

February 2021 Weather Digest



February 2021 Weather Summary

February weather tried to stray a little from typical La Niña weather. Precipitation was mostly below normal, though east of the Rio Grande Valley, many places reported near to slightly above normal precipitation. February temperature patterns were a bit closer to the typical La Niña pattern of above normal high temperatures and near or below normal low temperatures, though high temperatures were not as much above normal as a typical La Niña pattern would suggest.

For the month, despite precipitation being mostly below normal, snowfall for many sites was above normal, thanks to a mid month cold snap and snowstorm. The storm began moving in on the 13th as a record breaking cold air from our east moved into the area and combined with a Pacific low pressure system to dump snow across much of the area including many lowland sites. The snow fell mostly on the 14th giving snow fans a nice white Valentine's Day present. Another storm quickly moved in on the 15th and 16th, giving the mountains a second shot of heavy snow. Mountain areas got around 6-15 inches of snow from the two storms, while many lowland sites received 2-5 inches of snow from the Valentine's Day storm. Unfortunately further north over southern Colorado, the upper basin and headwaters of the

February 2021 Weather Summary, cont'd

of the Rio Grande suffered low snowfall for the month. When looking at snow water equivalent, the basin had been ahead of normal, and even slightly ahead of the west 2018-19 season, but February took us below the pace of 2018-19 and we now sit near normal for snow water equivalent as of the end of February.

Though total precipitation was mostly below normal, though not far from normal, drought conditions continued to worsen. Basically our entire forecast area is now in extreme or exceptional drought except Sierra and Hudspeth Counties.

Looking ahead to March, we continue our warmup to summer. At El Paso, the average high temperature on the 1st is 67 degrees, warming to 74 degrees on the last day of the month. March begins the first of our three consecutive driest months, so drought conditions will not likely see any improvements. Daylight continues to increase from 11 hours and 31 minutes on the 1st to 12 hours and 29 minutes on the 31st. Several astronomical events happen in March. The Spring Equinox occurs on March 20 at 3:37 am. Before that, we turn our clocks ahead 1 hour for Daylight Savings Time.

February 2021 Weather Summary, cont'd

For our lunar fans, our March full moon occurs on the 28th, which also sets Easter as the following Sunday. This full moon is known as the Worm Moon. This name is thought to be derived from the soil beginning to warm up and often times earthworms begin their trek from dormancy underground to migrating up to the surface. The new moon occurs on March 13th.

Feb 3 Lenticular Clouds



Feb 3 Lenticular Clouds



Feb 3 Lenticular Clouds



Feb 3 Lenticular Clouds



Feb 14 Sun Bowl Snow



Feb 14 SW Park Snow



Feb 14 El Paso Snow



Feb 14 El Paso Snow



Feb 14 El Paso Zoo Snow



Feb 14 Transmountain Rd Snow



Feb 14 Santa Teresa Snow



Feb 14 Santa Teresa Snow





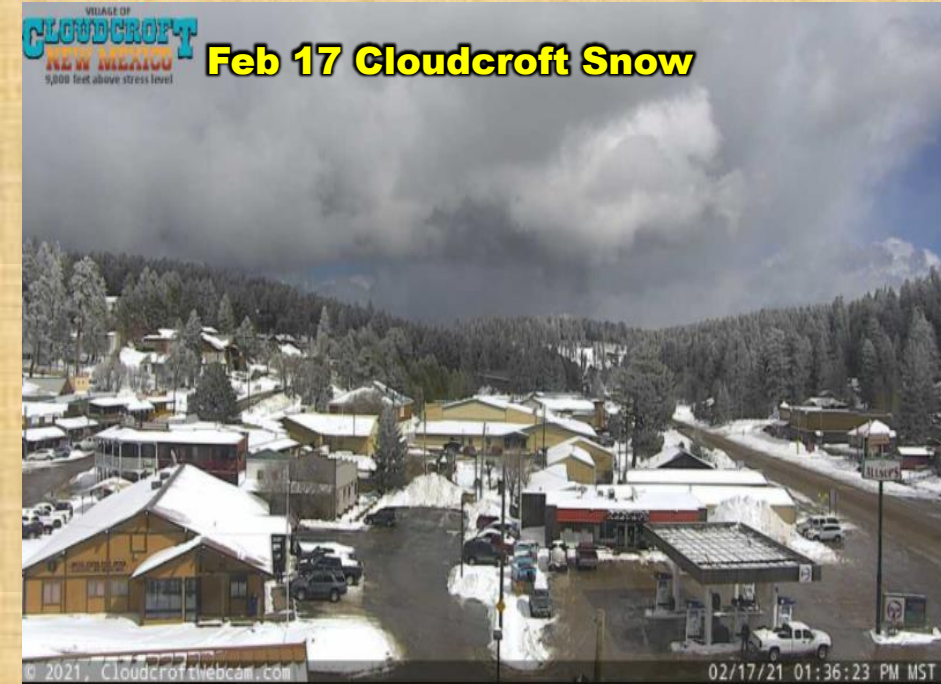
Feb 14 Lordsburg Snow



Feb 14 Hillsboro Snow



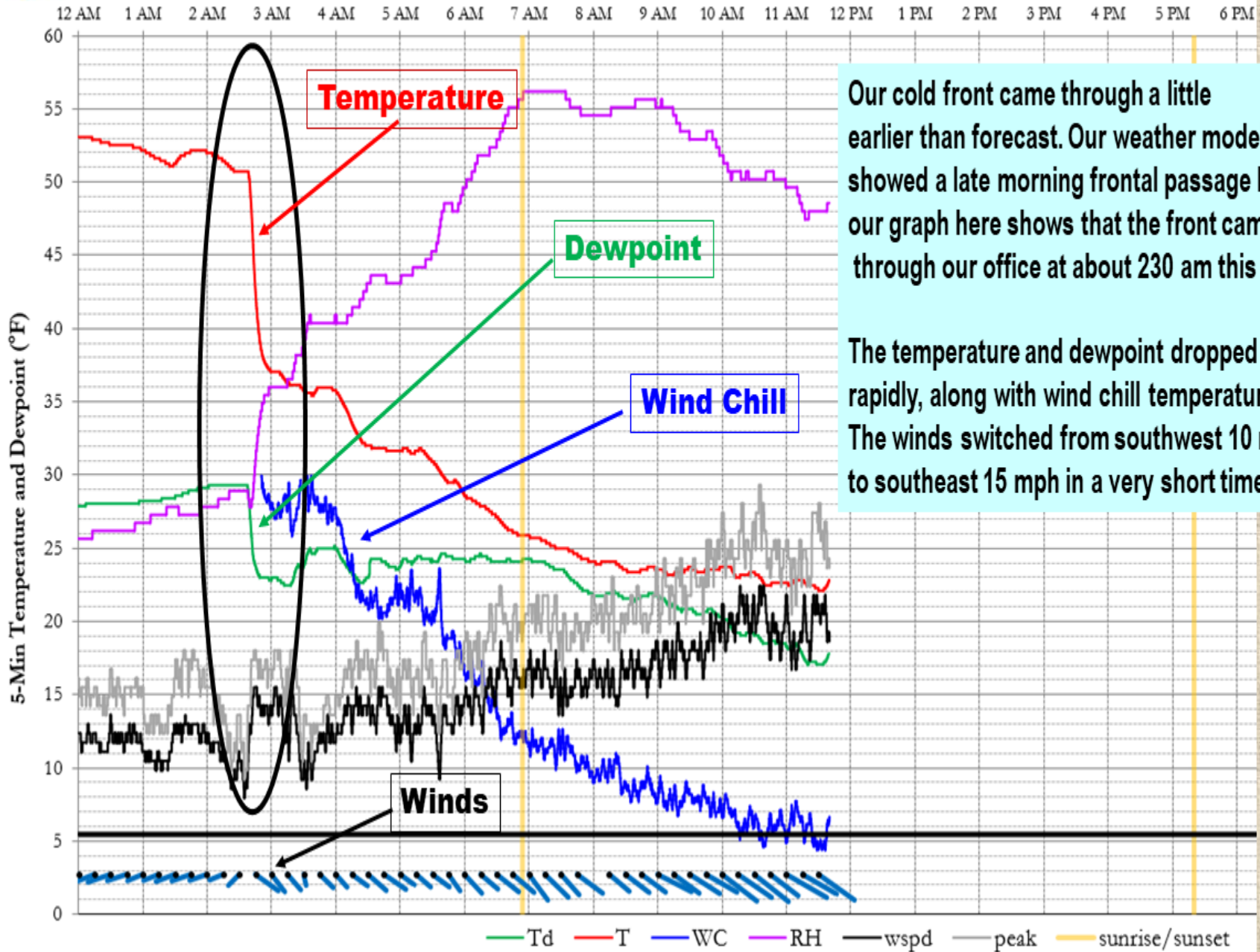
Feb 17 Cloudcroft Snow





WFO Santa Teresa, NM RSOIS Data (2/14/2021)

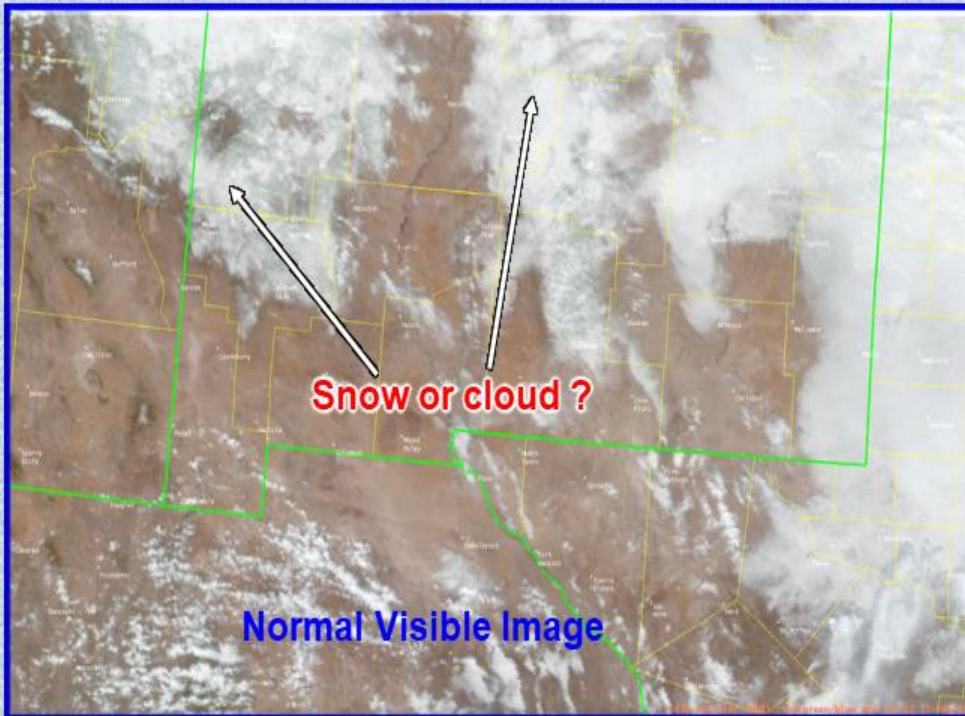
Hour of day (LST)



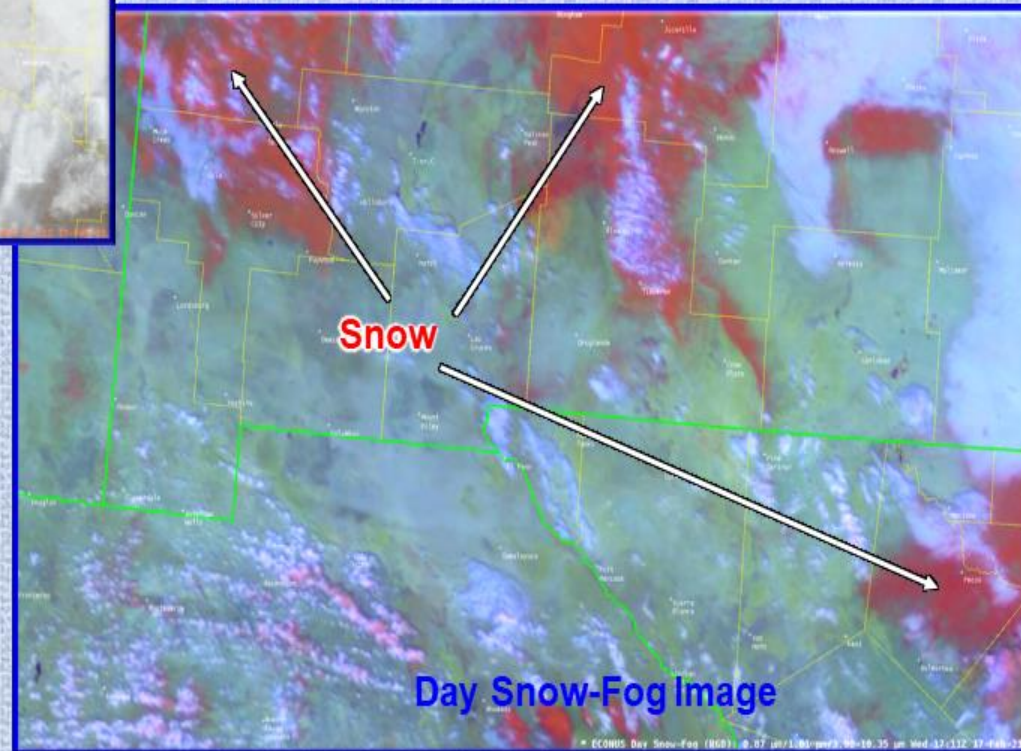
Our cold front came through a little earlier than forecast. Our weather models showed a late morning frontal passage but our graph here shows that the front came through our office at about 230 am this morning.

The temperature and dewpoint dropped very rapidly, along with wind chill temperatures. The winds switched from southwest 10 mph to southeast 15 mph in a very short time.

Snow Cover Map for Feb 17



Using different color enhancements for snow cover allows the viewer to easily see snow. Looking at the normal visible imagery above, it is hard to differentiate between clouds and snow. But the day snow-fog image to the right easily shows the difference between the two—as snow shows up as red and clouds as white.



ENSO Alert System Status: La Niña Advisory

ENSO Alert System

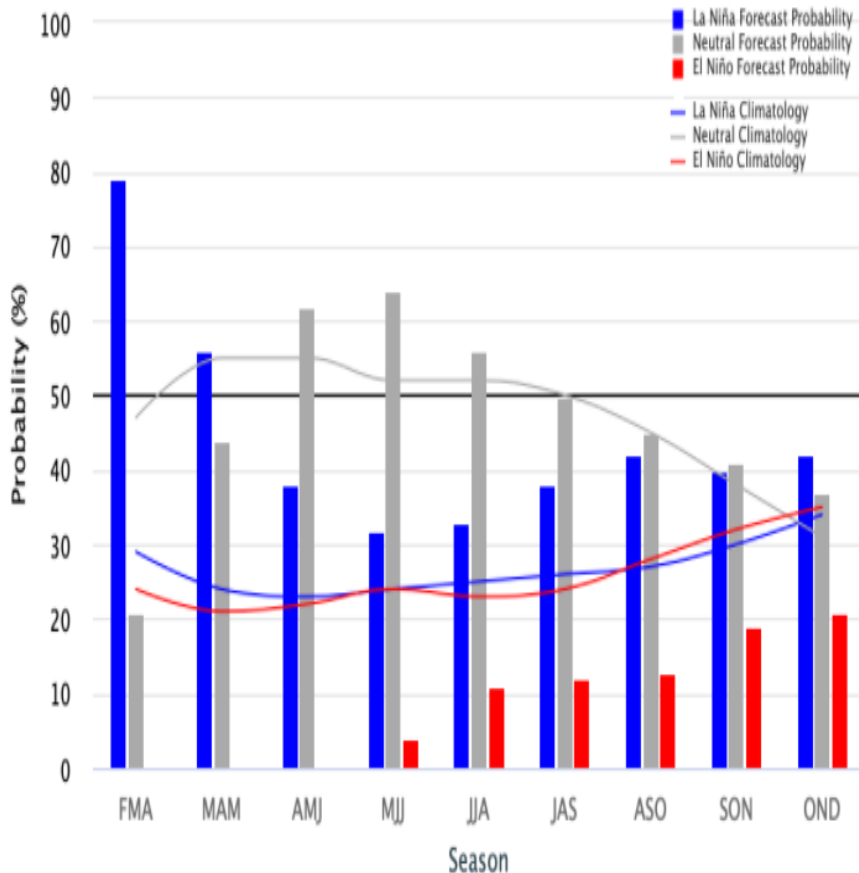
- **El Niño or La Niña Watch:** Issued when conditions are favorable for the development of El Niño or La Niña conditions in the next six months.
- **El Niño or La Niña Advisory:** Issued when El Niño or La Niña conditions are observed and expected to continue.

ENSO Forecast

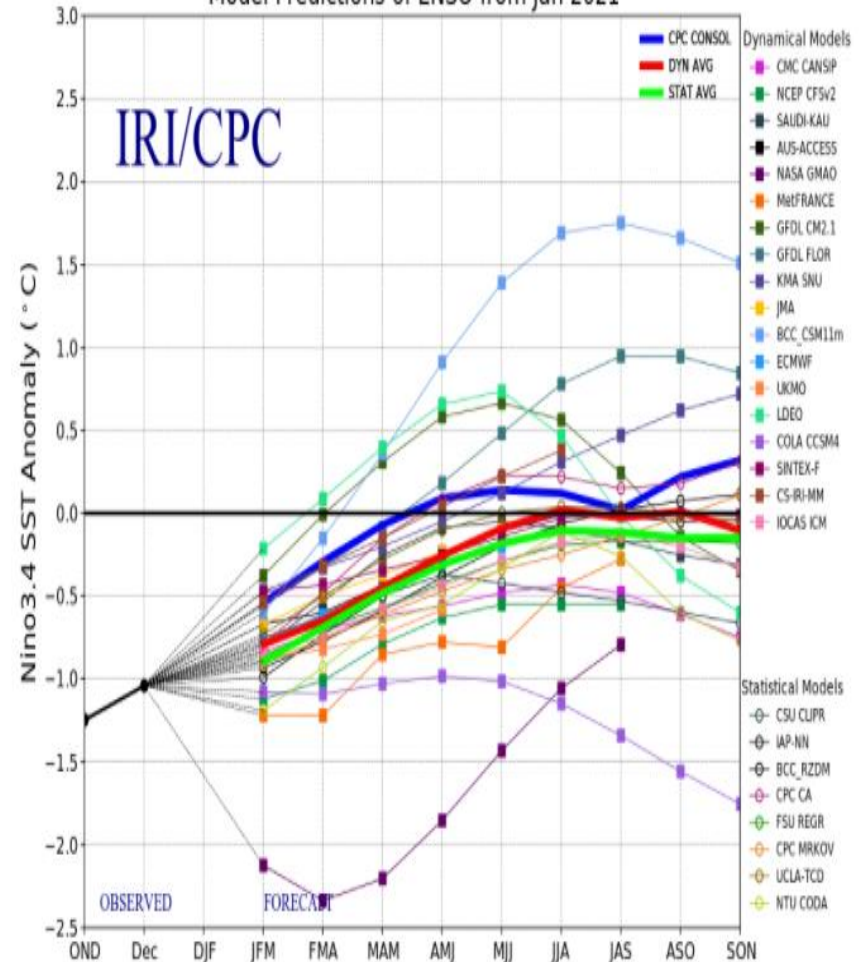
ENSO is now in a moderate La Niña phase; but is weakening as we speak and likely to transition to neutral in the late spring.

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

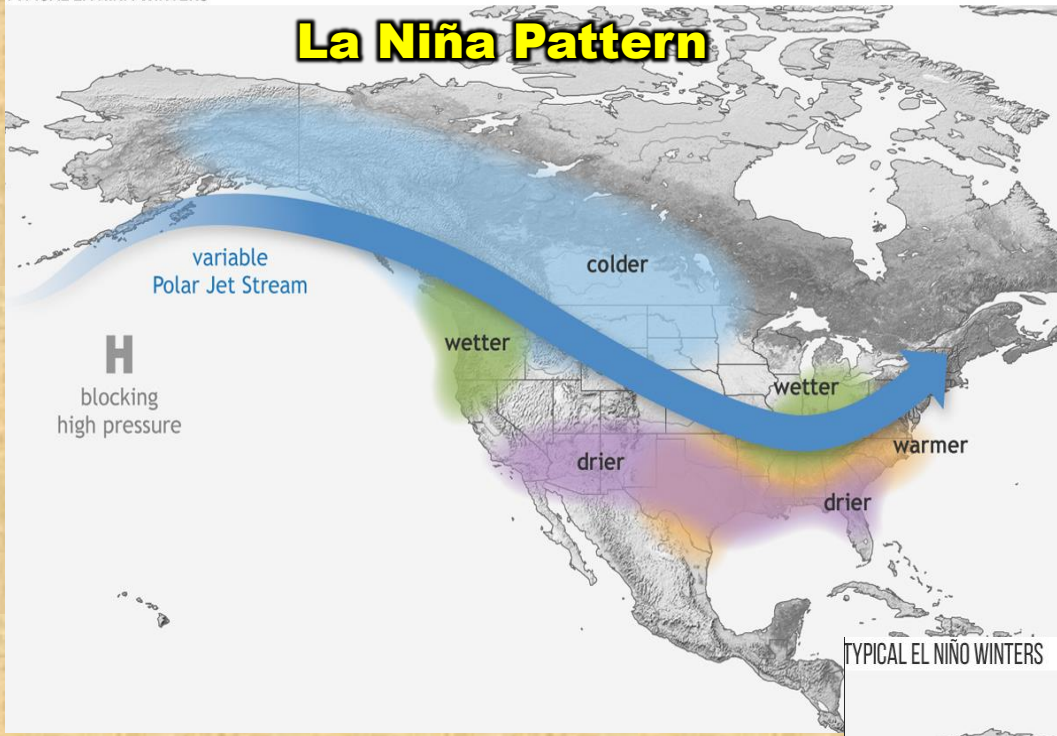
ENSO state based on NINO3.4 SST Anomaly
Neutral ENSO: -0.5°C to 0.5°C



Model Predictions of ENSO from Jan 2021

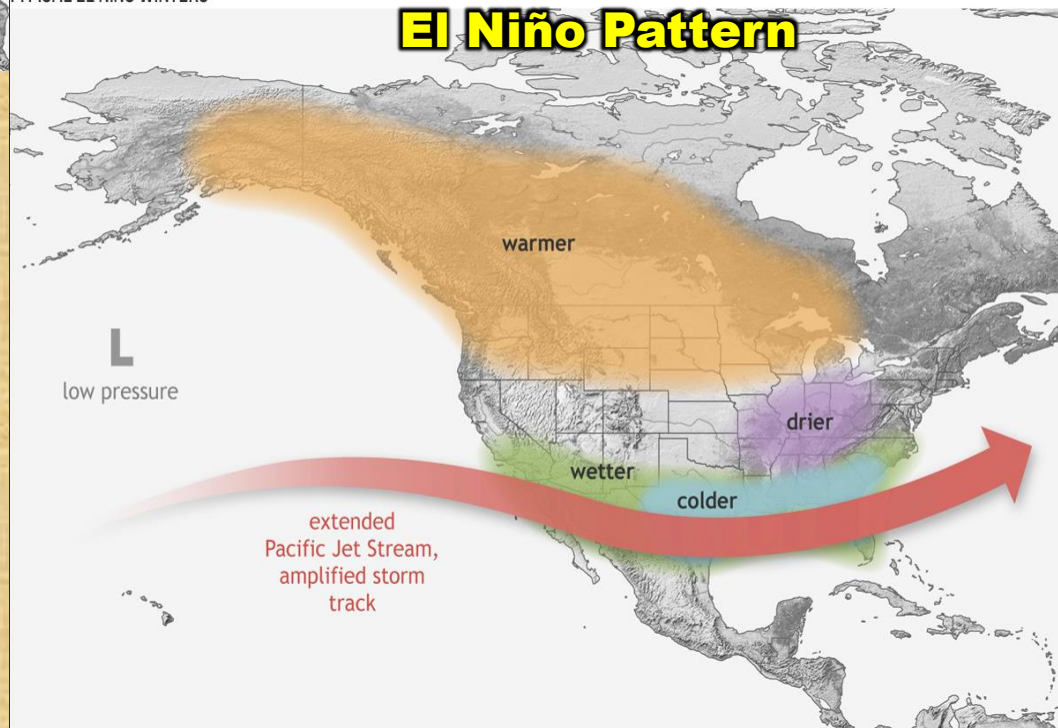


La Niña Pattern



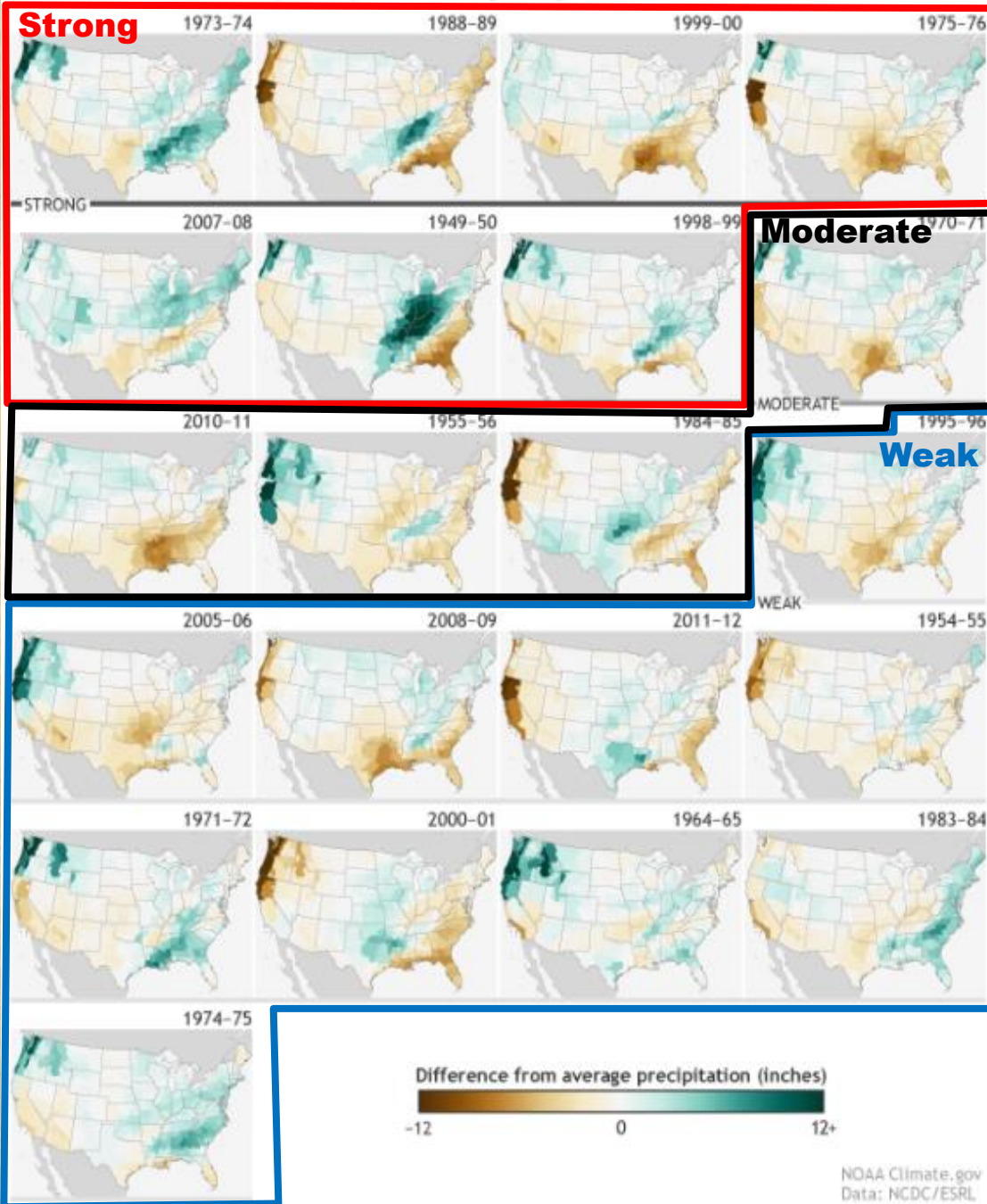
We are heading into a moderate La Niña for much of this winter. As the pattern shows, a ridge of high pressure tends to build off the west coast of the U.S., blocking most of our Pacific winter storm systems. These storms tend to end up moving across the northern Plains and down to the southeastern part of the country. Of course it is important to remember that these patterns are only what typically happens and are not guaranteed to occur.

El Niño Pattern



With El Niño, we often see the opposite pattern where the eastern Pacific ridge of high pressure is often weak or non-existent, allowing winter storms to sweep across the southern U.S. This typically will give the southwestern U.S. above normal precipitation.

Winter (December-February) precipitation during strong, moderate, and weak La Niñas since 1950



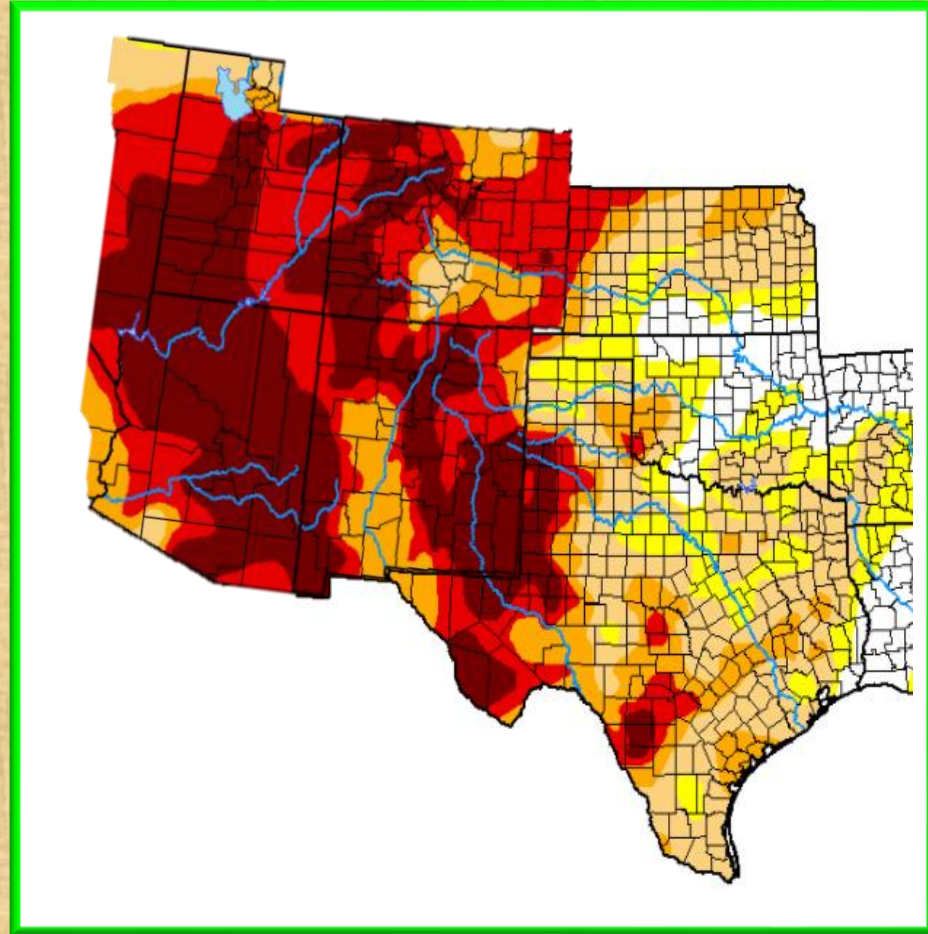
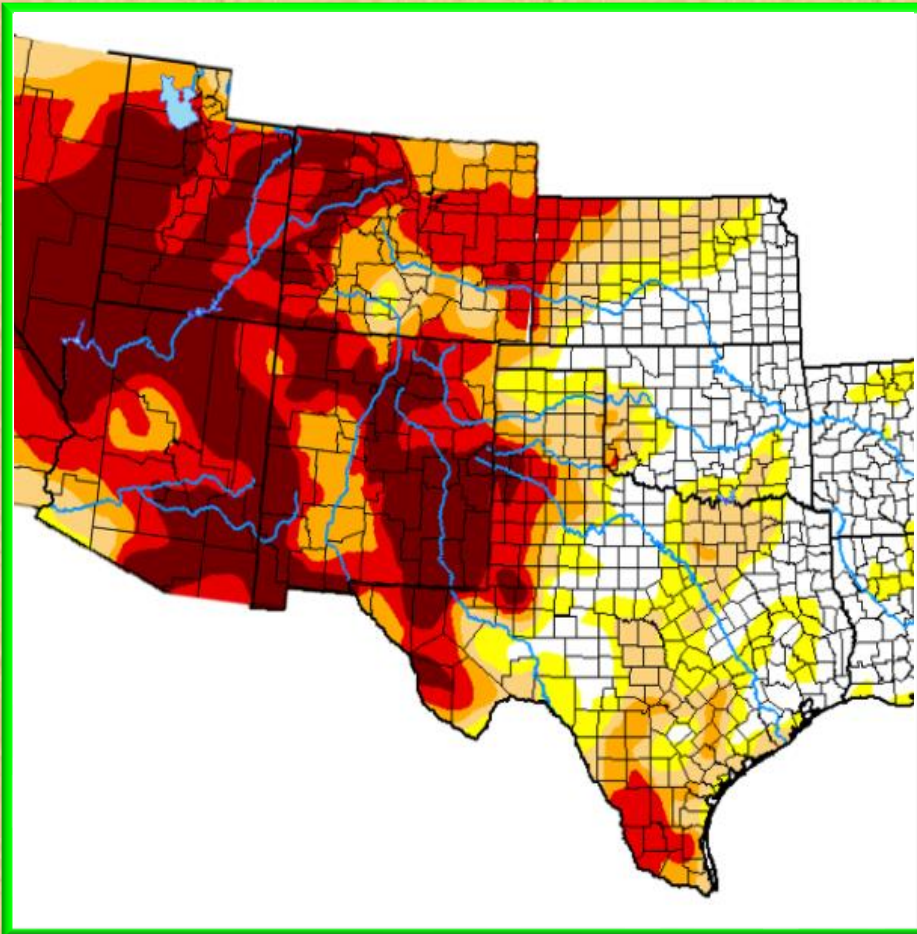
Examples of the numerous La Niña winters since 1950. These maps depict the departure from normal precipitation amounts for a winter.

Current drought conditions and 3 month change

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

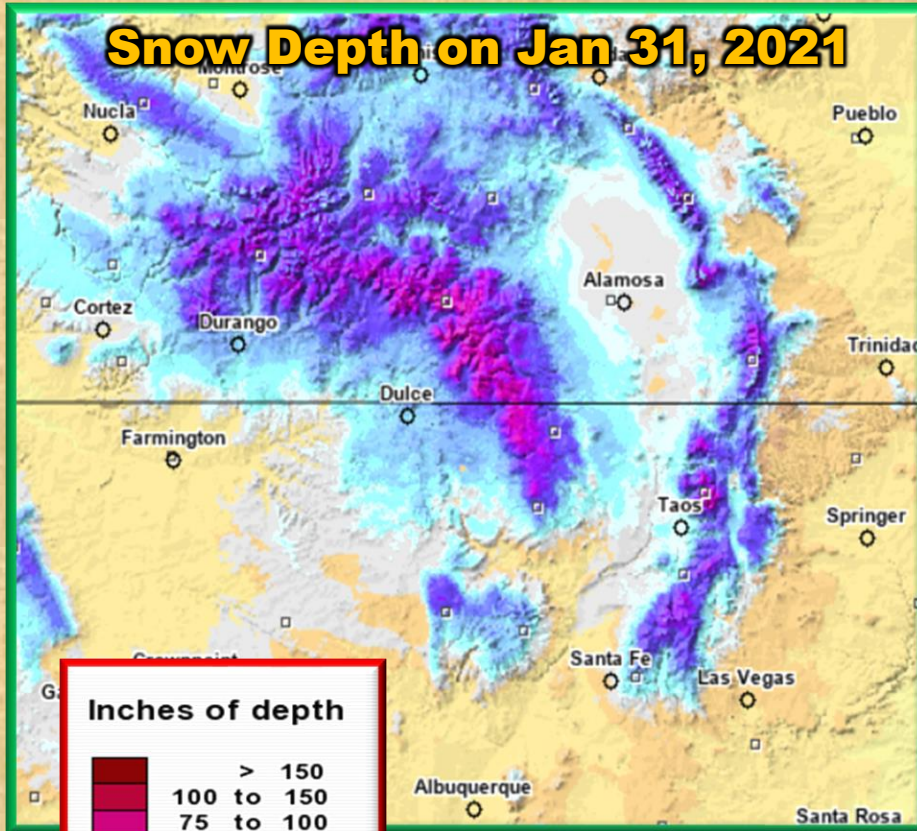
February 23, 2021

November 24, 2020

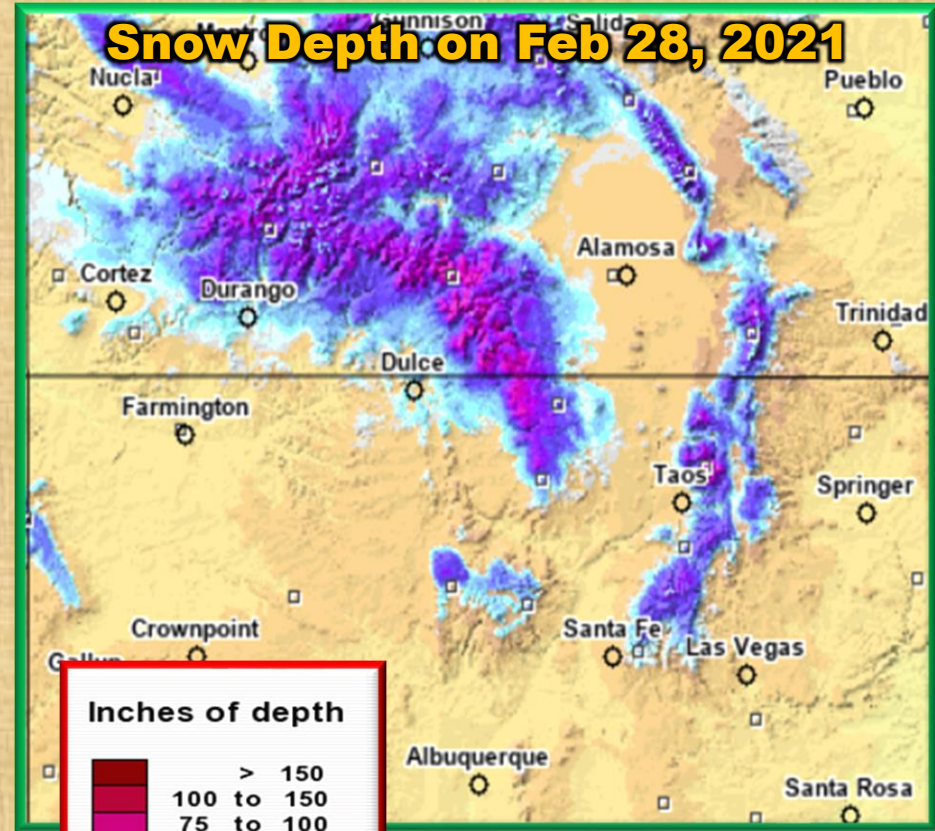


Snow Data Upper Rio Grand Basin as of February 28, 2021

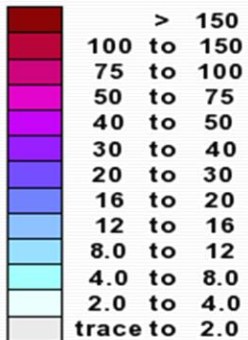
Snow Depth on Jan 31, 2021



Snow Depth on Feb 28, 2021

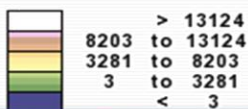


Inches of depth

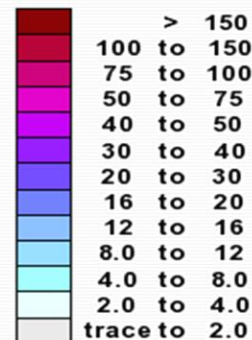


Not Estimated

Elevation in feet

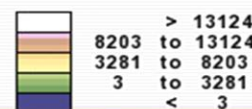


Inches of depth



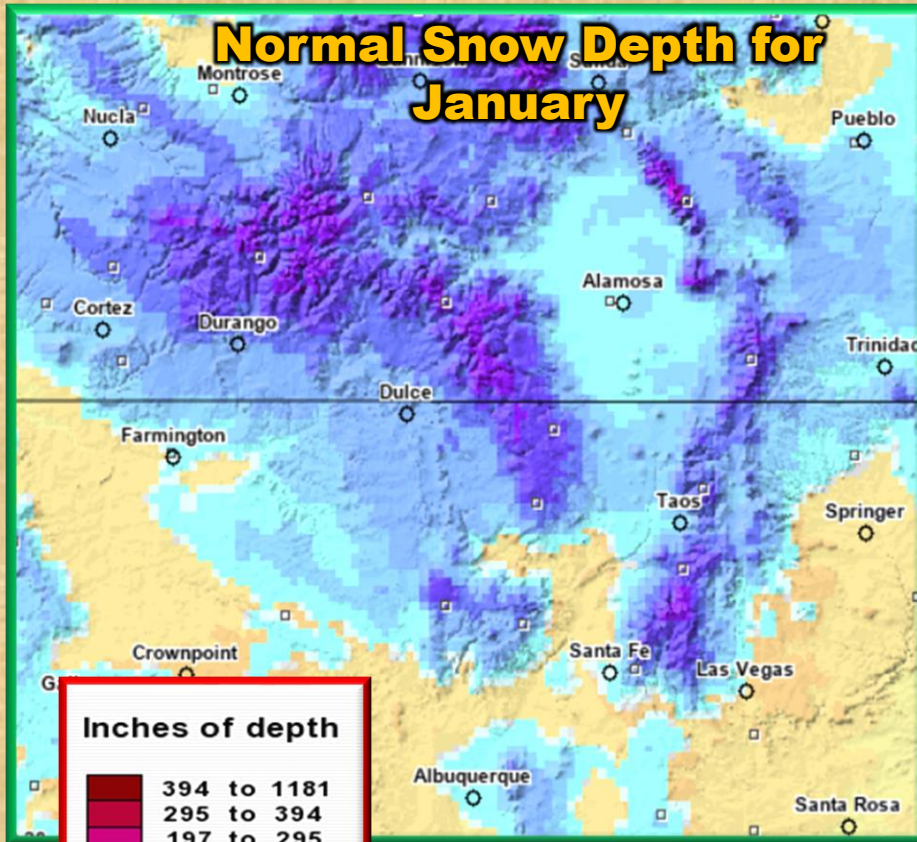
Not Estimated

Elevation in feet

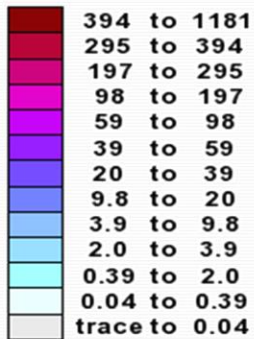


Snow Data Upper Rio Grand Basin as of Feb 28, 2021

Normal Snow Depth for January

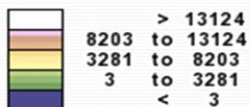


Inches of depth

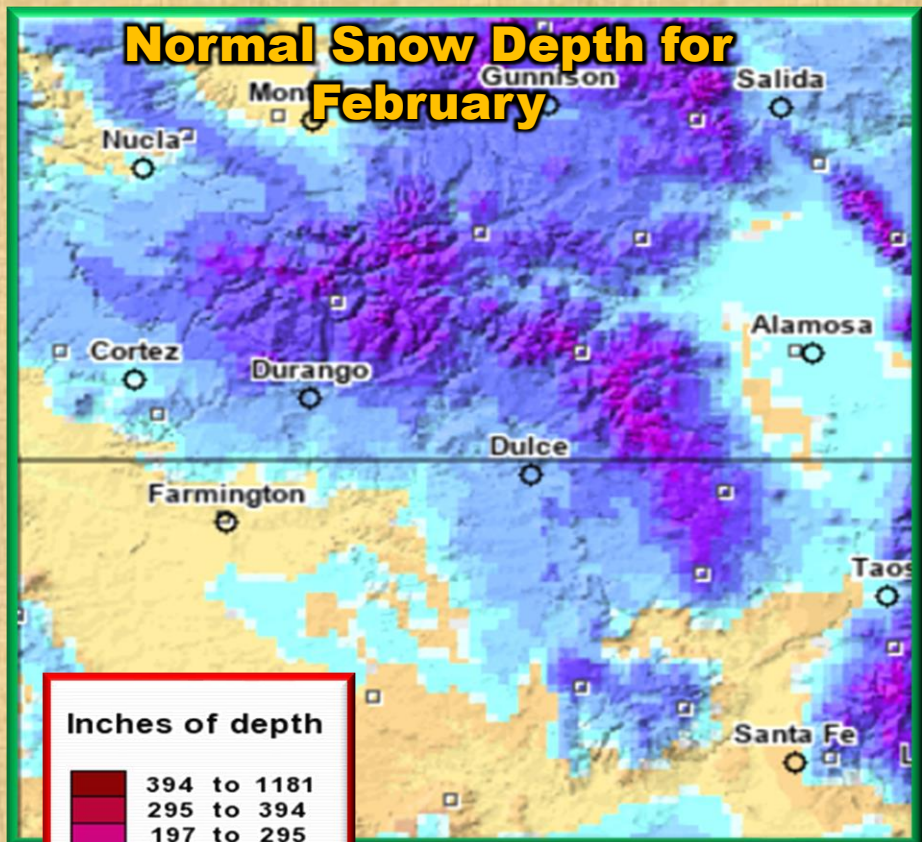


Not Estimated

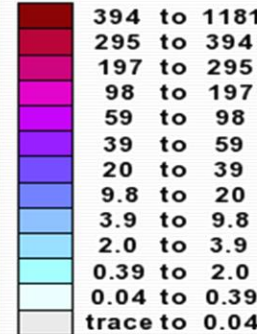
Elevation in feet



Normal Snow Depth for February

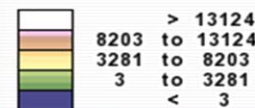


Inches of depth



Not Estimated

Elevation in feet



Snow Water Equivalent as of Feb 28, 2020

Compare to last few years and average values

SNOW WATER EQUIVALENT IN UPPER RIO GRANDE

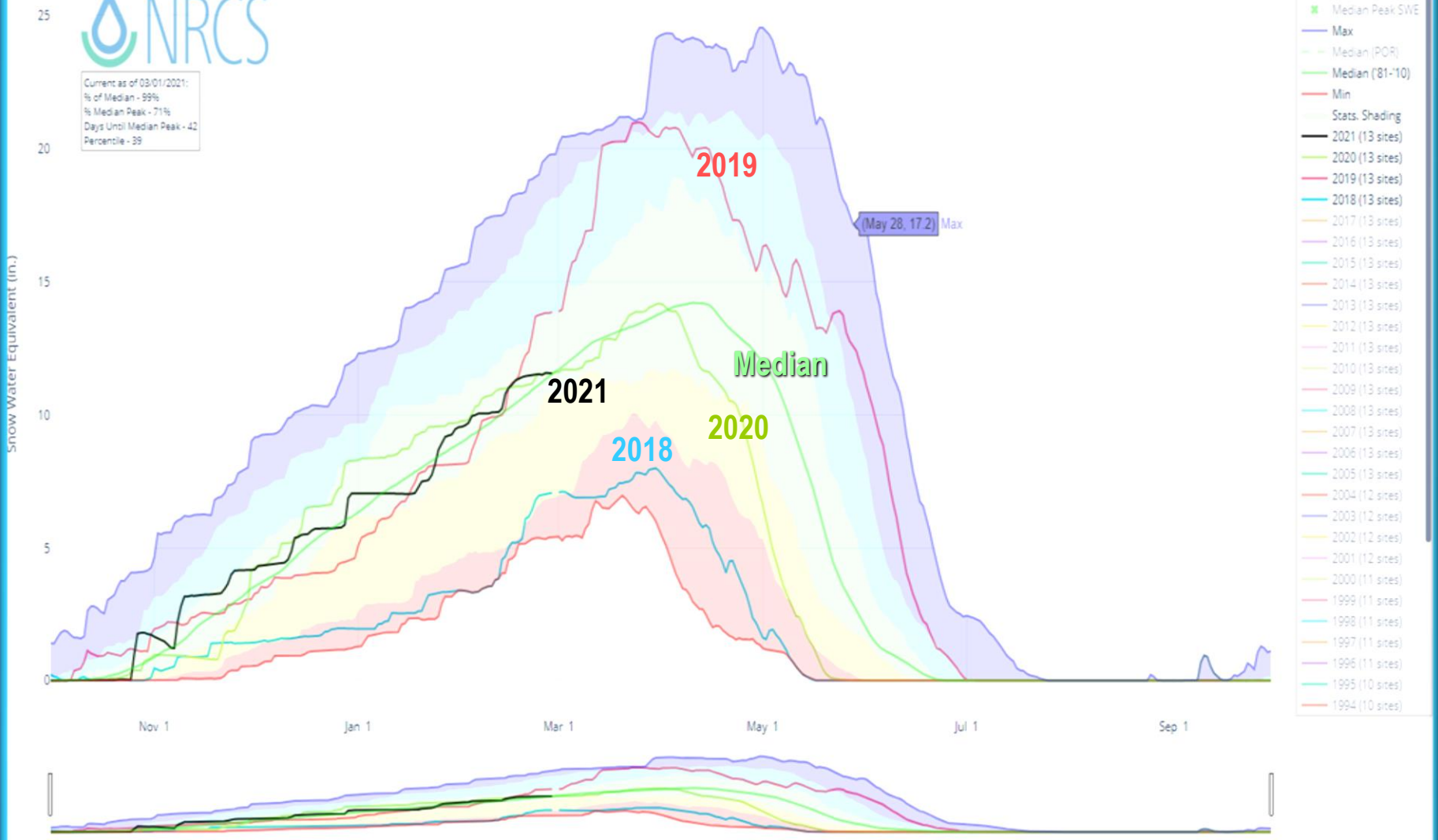
Reset Range

[Link to data: CSV / JSON](#)

[Station List](#)



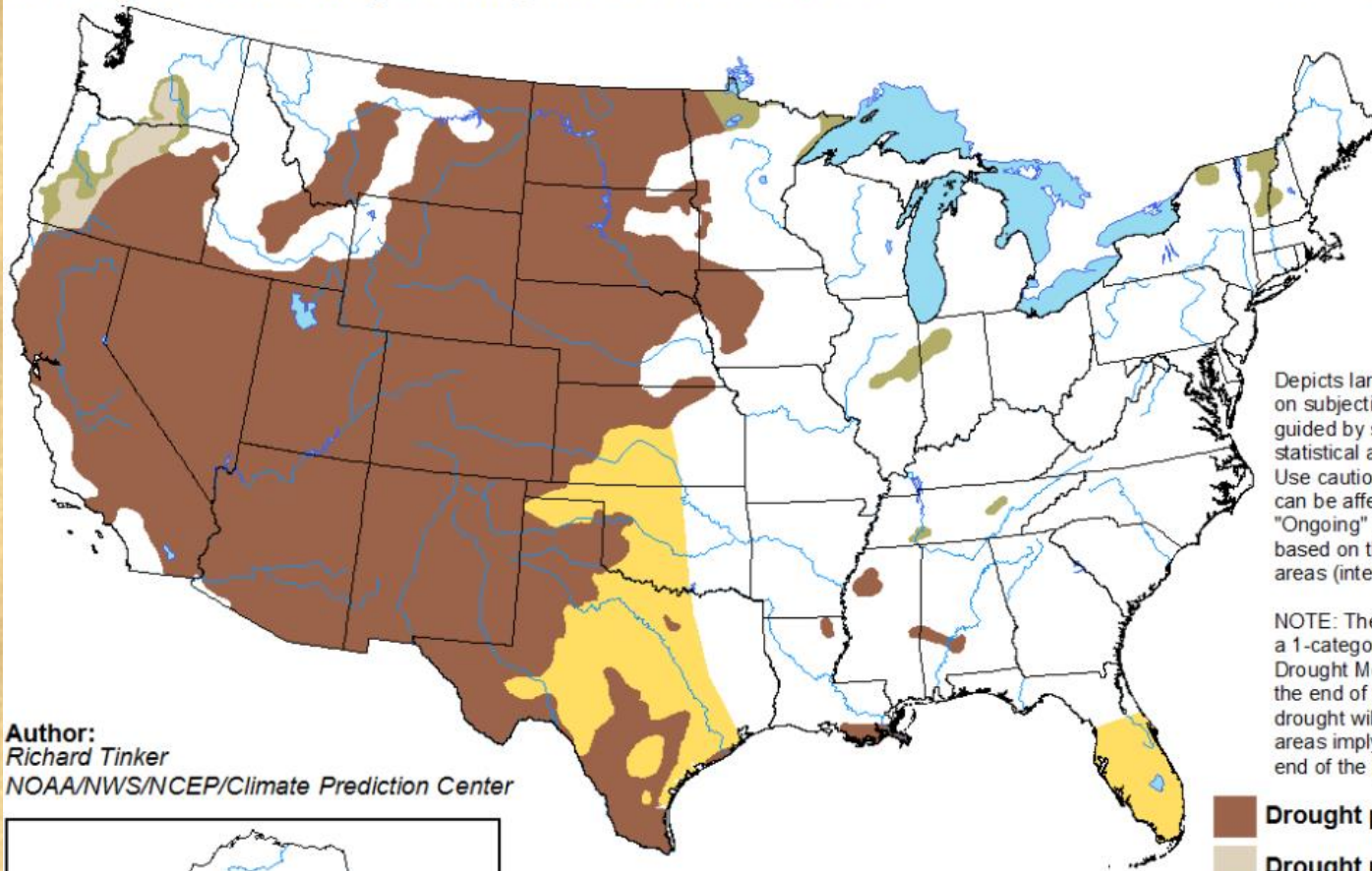
Current as of 03/01/2021:
% of Median - 99%
% Median Peak - 71%
Days Until Median Peak - 42
Percentile - 39



U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for February 18 - May 31, 2021
Released February 18

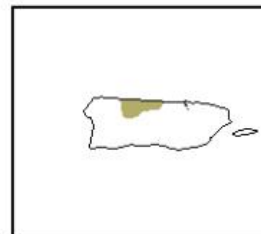
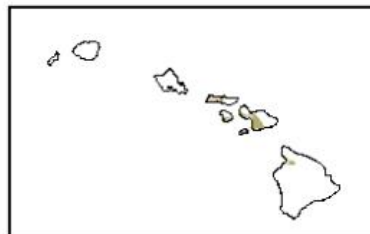


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to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

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

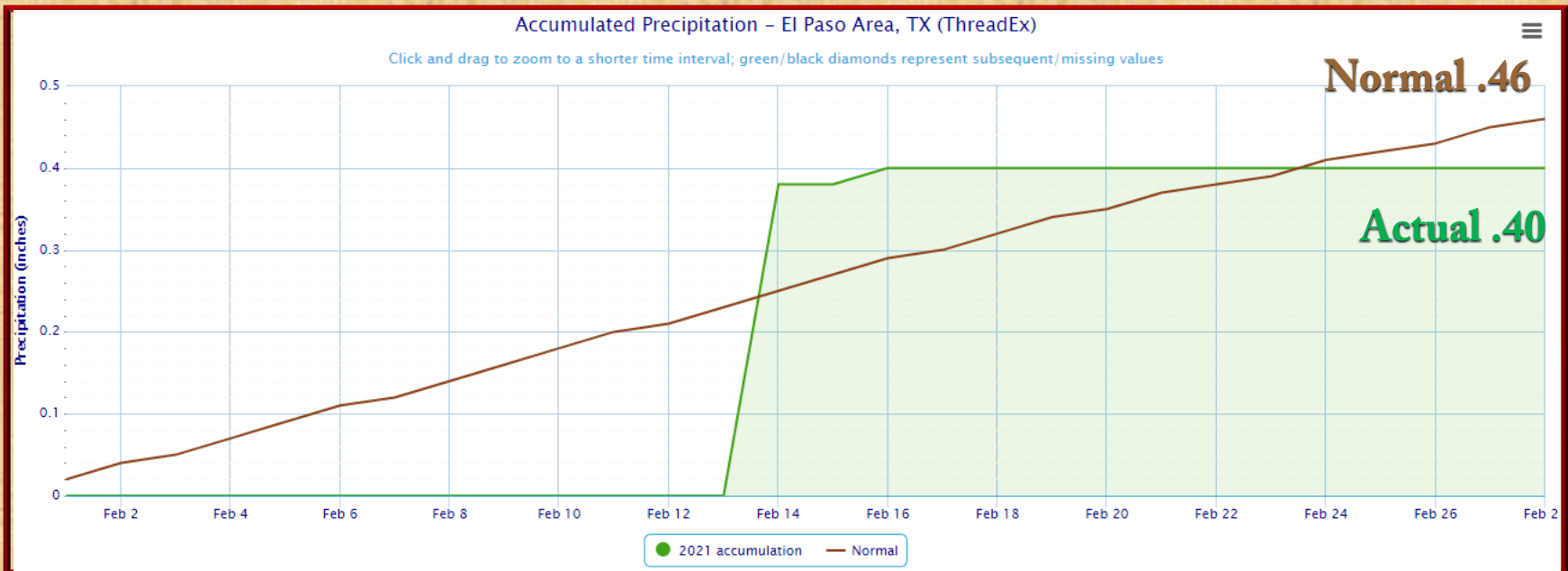
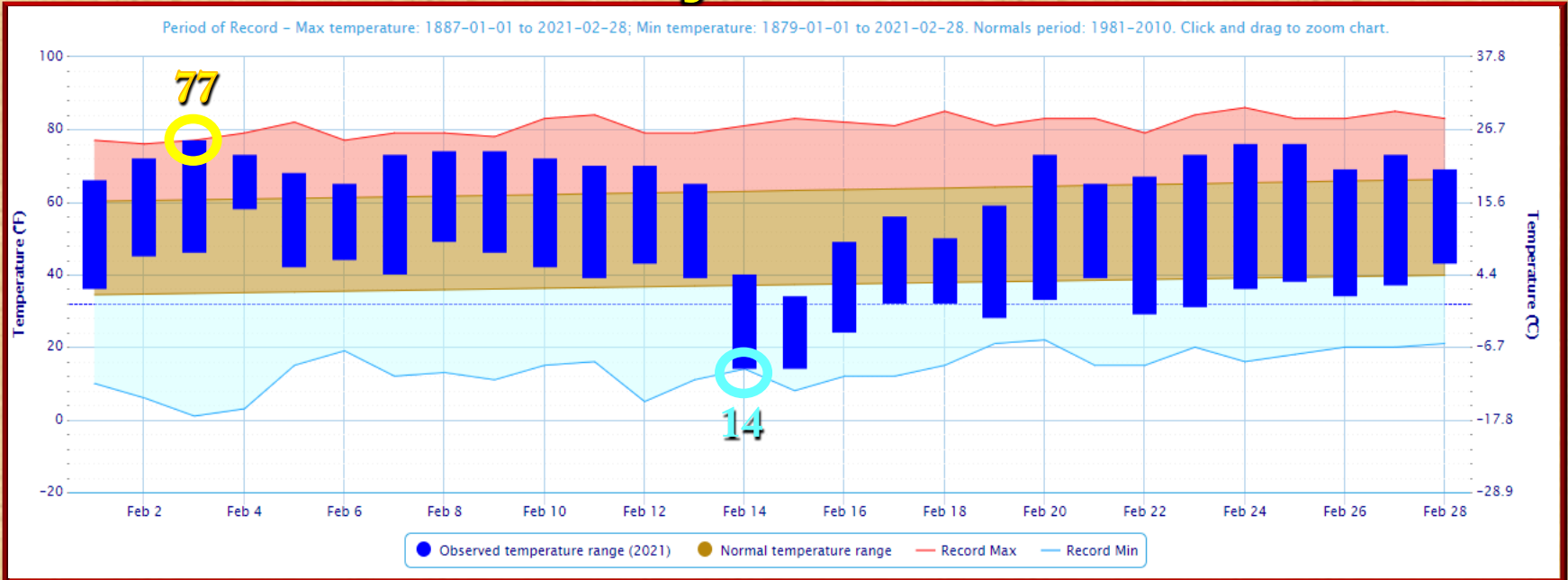
Author:
Richard Tinker
NOAA/NWS/NCEP/Climate Prediction Center



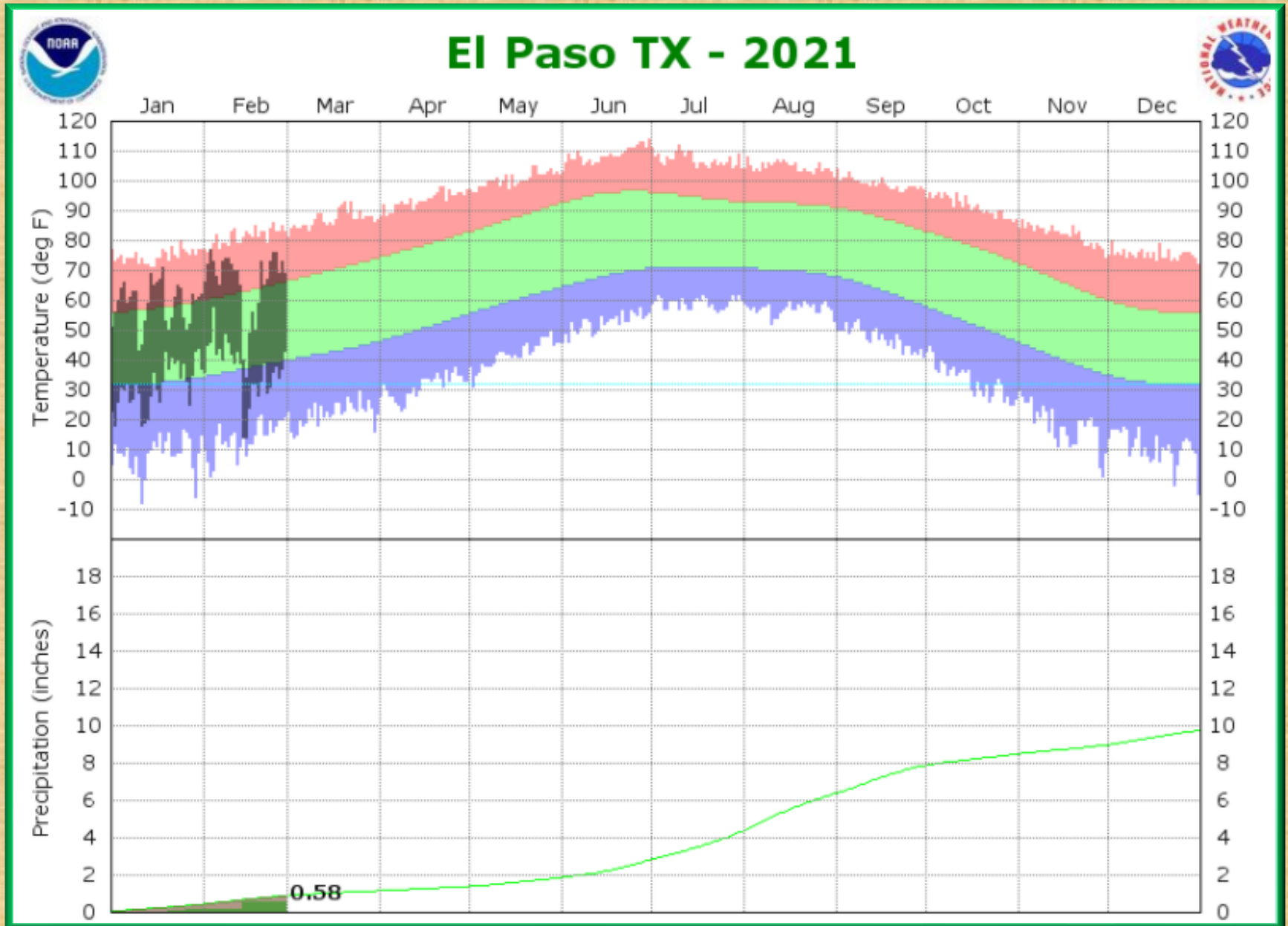
<http://go.usa.gov/3eZ73>

Temperature and precipitation data for February 2021 in El Paso

○ = record



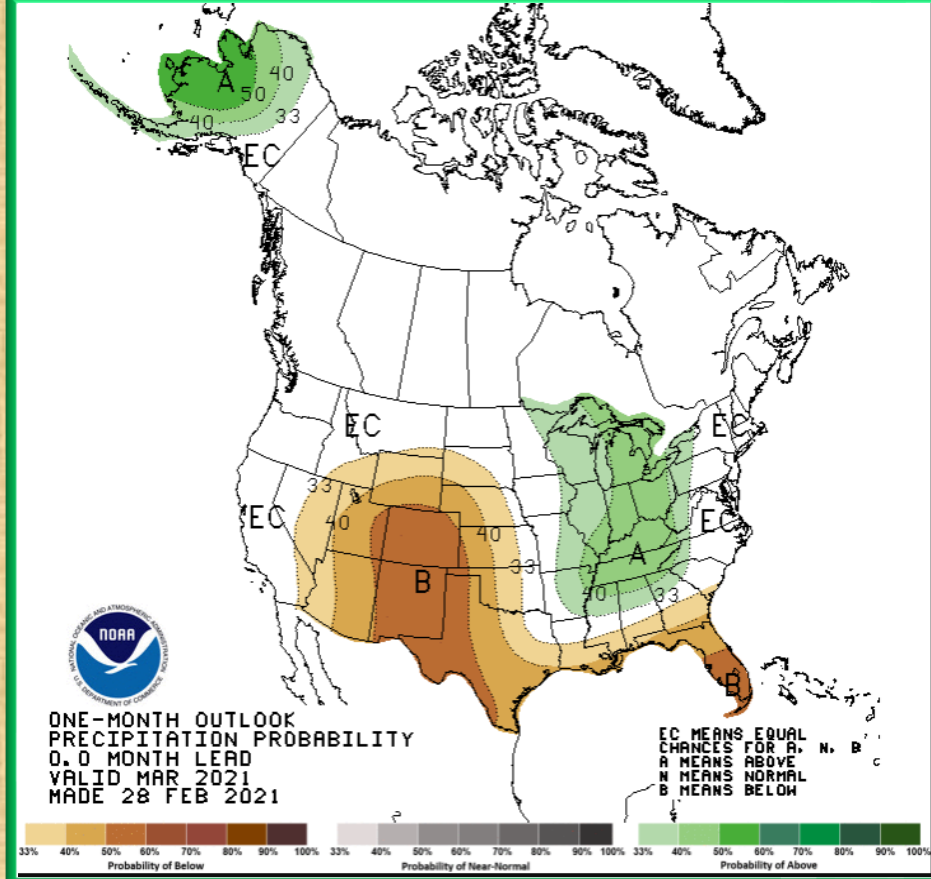
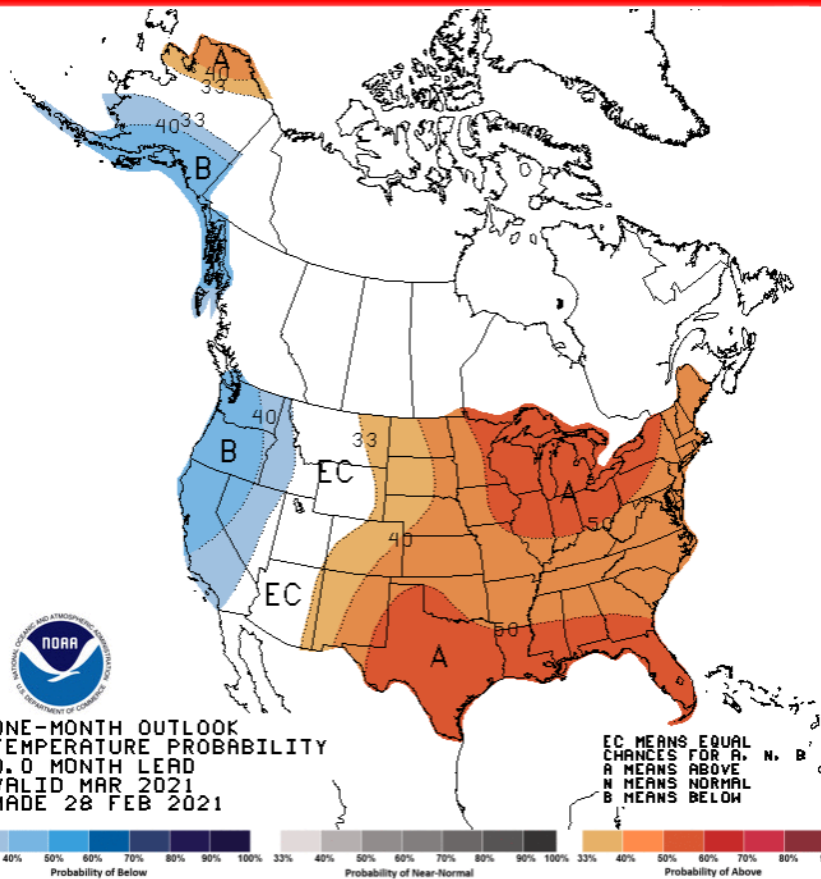
2021: Temperature and Precipitation Data for El Paso



Temperature and precipitation outlook for March 2021

Temperature

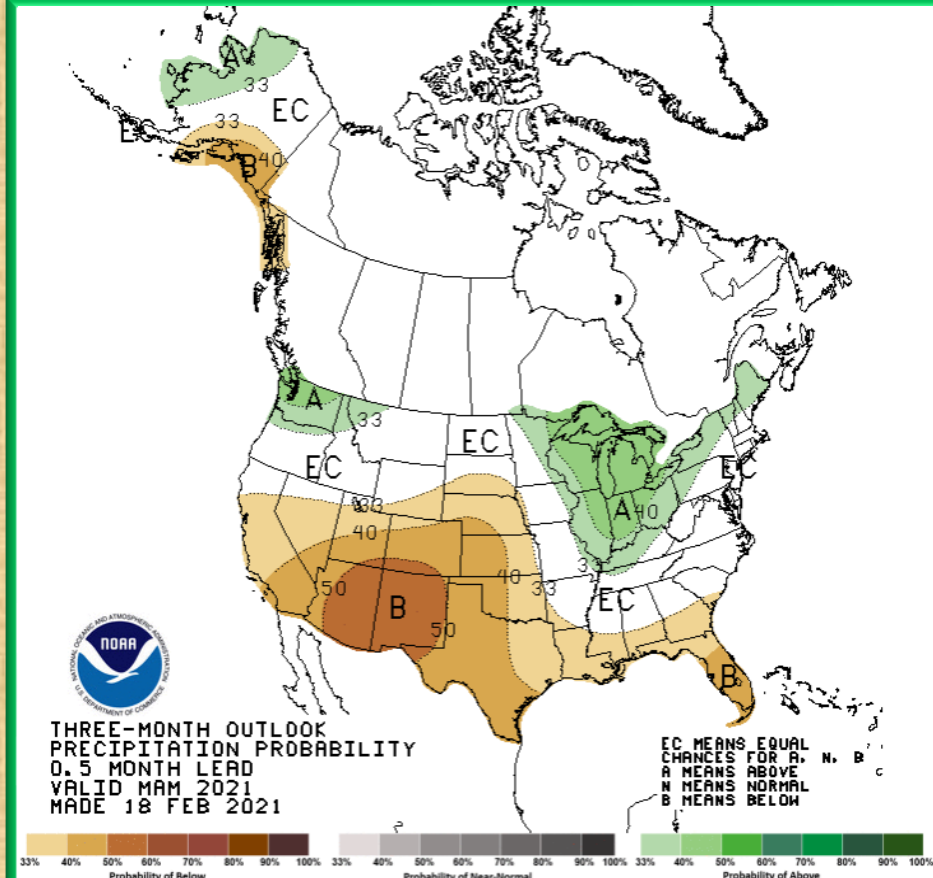
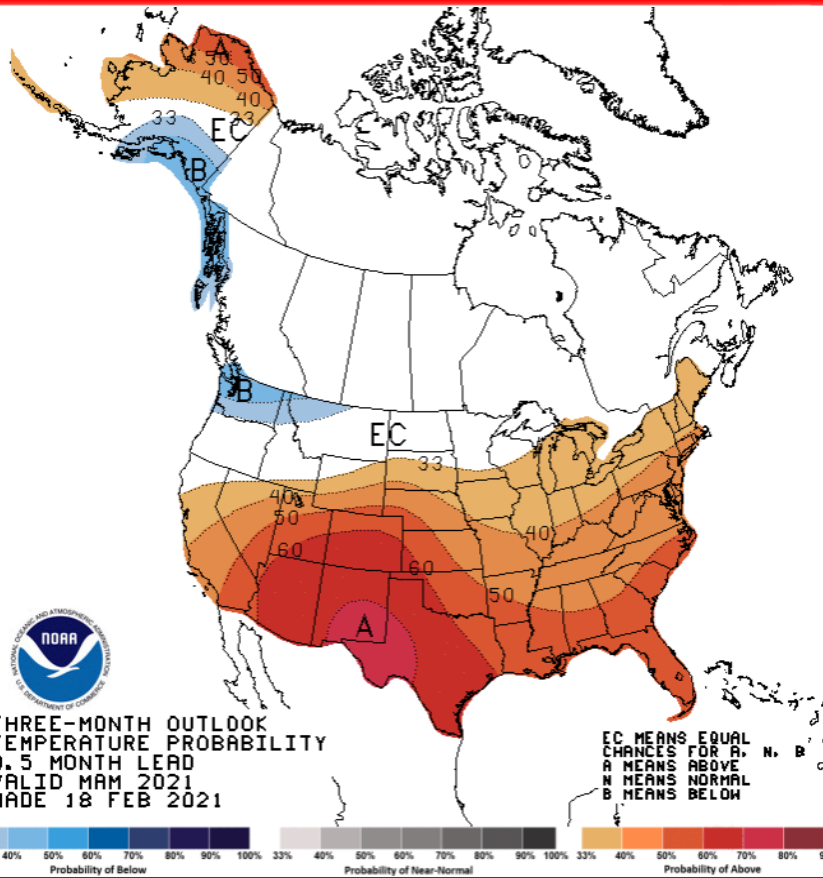
Precipitation



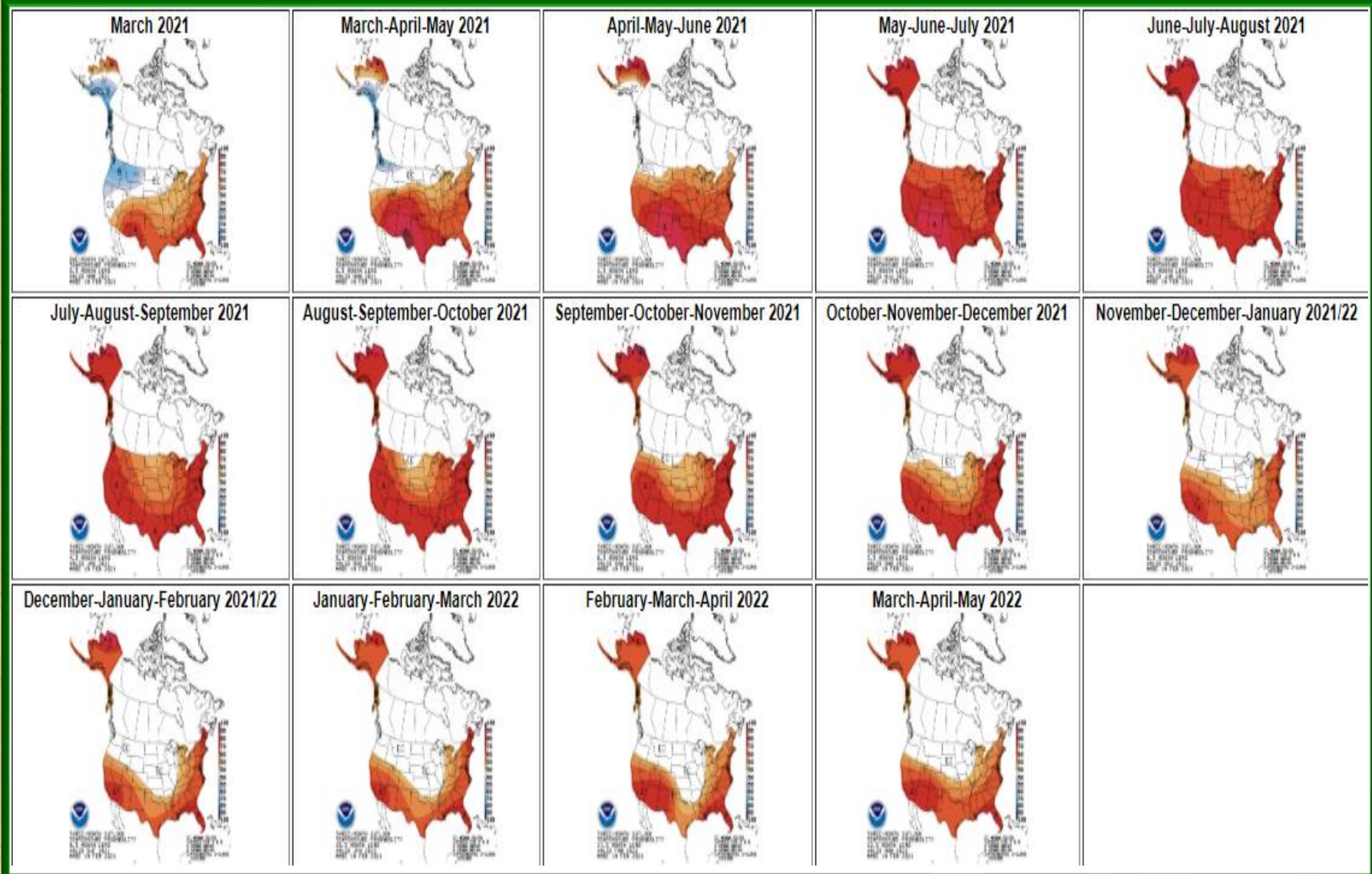
Temperature and precipitation outlook For March-May 2021

Temperature

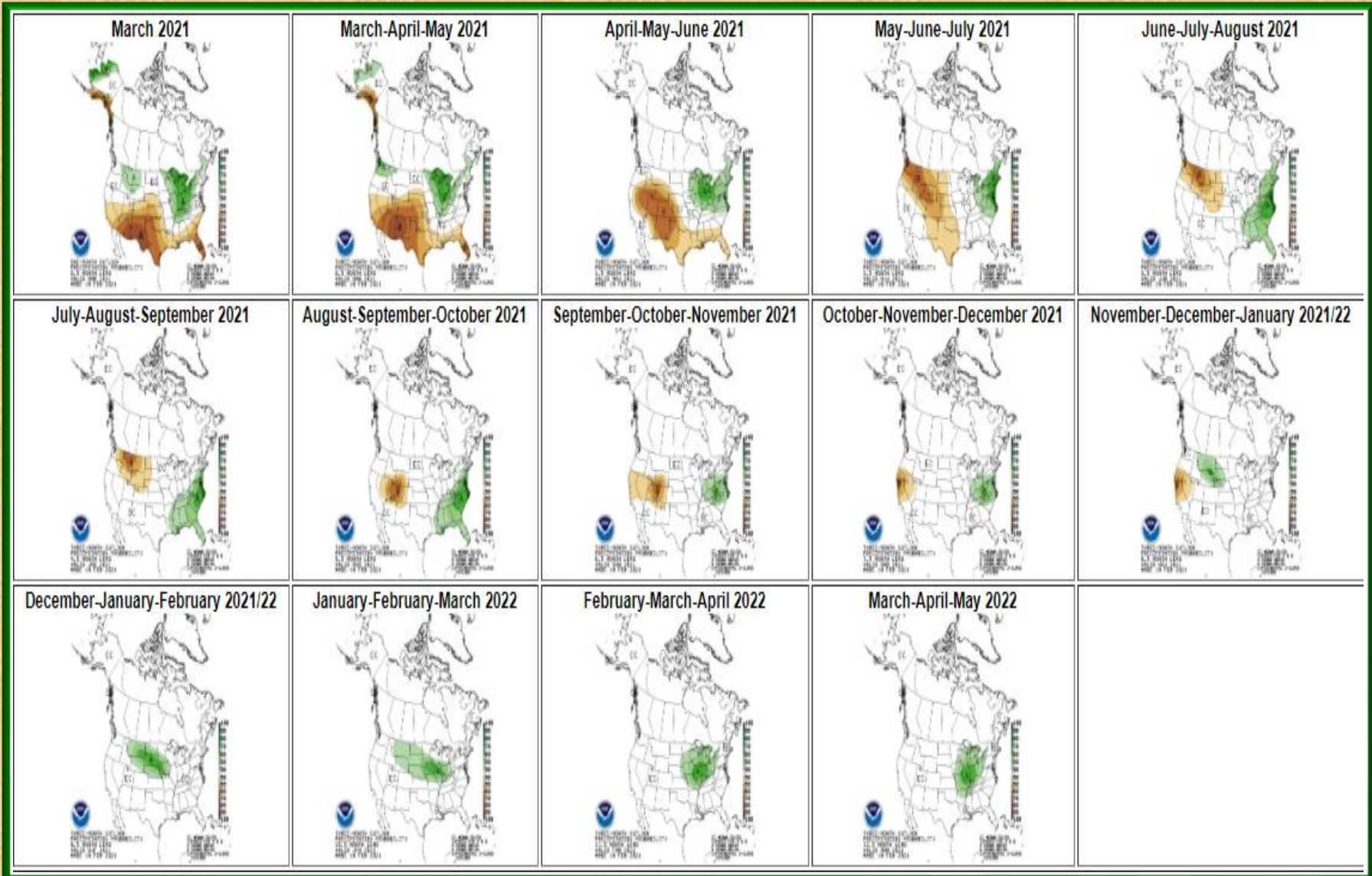
Precipitation



Temperature Outlook Through May 2022



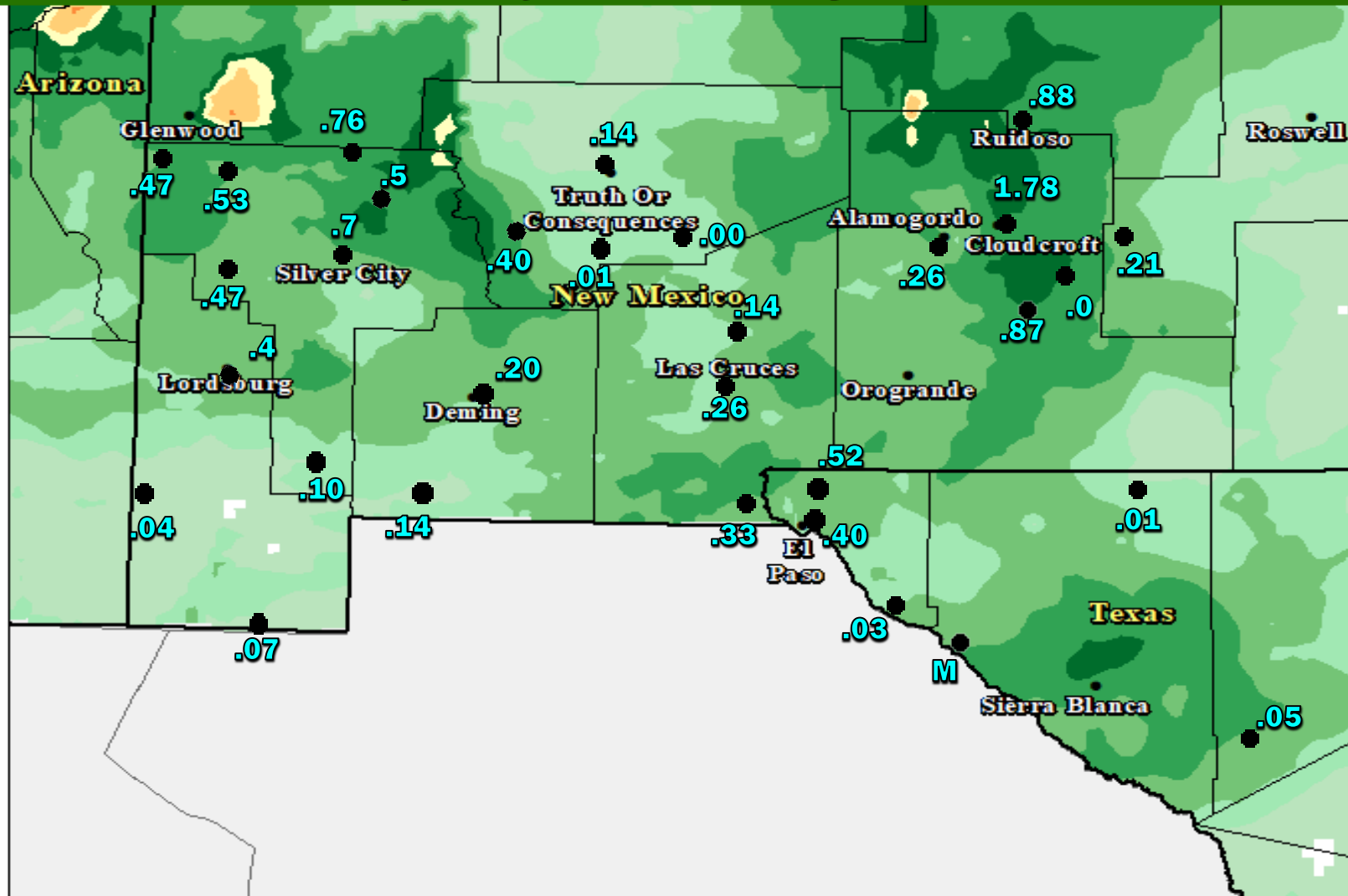
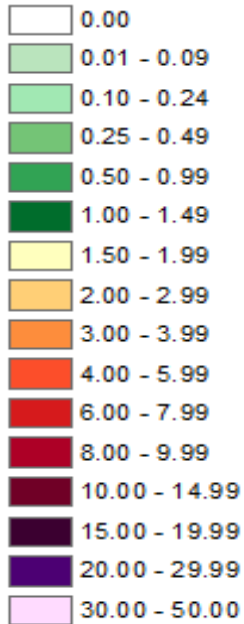
Precipitation Outlook Through May 2022



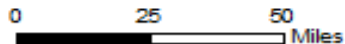
February 2021 radar rainfall estimate with surface rainfall reports

Total Monthly Precipitation - February 2021

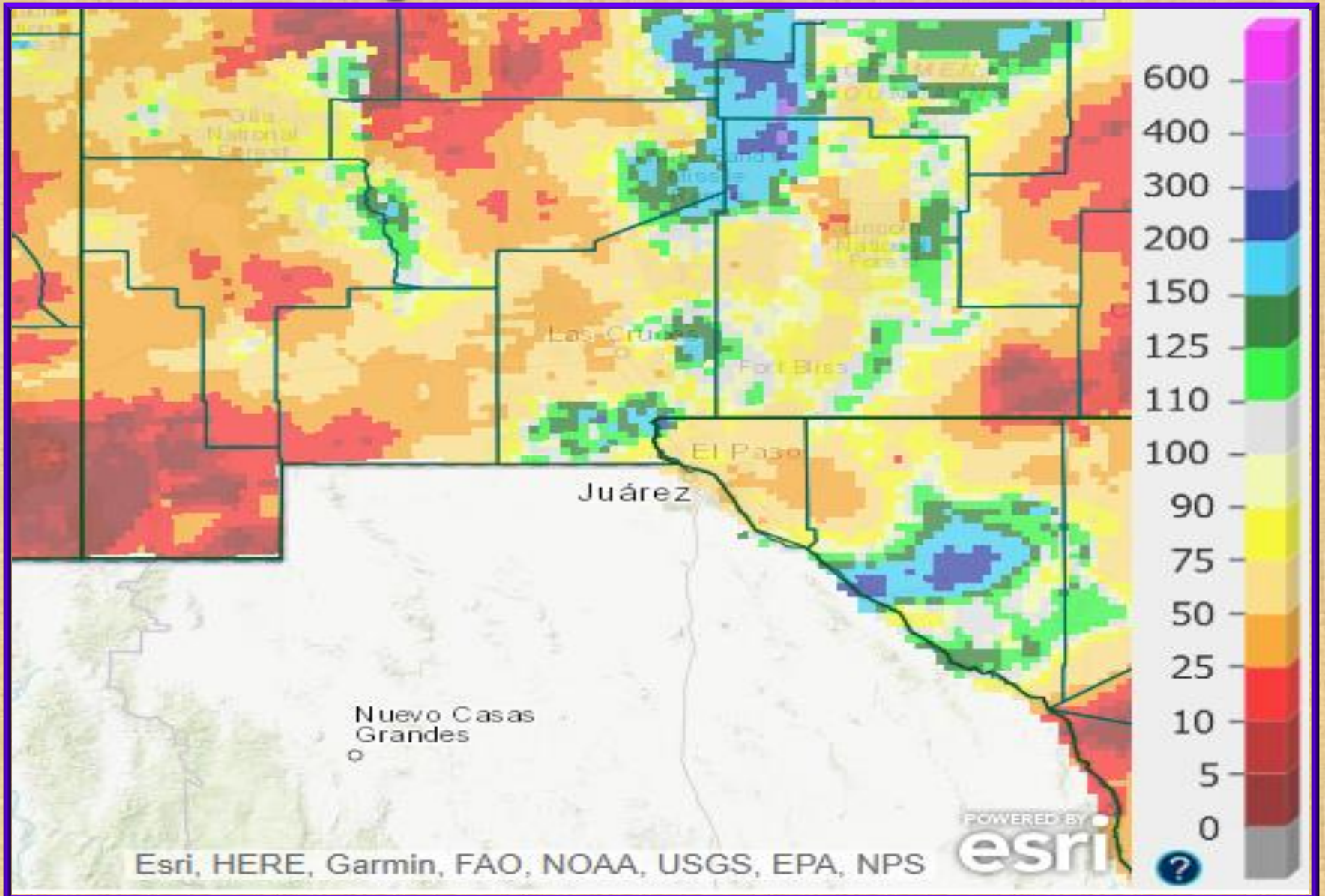
Inches



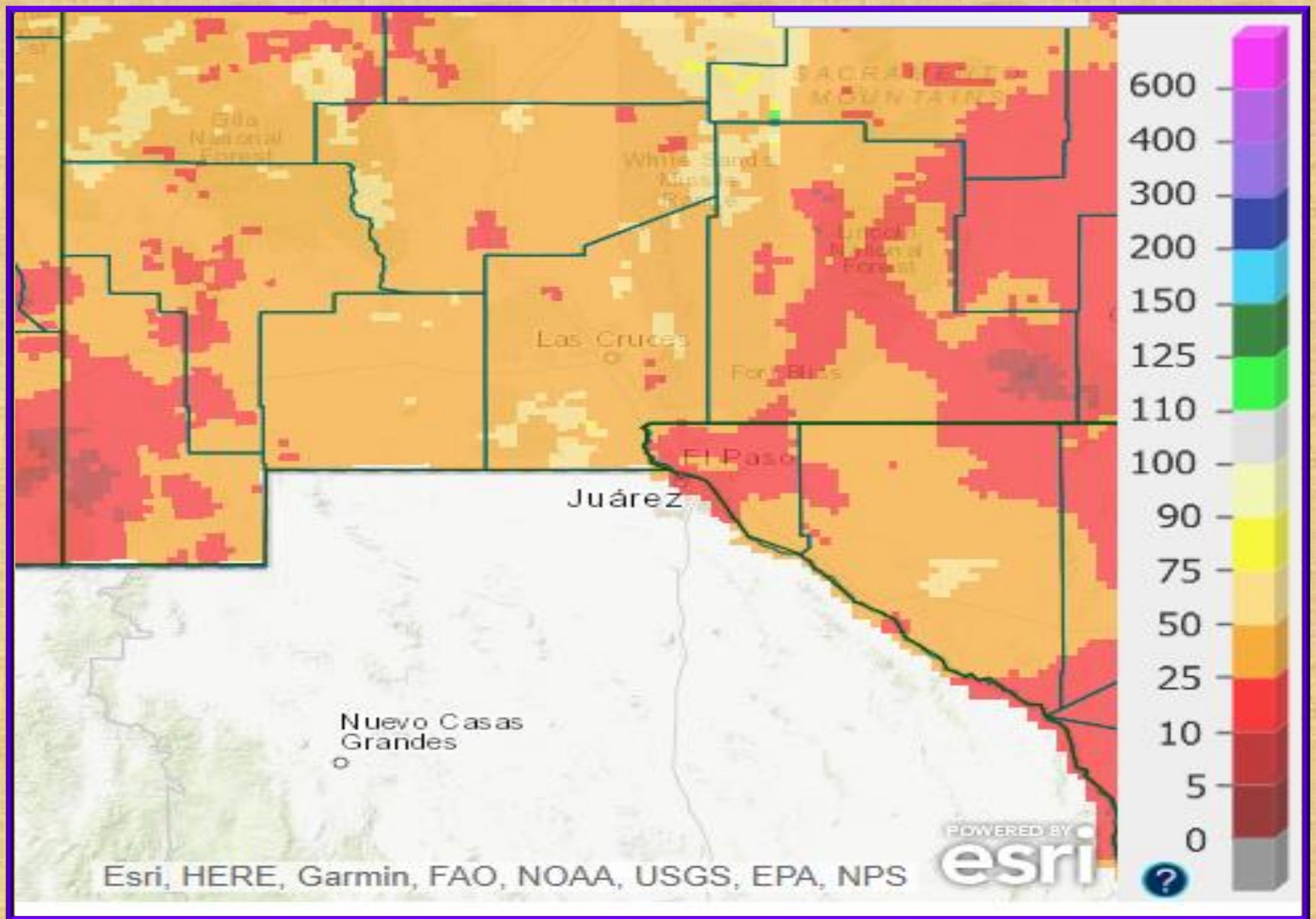
Created by the
NWS Forecast Office
El Paso, TX



February 2021 radar rainfall estimate percent of normal



Radar rainfall estimate percent of normal for the Water Year (Oct 1 – Feb 28)

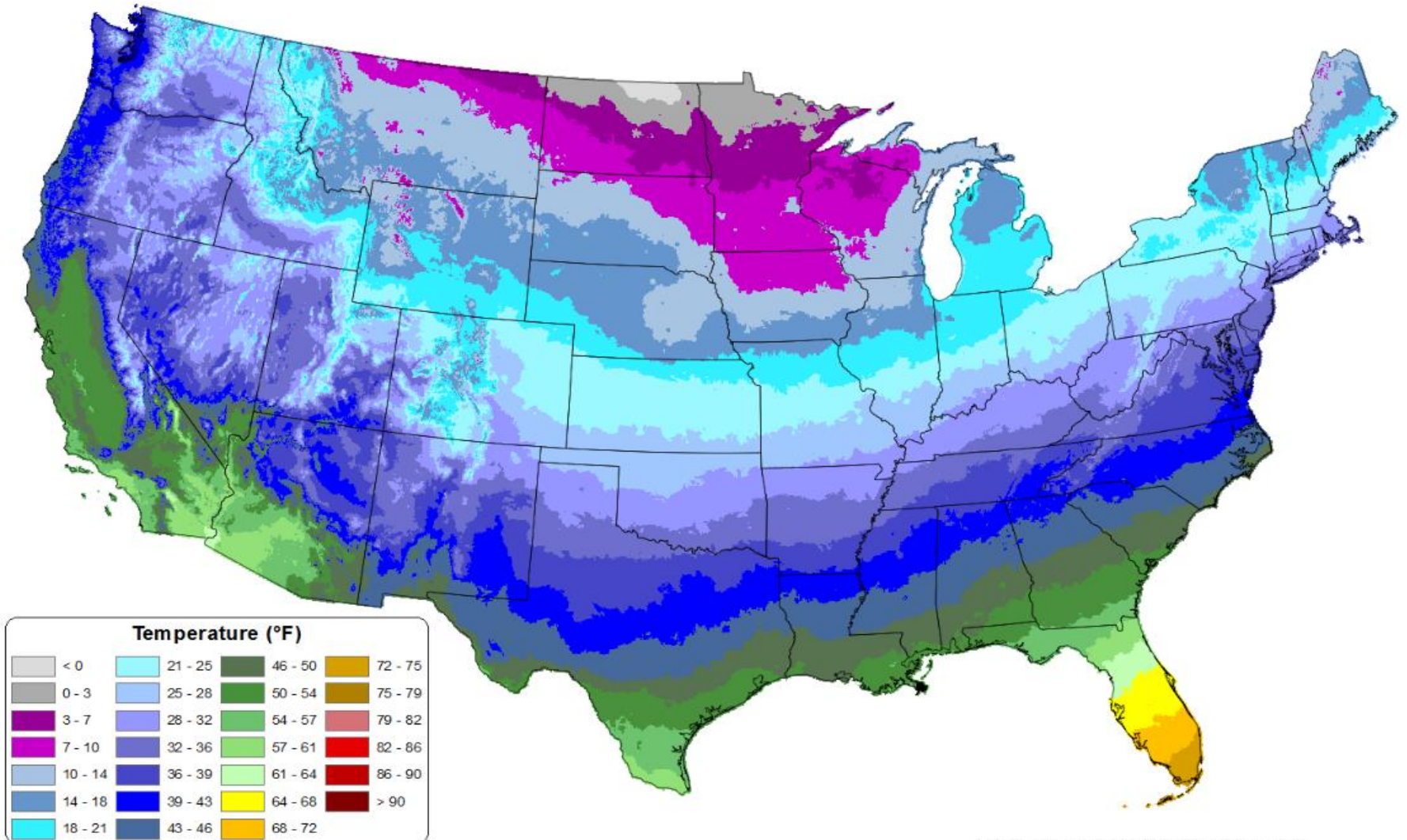


Average Daily Mean Temperature for February 2021

Average Daily Mean Temperature: 01 Feb 2021 - 28 Feb 2021

Period ending 7 AM EST 28 Feb 2021

(Map created 01 Mar 2021)

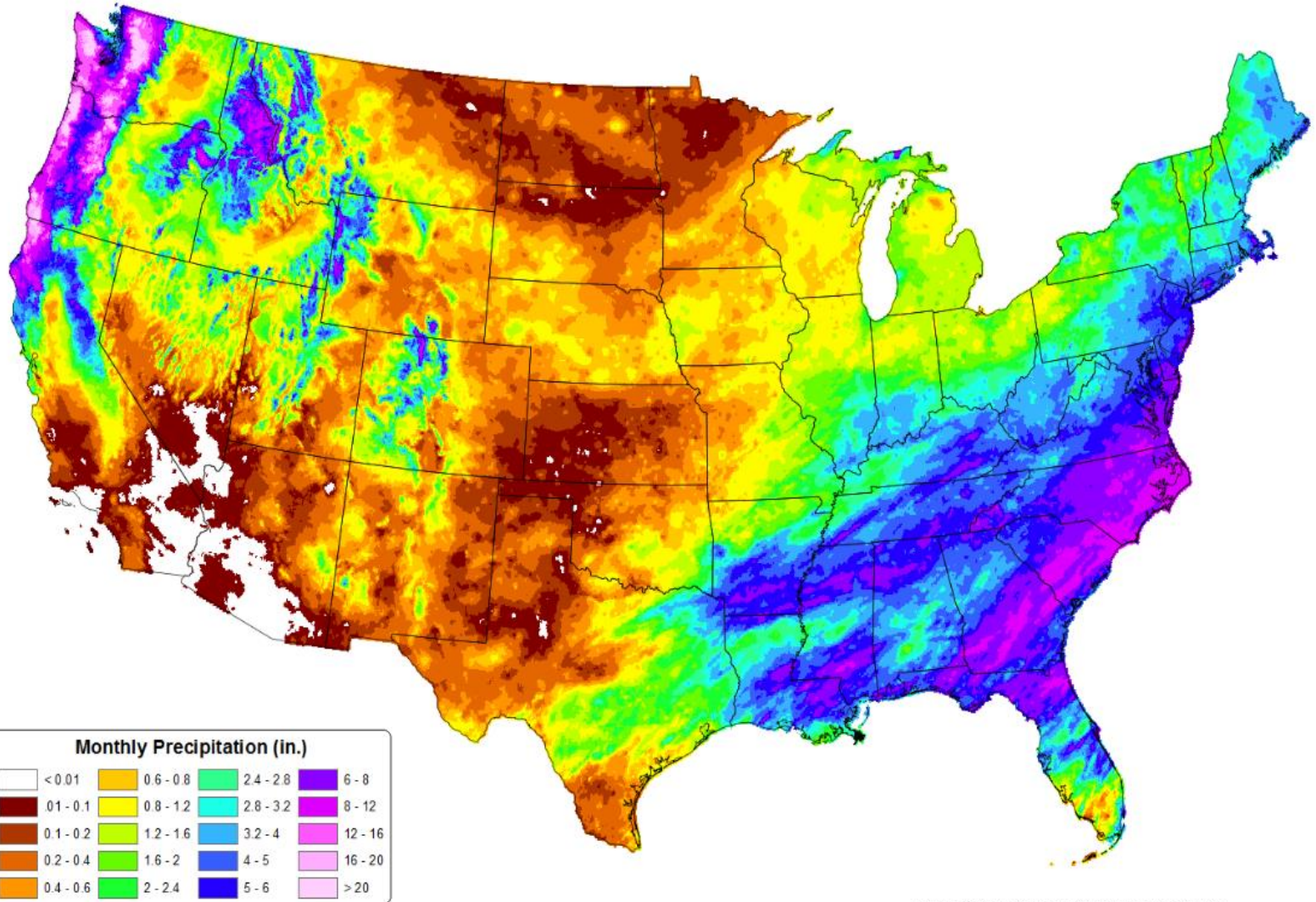


Total Precipitation for February 2021

Total Precipitation: 01 Feb 2021 - 28 Feb 2021

Period ending 7 AM EST 28 Feb 2021

(Map created 01 Mar 2021)



Selected weather reports February 2021

Date/Time	Location (County)	Event
FEBRUARY 13 1115 PM	SAN AUGUSTIN PASS-DONA ANA	48 MPH WIND GUST
FEBRUARY 14 359 AM	REDROCK 12E-GRANT	53 MPH WIND GUST
FEBRUARY 14 230 AM	SILVER CITY ARPT-GRANT	51 MPH WIND GUST
FEBRUARY 14 230 AM	SPACEPORT AMERICA-SIERRA	51 MPH WIND GUST
FEBRUARY 14 1215 PM	EL PASO 6NW-EL PASO	51 MPH WIND GUST
FEBRUARY 14 104 AM	S FRANKLIN PEAK-EL PASO	48 MPH WIND GUST
FEBRUARY 14 440 AM	HACHITA 15SW-HIDALGO	46 MPH WIND GUST
FEBRUARY 14 845 AM	OROGRANDE 4NW-OTERO	45 MPH WIND GUST
FEBRUARY 14 1035 AM	SANTA TERESA 5NW-DONA ANA	44 MPH WIND GUST
FEBRUARY 14 100 AM	ROAD FORKS 6NE-HIDALGO	43 MPH WIND GUST
FEBRUARY 14 445 AM	PINOS ALTOS-GRANT	42 MPH WIND GUST

Selected weather reports February 2021

Date/Time	Location (County)	Event
FEBRUARY 15 700 AM	KINGSTON-SIERRA	9.1 INCHES SNOW
FEBRUARY 15 800 AM	SUNSPOT-OTERO	8.9 INCHES SNOW
FEBRUARY 15 700 AM	HILLSBORO-SIERRA	7.7 INCHES SNOW
FEBRUARY 15 700 AM	CLOUDCROFT-OTERO	7.2 INCHES SNOW
FEBRUARY 15 700 AM	EL PASO 6N-EL PASO	6.2 INCHES SNOW
FEBRUARY 15 700 AM	BAYARD 3N-GRANT	5.7 INCHES SNOW
FEBRUARY 15 700 AM	SANTA TERESA NWS-DON ANA	4.5 INCHES SNOW
FEBRUARY 15 700 AM	SILVER CITY 1S-GRANT	3.8 INCHES SNOW
FEBRUARY 15 800 AM	DEMING 16SE-LUNA	3.6 INCHES SNOW
FEBRUARY 15 700 AM	EL PASO ARPT-EL PASO	3.2 INCHES SNOW
FEBRUARY 15 700 AM	MAYHILL 4SE-OTERO	3.1 INCHES SNOW

Selected weather reports February 2021

Date/Time	Location (County)	Event
FEBRUARY 15 700 AM	GILA HS-GRANT	2.5 INCHES SNOW
FEBRUARY 15 1000 AM	LAS CRUCES 1S-DONA ANA	2.0 INCHES SNOW
FEBRUARY 17 700 AM	CLOUDCROFT 2SW-OTERO	11.0 INCHES SNOW
FEBRUARY 17 700 AM	SUNSPOT-OTERO	10.4 INCHES SNOW
FEBRUARY 16 1200 PM	SACRAMENTO-OTERO	7.0 INCHES SNOW
FEBRUARY 17 700 AM	BAYARD 3N-GRANT	7.0 INCHES SNOW
FEBRUARY 17 700 AM	SILVER CITY 4N-GRANT	5.5 INCHES SNOW
FEBRUARY 17 700 AM	HANOVER 9NE	3.5 INCHES SNOW
FEBRUARY 17 800 AM	TYRONE 3SW-GRANT	2.5 INCHES SNOW
FEBRUARY 17 700 AM	HILLSBORO-SIERRA	2.5 INCHES SNOW

Selected weather reports February 2021

Date/Time	Location (County)	Event
FEBRUARY 20 1045 PM	SAN AUGUSTIN PASS-DONA ANA	68 MPH WIND GUST
FEBRUARY 20 941 PM	MESCALERO-OTERO	56 MPH WIND GUST
FEBRUARY 20 1019 PM	EL PASO 6NE-EL PASO	55 MPH WIND GUST
FEBRUARY 20 1104 PM	CLOUDCROFT-OTERO	53 MPH WIND GUST
FEBRUARY 20 1035 PM	WSMR MAIN POST-DONA ANA	51 MPH WIND GUST
FEBRUARY 20 1040 PM	HACHITA 15SW-HIDALGO	50 MPH WIND GUST
FEBRUARY 20 1043 PM	HIGH ROLLS-OTERO	50 MPH WIND GUST
FEBRUARY 20 340 PM	ROAD FORKS 4NE-HIDALGO	47 MPH WIND GUST
FEBRUARY 20 315 PM	SUNSPOT-OTERO	46 MPH WIND GUST
FEBRUARY 20 1000 PM	CHAPARRAL 2E-DONA ANA	44 MPH WIND GUST
FEBRUARY 20 440 PM	SPACEPORT AMERICA-SIERRA	43 MPH WIND GUST

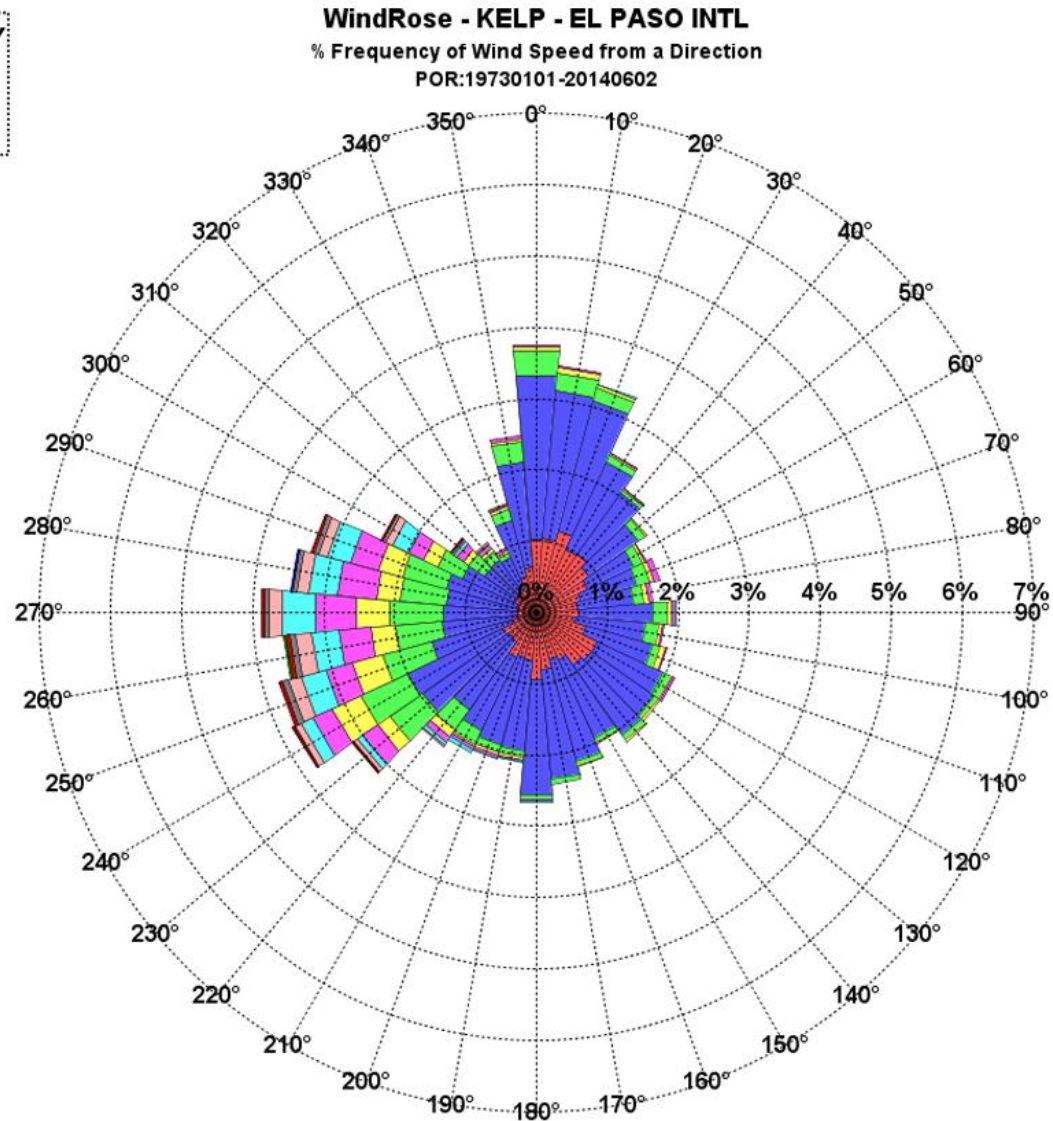
Selected weather reports February 2021

Date/Time	Location (County)	Event
FEBRUARY 28 1125 PM	SUNSPOT-OTERO	53 MPH WIND GUST
FEBRUARY 28 1125 PM	TULAROSA 9W-OTERO	49 MPH WIND GUST
MARCH 1 353 AM	DELL CITY 15NE-HUDSPETH	47 MPH WIND GUST
FEBRUARY 20 1121 PM	ALAMOGORDO 2SE-OTERO	44 MPH WIND GUST
FEBRUARY 20 1100 PM	SPACEPORT AMERICA-SIERRA	43 MPH WIND GUST
FEBRUARY 20 1141 PM	MESCALERO-OTERO	42 MPH WIND GUST
FEBRUARY 20 1137 PM	HILLSBORO-SIERRA	41 MPH WIND GUST
MARCH 1 1230 AM	FAYWOOD-GRANT	41 MPH WIND GUST

Special Features

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

Month: FEBRUARY
Calm: 10.51%
Variable: 1.83%



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	

**NWS DOPPLER RADAR
WATCHING THE MONSOON SKIES
OVER EL PASO 24/7**

