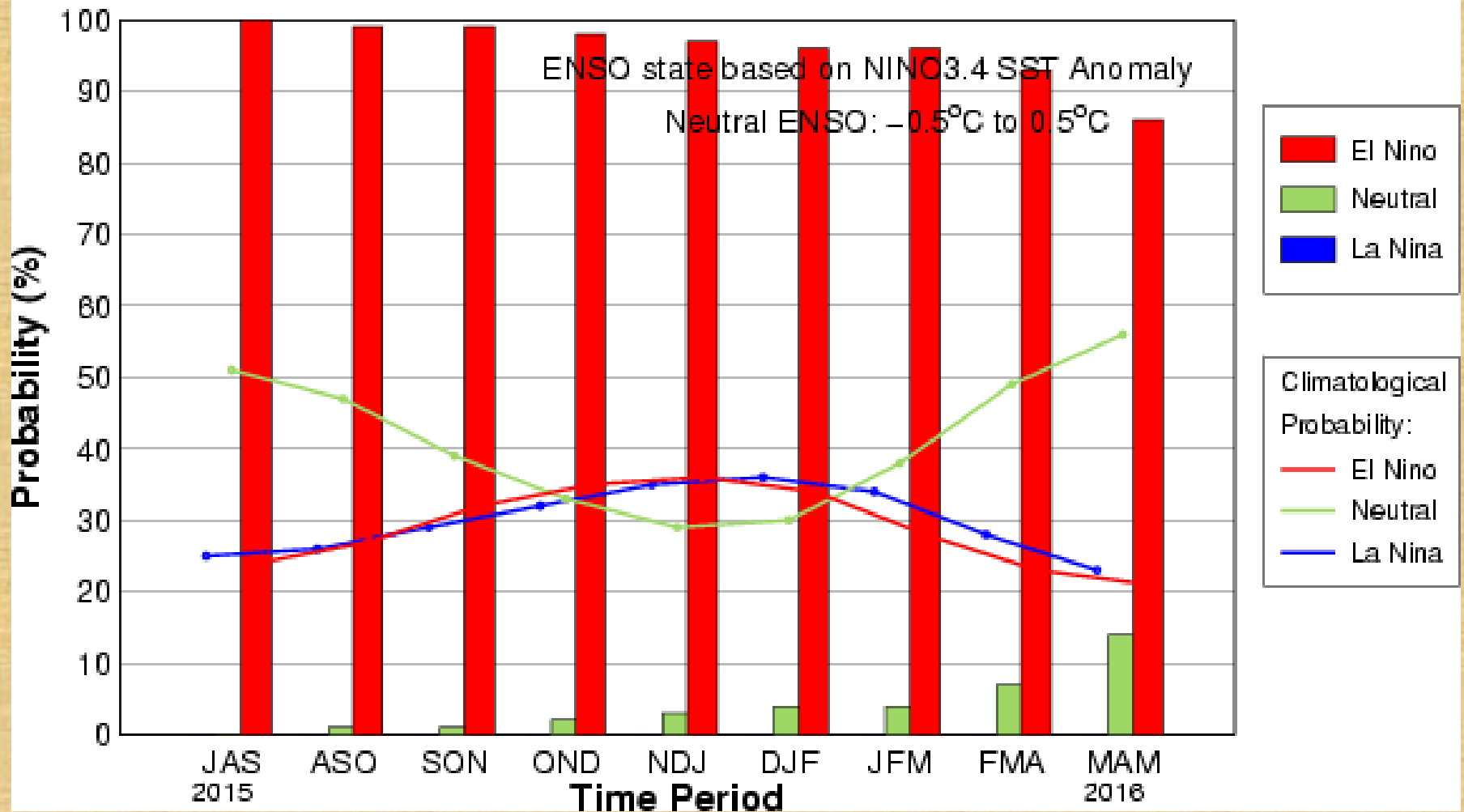
The phrase has nothing to do with the actual color of the moon, although a literal "blue moon" (the moon appearing with a tinge of blue) may occur in certain atmospheric conditions; e.g., when there are volcanic eruptions or when exceptionally large fires leave particles in the atmosphere.

Image credit: PAGASA Astronomical Observatory

© 2015

# ENSO Forecast from Mid July

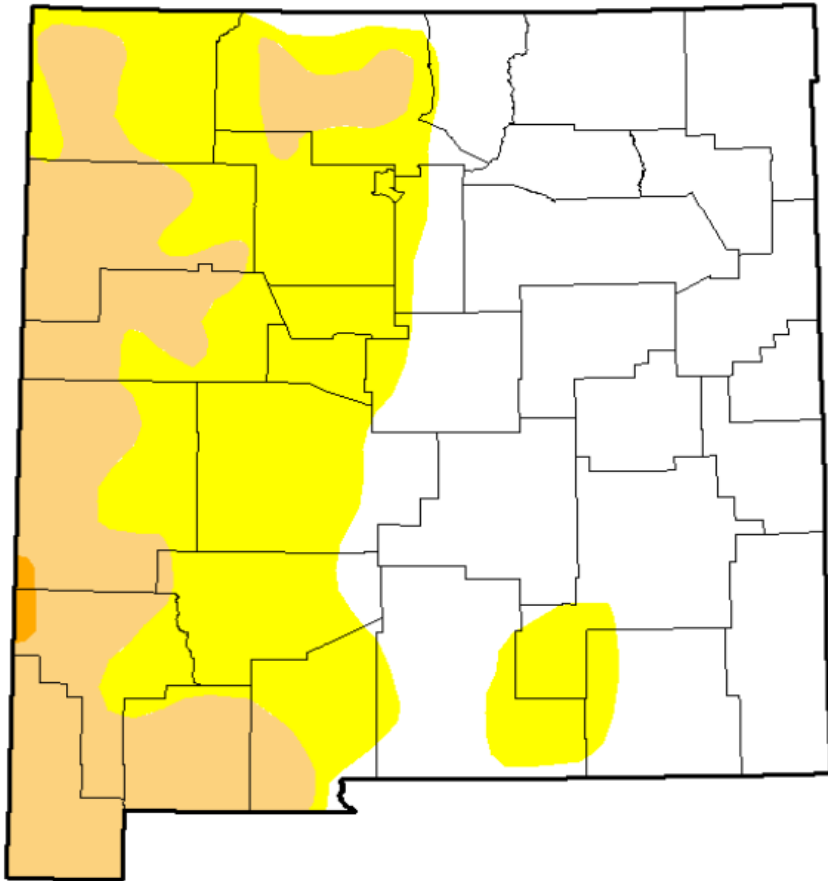
Mid-Jul IRI/CPC Plume-Based Probabilistic ENSO Forecast



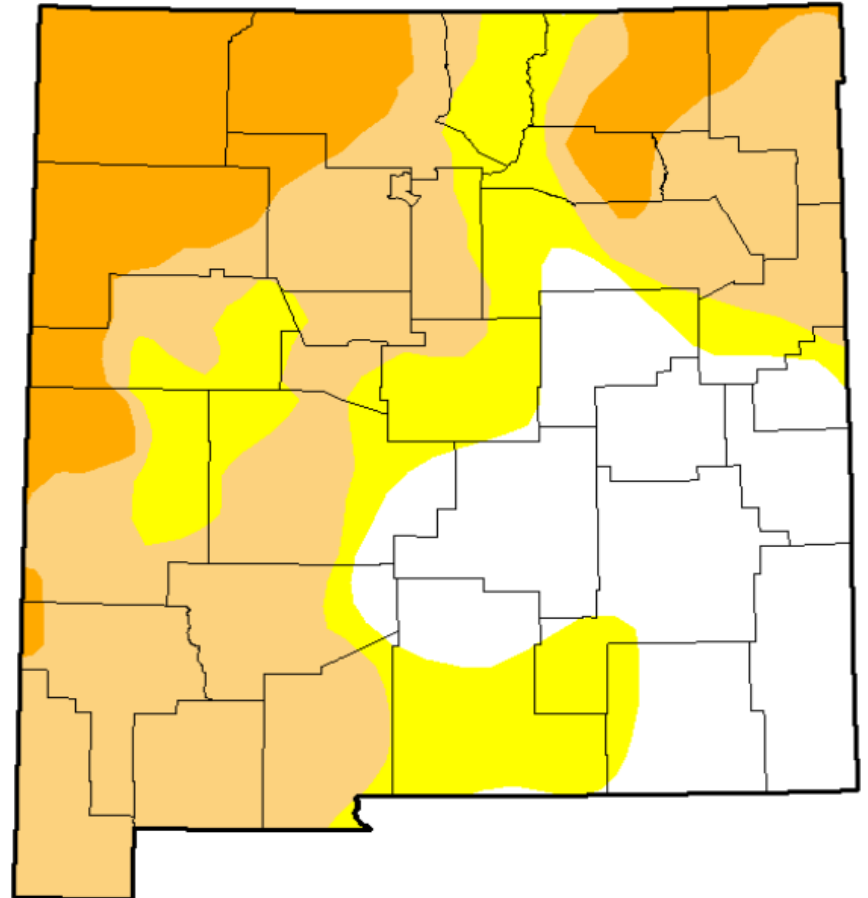
# Current drought conditions for New Mexico and 3 month change

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

**July 21, 2015**








**April 28, 2015**

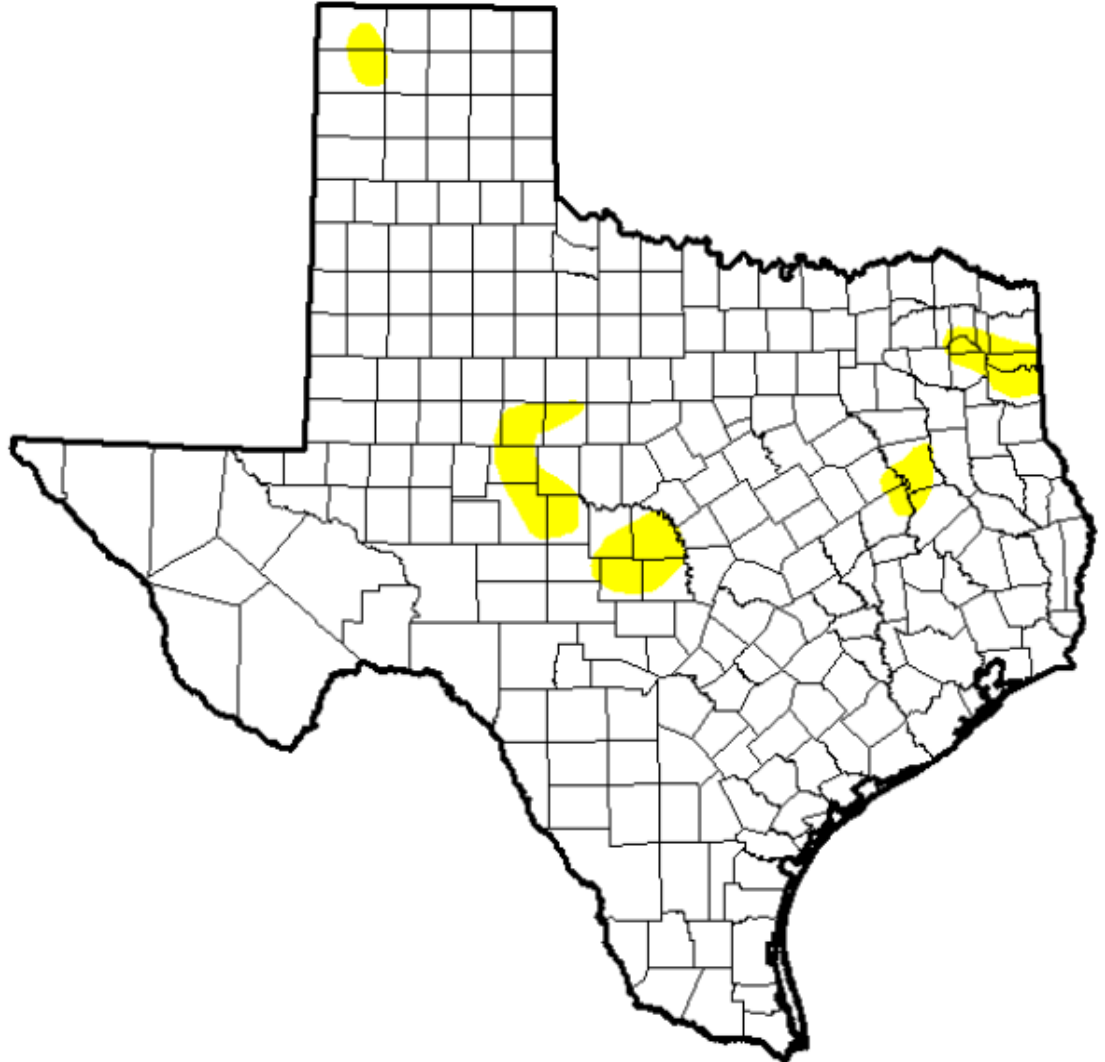




# Current drought conditions for Texas as of July 21, 2015

Intensity:

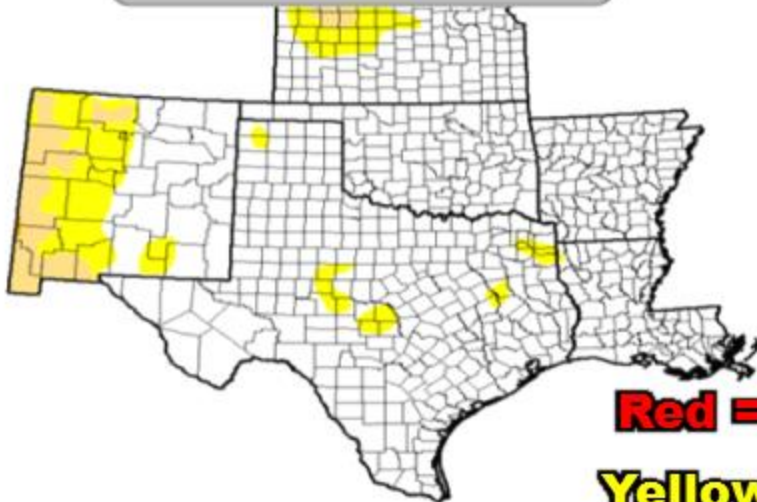
-  D0 - Abnormally Dry
-  D1 - Moderate Drought
-  D2 - Severe Drought
-  D3 - Extreme Drought
-  D4 - Exceptional Drought



**Build your own custom slider maps here at:**

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

# JULY 2015

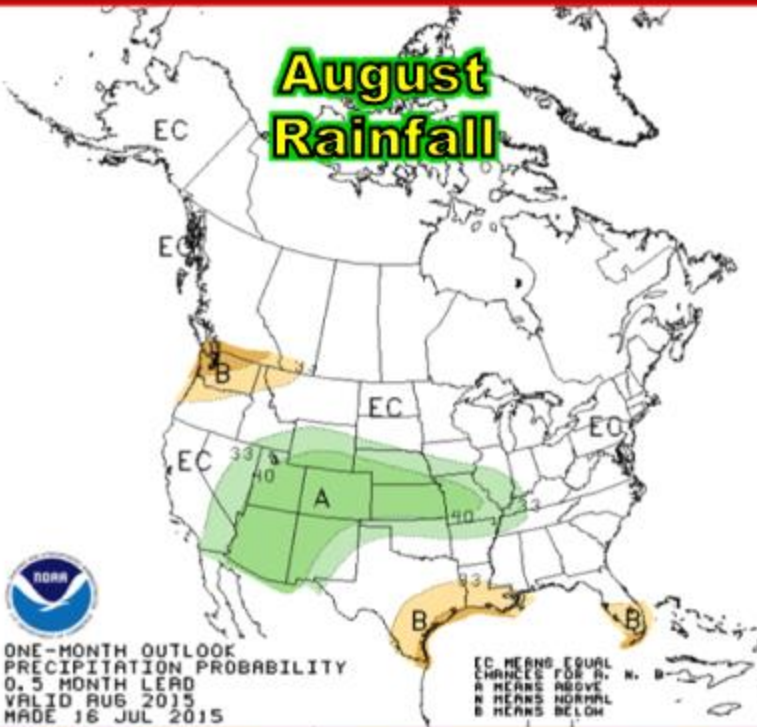


**Red = Extreme drought**  
**Yellow = Abnormally dry**

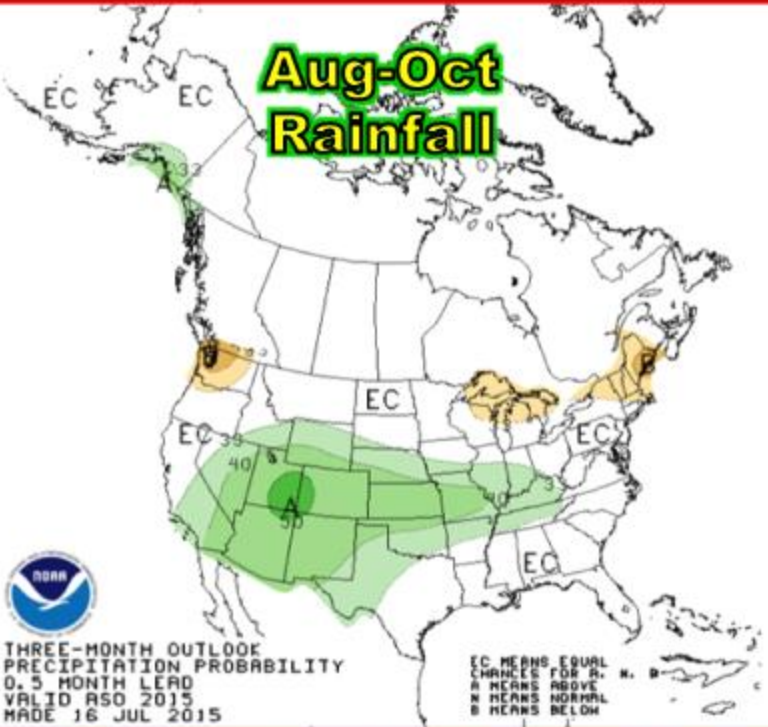
# JULY 2014



## August Rainfall



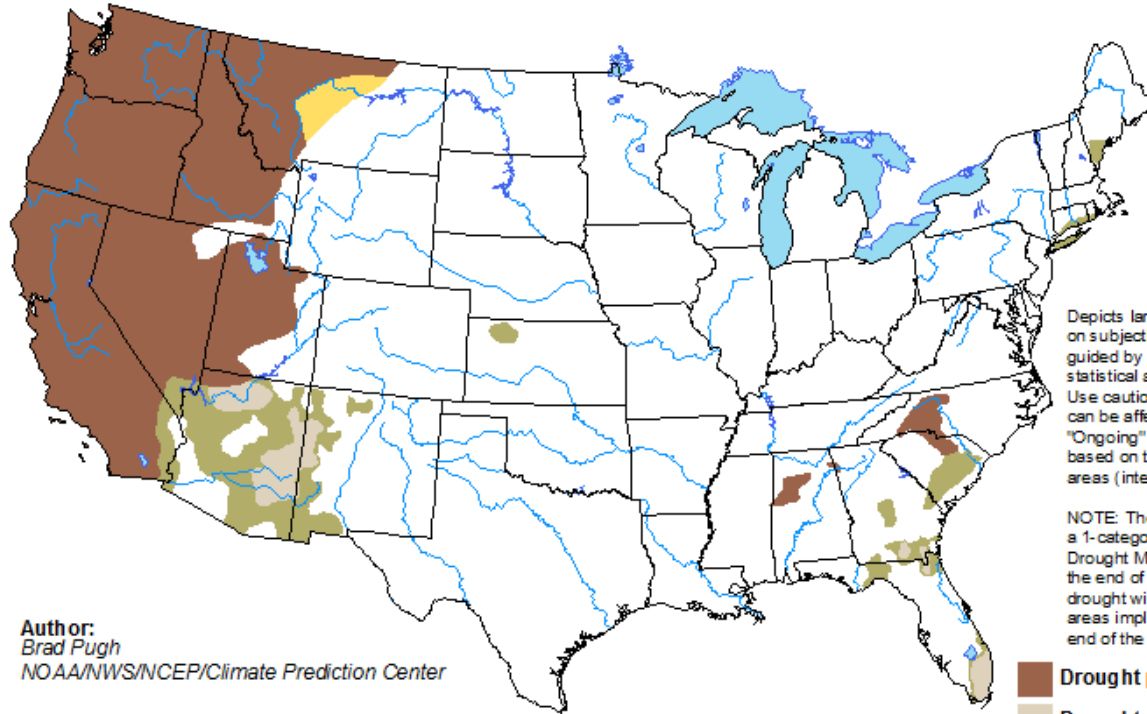
## Aug-Oct Rainfall



# U.S. Seasonal Drought Outlook

## Drought Tendency During the Valid Period





Valid for July 16 - October 31, 2015  
Released July 16, 2015

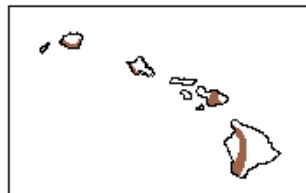
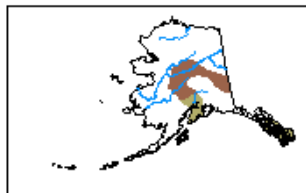


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to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

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

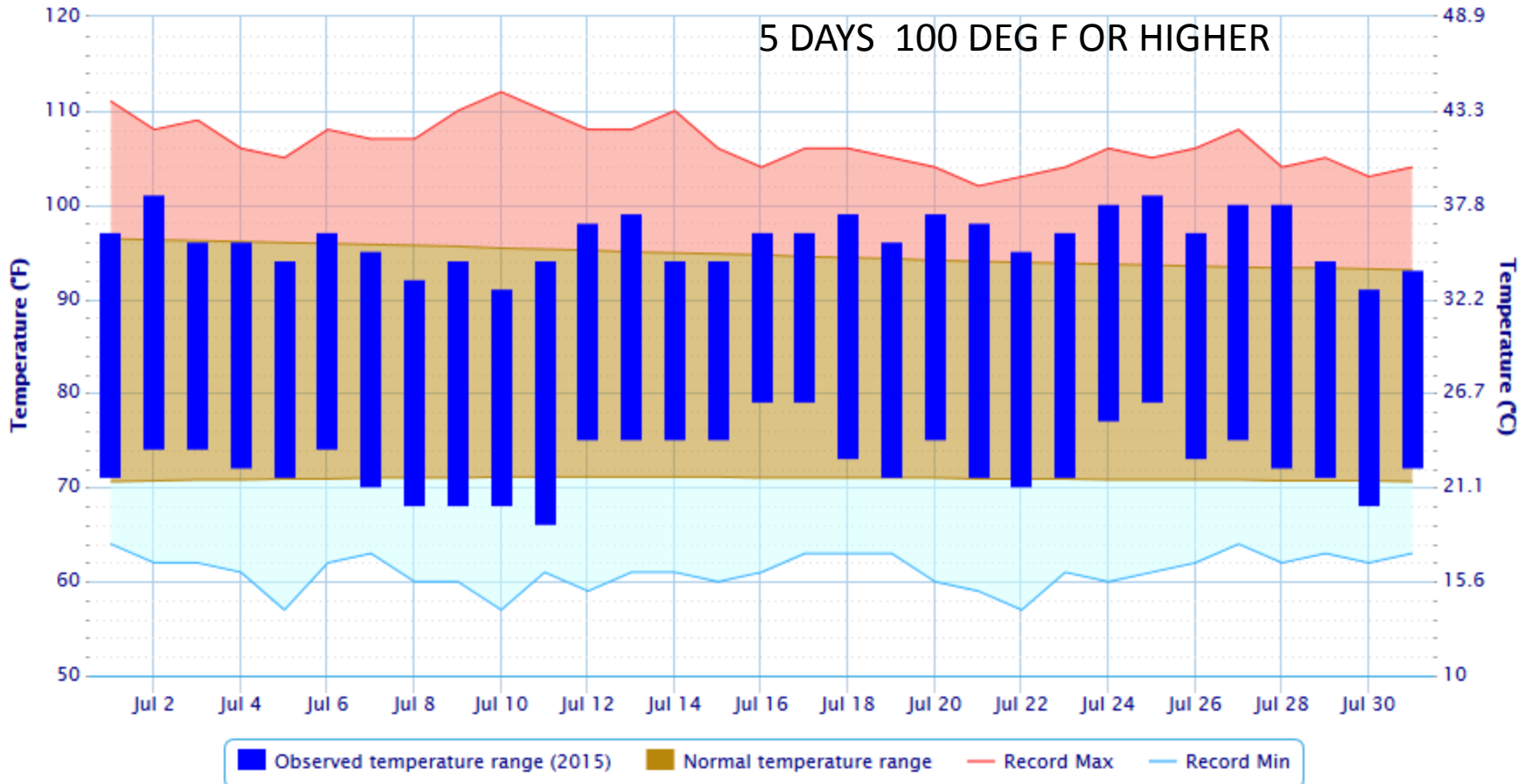


<http://go.usa.gov/hHTe>

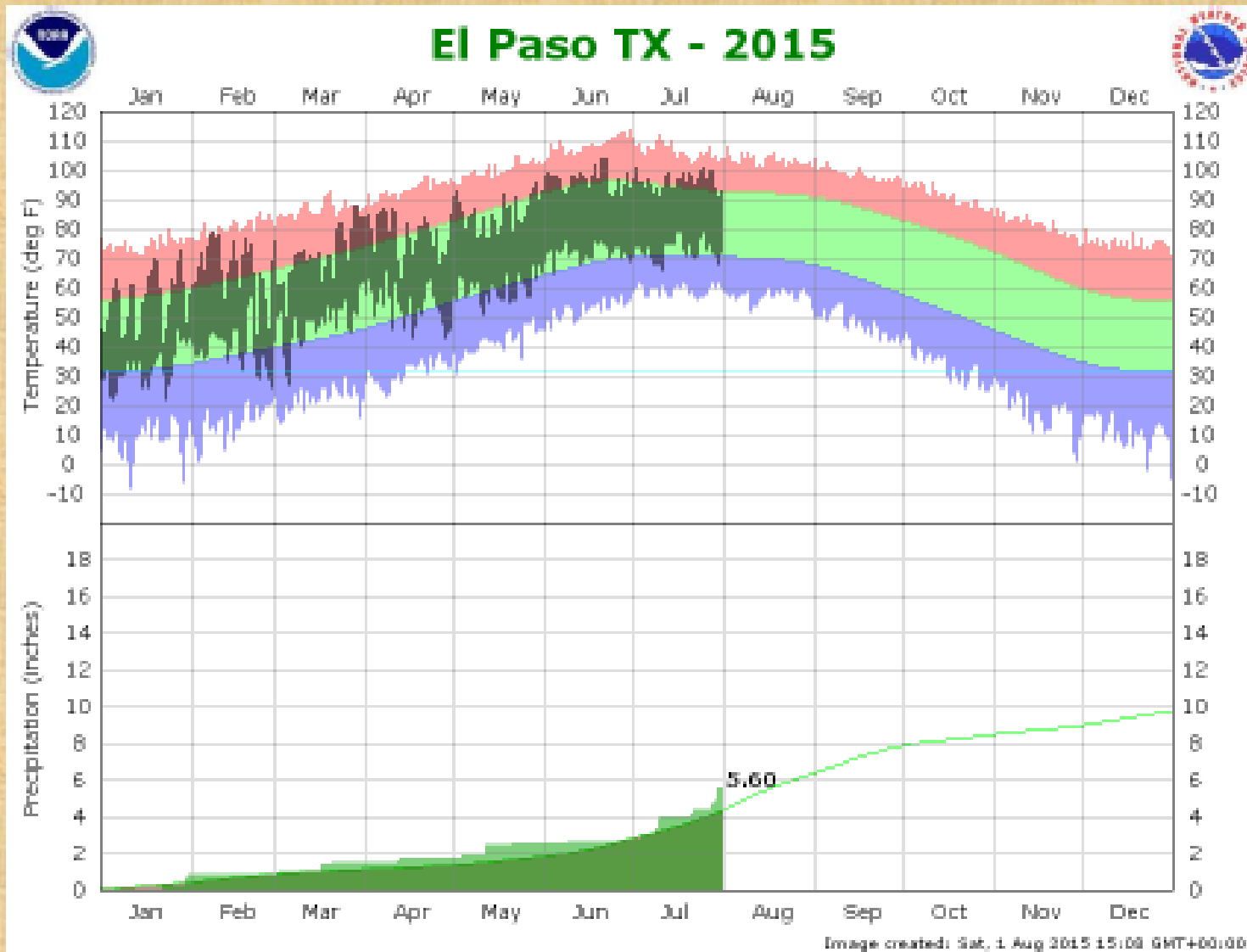
# Daily temperature data for July in El Paso

Daily Temperature Data - EL PASO INTL AP, TX

Period of Record - 1942-12-01 to 2015-07-31. Normals period: 1981-2010. Click and drag to zoom chart.

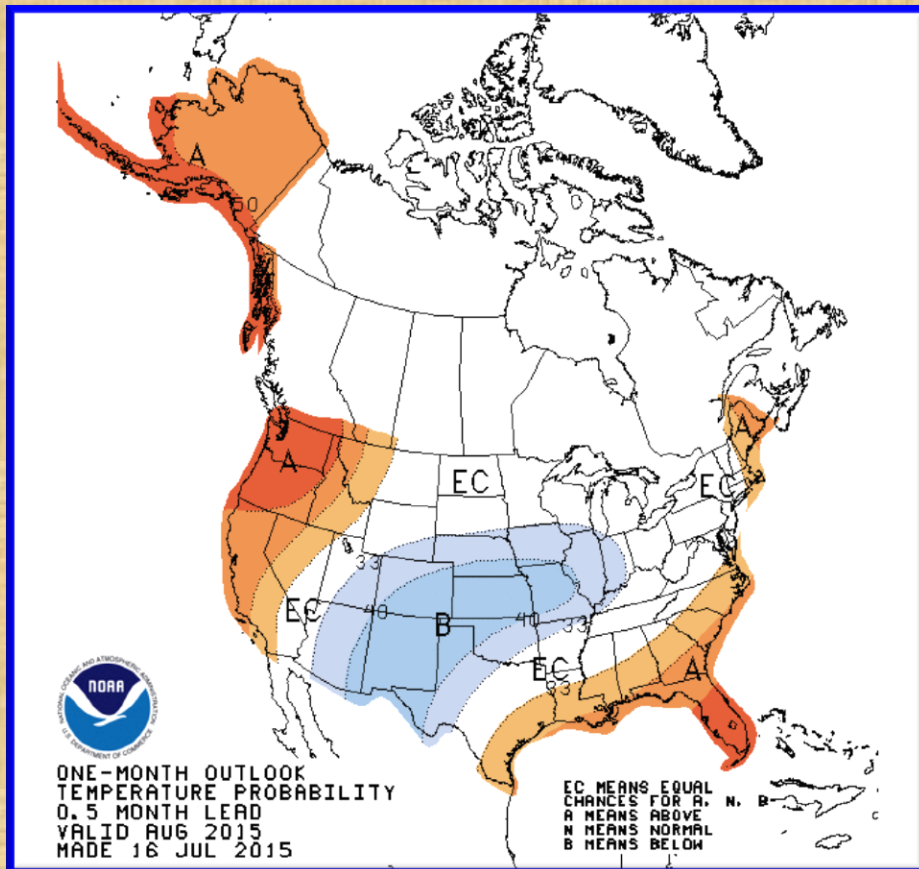


# Daily temperature/precipitation data for July in El Paso

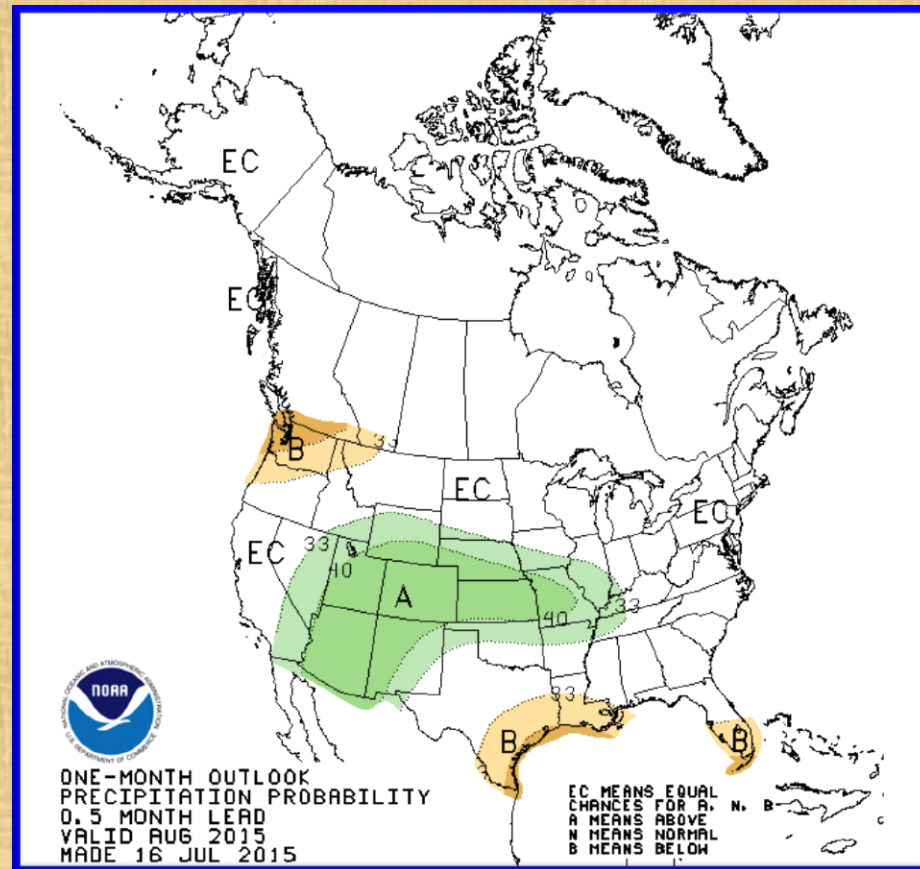


# Temperature and precipitation outlook for August 2015

## Temperature

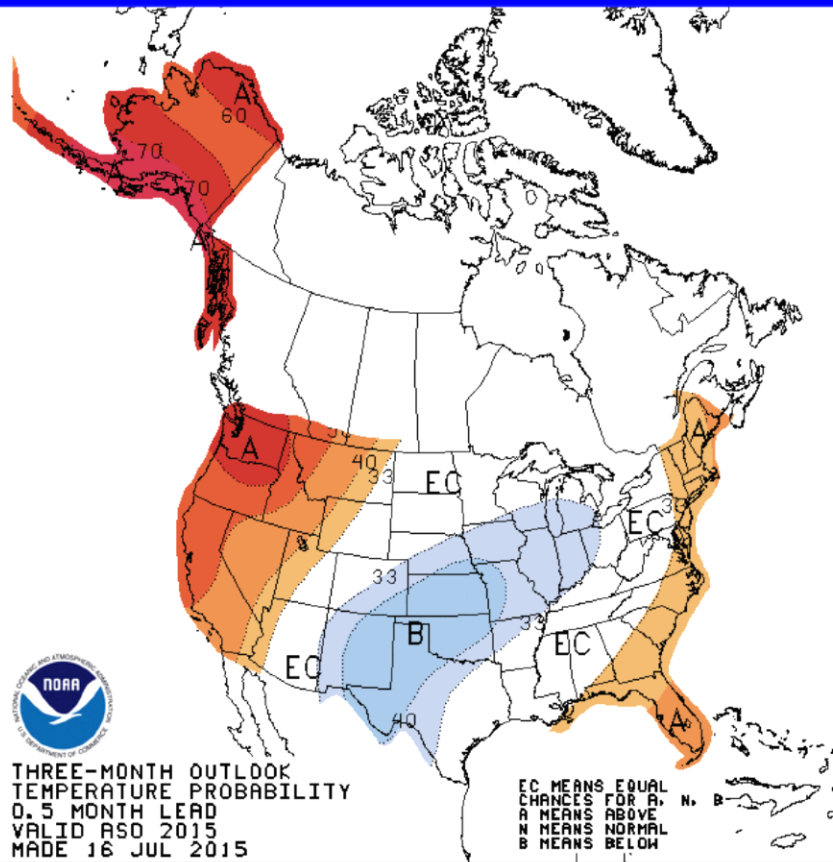


## Precipitation

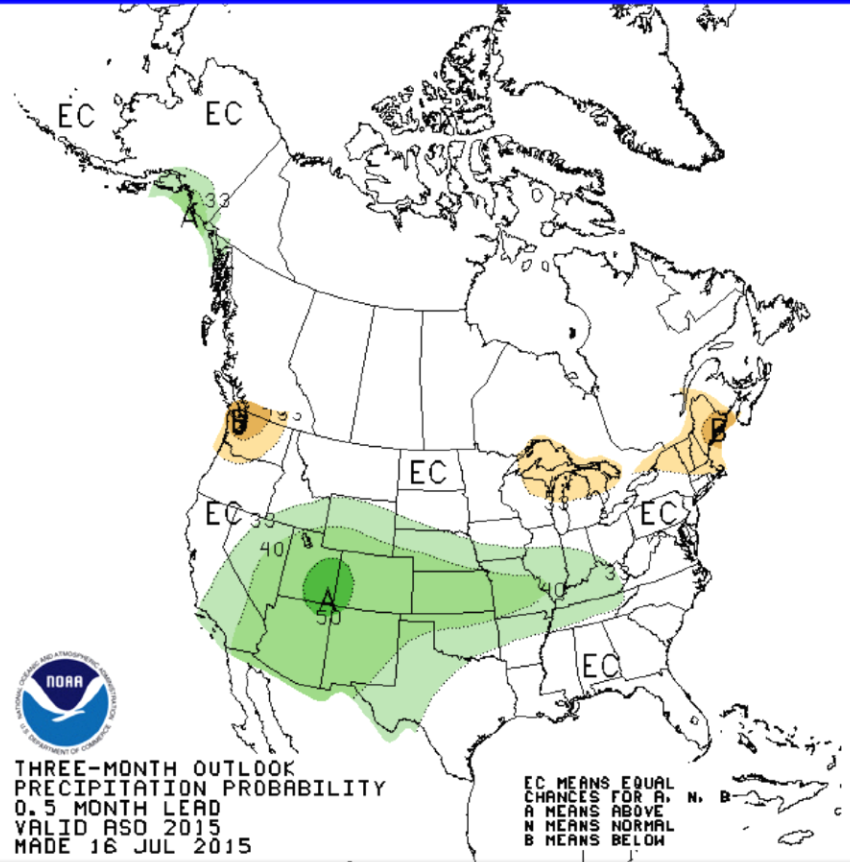


# Temperature and precipitation outlook for Aug - Oct 2015

## Temperature



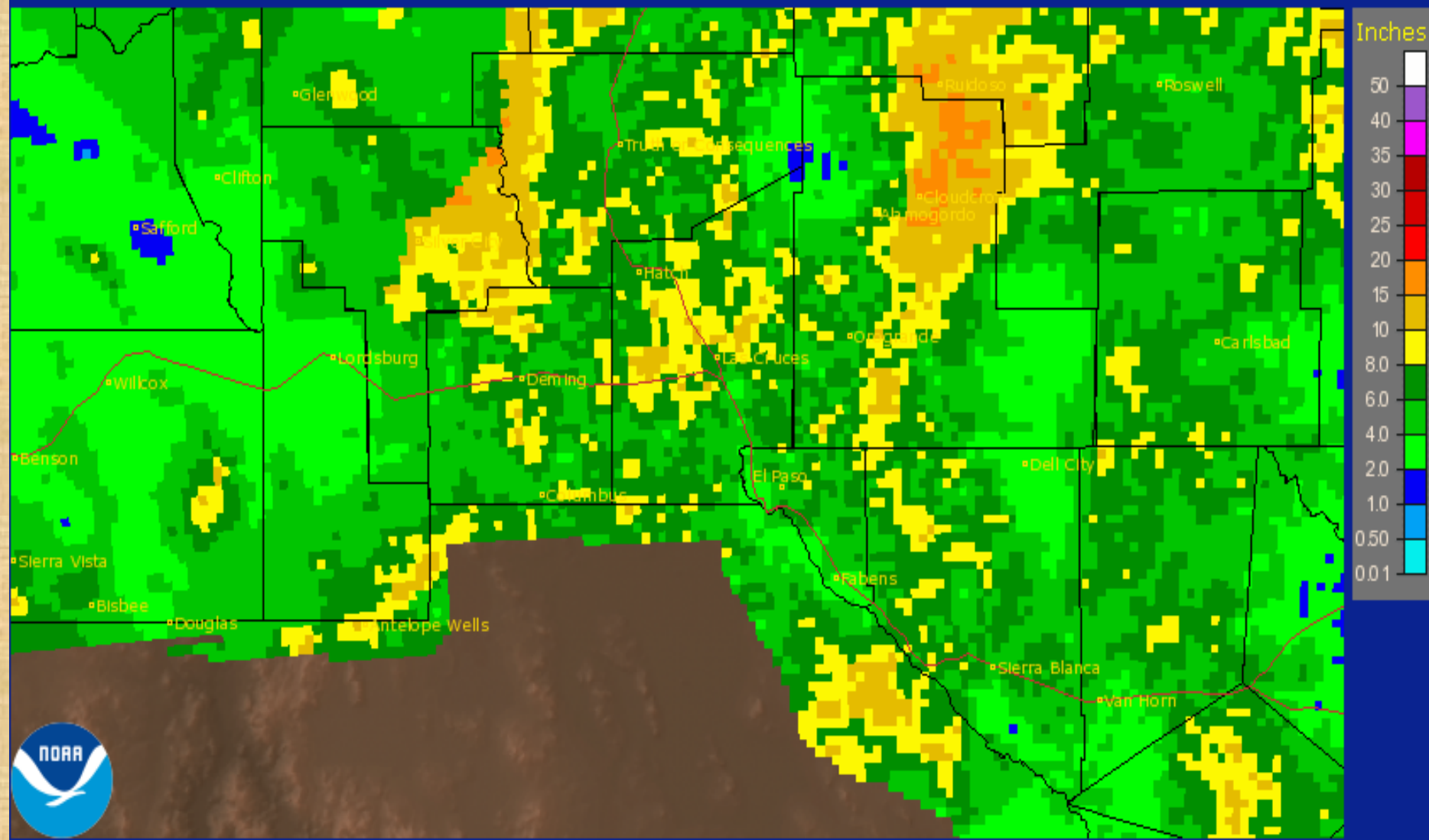
## Precipitation



# Monsoon season so far: June 15 – July 31 Radar Rainfall estimate

El Paso, TX (EPZ): Current 60-Day Observed Precipitation

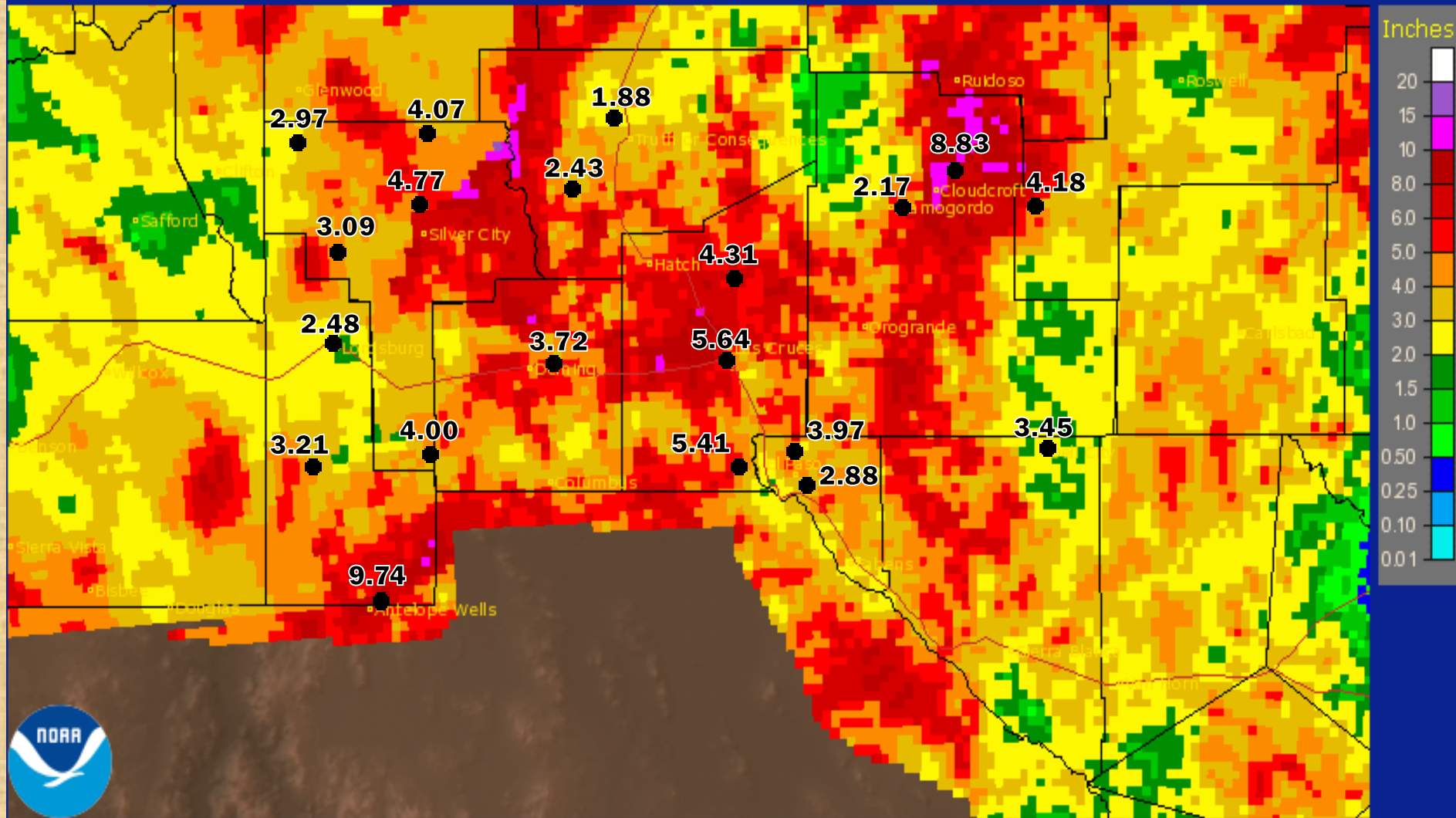
Valid at 8/4/2015 1200 UTC - Created 8/5/15 0:28 UTC





# July 2015 radar rainfall estimate with surface rainfall reports

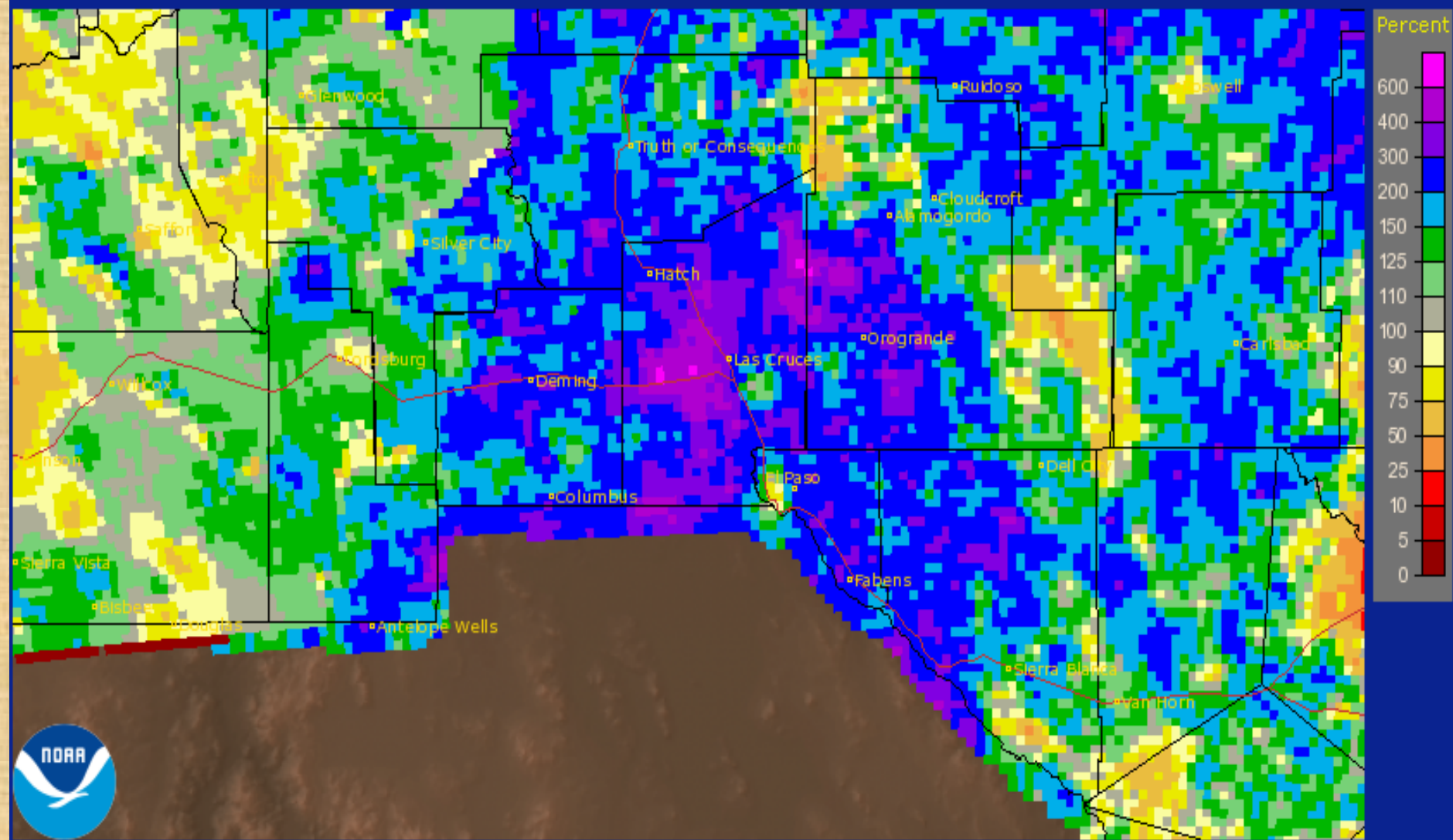
El Paso, TX (EPZ): July, 2015 Monthly Observed Precipitation  
Valid at 8/1/2015 1200 UTC - Created 8/3/15 22:04 UTC



# July 2015 Radar Rainfall Estimate (Percent of normal)

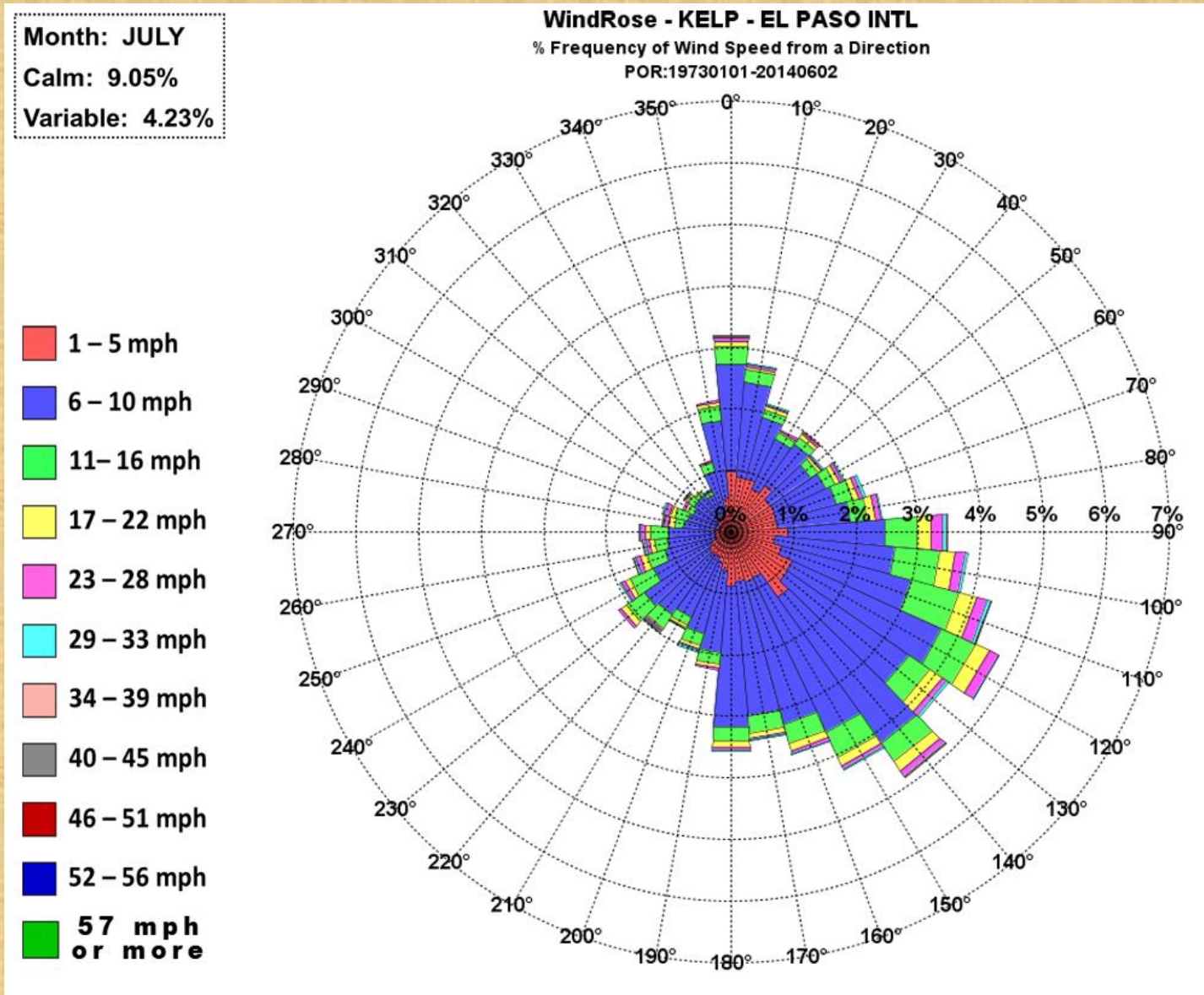
El Paso, TX (EPZ): July, 2015 Monthly Percent of Normal Precipitation

Valid at 8/1/2015 1200 UTC - Created 8/3/15 22:05 UTC



# Special Features

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



# Selected weather reports July 2015

<b>Date/Time</b>	<b>Location (County)</b>	<b>Event</b>
7/07/2015 400 PM	SAN AUGUSTIN PASS-DONA AÑA	WIND GUST-66 MPH
7/07/2015 642 PM	13 W SIERRA BLANCA-HUDSPETH	WIND DAMAGE-SEMI AND MULT CARS BLOWN OFF ROAD
7/07/2015 227 PM	LAS CRUCES-DONA AÑA	1.00 INCH HAIL
7/07/2015 536 PM	CORNUDAS-HUDSPETH	1.75 INCH HAIL
7/07/2015 815 PM	13 W SIERRA BLANCA-HUDSPETH	2.00 INCH HAIL
7/08/2015 140 PM	CHLORIDE-SIERRA	1.00 INCH HAIL
7/08/2015 714 PM	WINSTON-SIERRA	FLASH FLOOD-HWY 52 NEAR WINSTON CLOSED
7/09/2015 245 PM	CHLORIDE-SIERRA	1.00 INCH HAIL
7/09/2015 522 PM	WINSTON-SIERRA	FLASH FLOOD-POVERTY CREEK OVERFLOWING HWY 52
7/10/2015 115 PM	4 NE SUNSHINE-LUNA	1.00 INCH HAIL
7/10/2015 123 PM	DEMING-LUNA	1.00 INCH HAIL
7/10/2015 126 PM	5 SE DEMING-LUNA	1.00 INCH HAIL
7/10/2015 509 PM	10 NW EL PASO	1.00 INCH HAIL

# Selected weather reports July 2015

<b>Date/Time</b>	<b>Location (County)</b>	<b>Event</b>
7/10/2015 520 PM	4 SE CANUTILLO-EL PASO	1.00 INCH HAIL
7/10/2015 522 PM	8 NW EL PASO	1.00 INCH HAIL
7/10/2015 150 PM	3 E DEMING-LUNA	FLASH FLOOD-STIRRUP RD CLOSED
7/10/2015 400 PM	VIRDEN-HIDALGO	FLASH FLOOD-HWY 92 DAMAGED FROM RUNNING WATER
7/10/2015 449 PM	4NW SANTA TERESA-DONA AÑA	WIND GUST-68 MPH
7/22/2015 638 PM	TIMBERON-OTERO	FLASH FLOOD-SACRAMENTO RVR OUT OF BANKS

# **Watching the sky for you 24/7 KEPZ Doppler Weather Radar**

