

December 2021 Weather Digest



December 2021 Weather Summary

This December was unlike almost any other December; the month turned out to be one of the warmest Decembers on record. In El Paso the month was the second warmest December on record. Many other sites recorded their warmest December on record. The month was also bone dry through Christmas and headed into the new year. Fortunately a large storm off the Pacific swept across the area, dropping moderate amounts of lowland rain and heavy mountain snows. The storm moved in on the 30th with some light rain and on the 31st, with the storm in full swing, many desert sites totaled from one-half inch to three-quarters of an inch. The snow started in the mountains on New Years Eve, with several inches, and then finished on the first day of January, with many mountain sites reporting a storm total of six to twelve inches. The last two days of the month brought monthly rainfall totals to near normal or even a bit above normal.

There were a few wind storms in the dry portion of the month, with many sites reporting 50 to 70 mph winds on the 10th and 24th, compliments of fast moving Pacific systems moving through. The warmth was the big story, with many sites reporting mean temperatures 5 to 8 degrees above normal.

December 2021 Weather Summary, cont'd

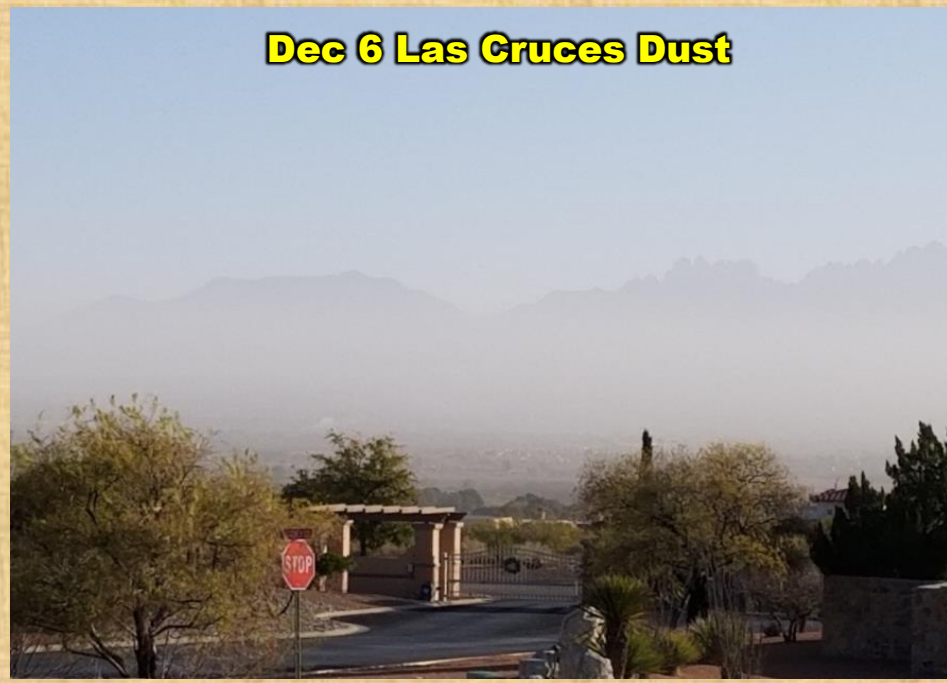
On the precipitation side, as mentioned before, the last two days of the month saved what could have otherwise been a dry disaster. The counties along the international border from Hidalgo across Dona Ana and El Paso to Hudspeth received about 100 to 200 percent of normal. Otero and Grant Counties ended up near normal, while Sierra County turned out to be the dry county, only receiving about 10 to 50 percent of normal.

Looking ahead to January, temperatures and daylight begin to noticeably increase. At El Paso the average high temperature on the 1st is 57, warming to 61 degrees on the 31st. We also begin a slow descent into drier and drier months. El Paso averages .39 of an inch of liquid for the month. The length of daylight also starts picking up speed. Daylight at El Paso on the 1st is 10 hours and 7 minutes, growing to 10 hours and 40 minutes on the last day of January. Our full moon for the month occurs on the 17th, while the new moon occurs on the 31st. For fans of eclipses, unfortunately there are no Lunar or Solar eclipses in January.

Dec 5 Moon and Planets



Dec 6 Las Cruces Dust



Dec 7 Las Cruces Dust



Dec 18 Snow at Las Uvas



December 27 snow at Cloudcroft



December 31 Heavy Snow at Cloudcroft

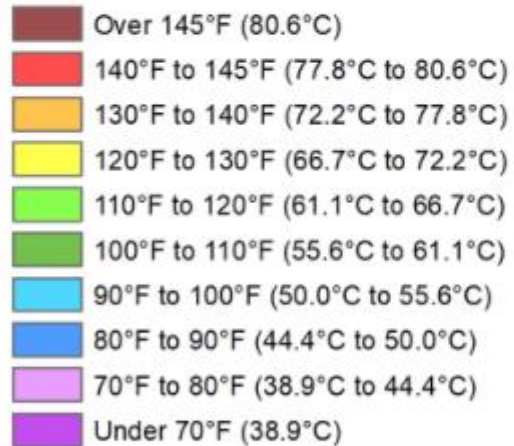


New Years Eve at Ski Apache



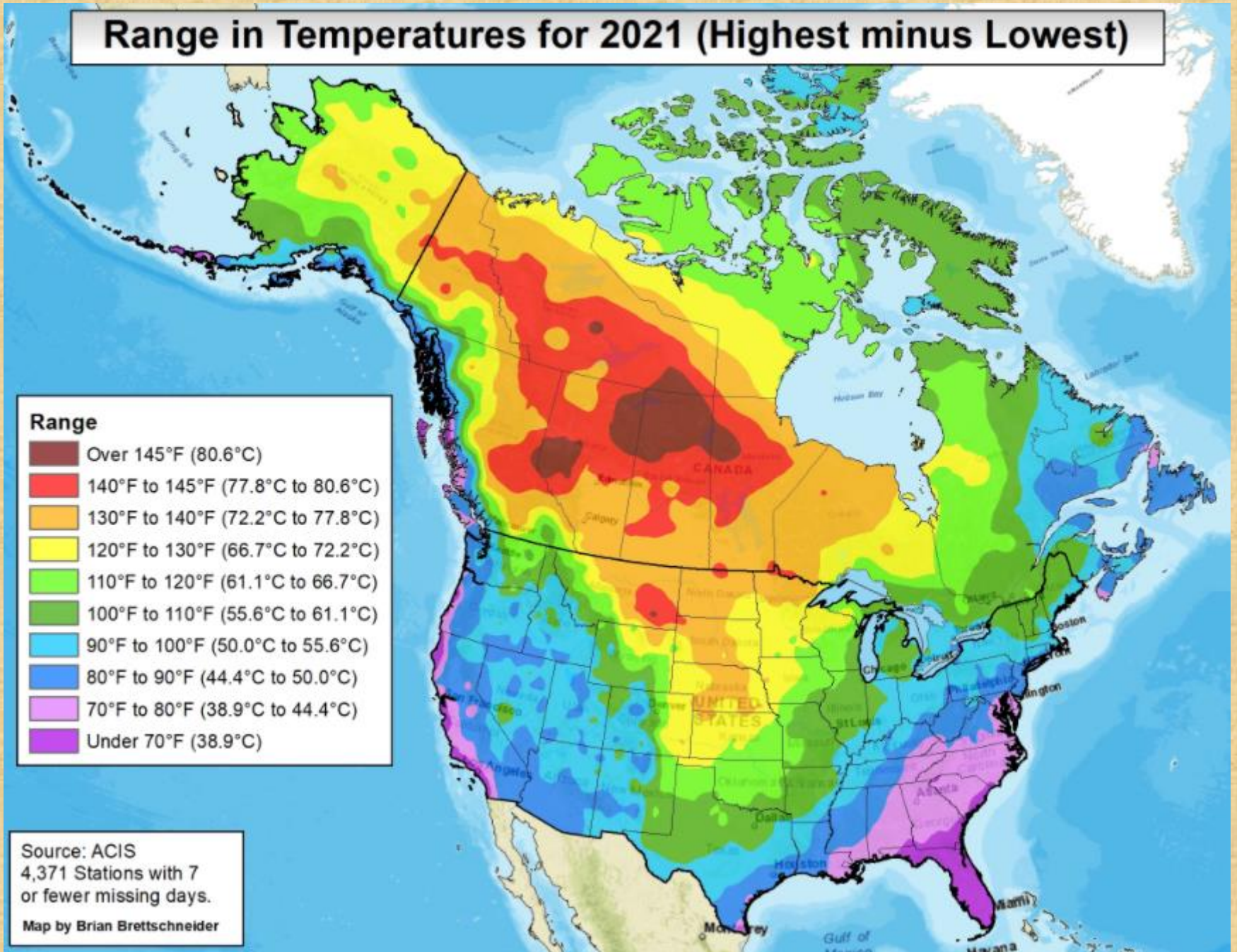
Range in Temperatures for 2021 (Highest minus Lowest)

Range



Source: ACIS
4,371 Stations with 7
or fewer missing days.

Map by Brian Brettschneider



ENSO Alert System Status: La Niña Advisory in Affect

ENSO Alert System

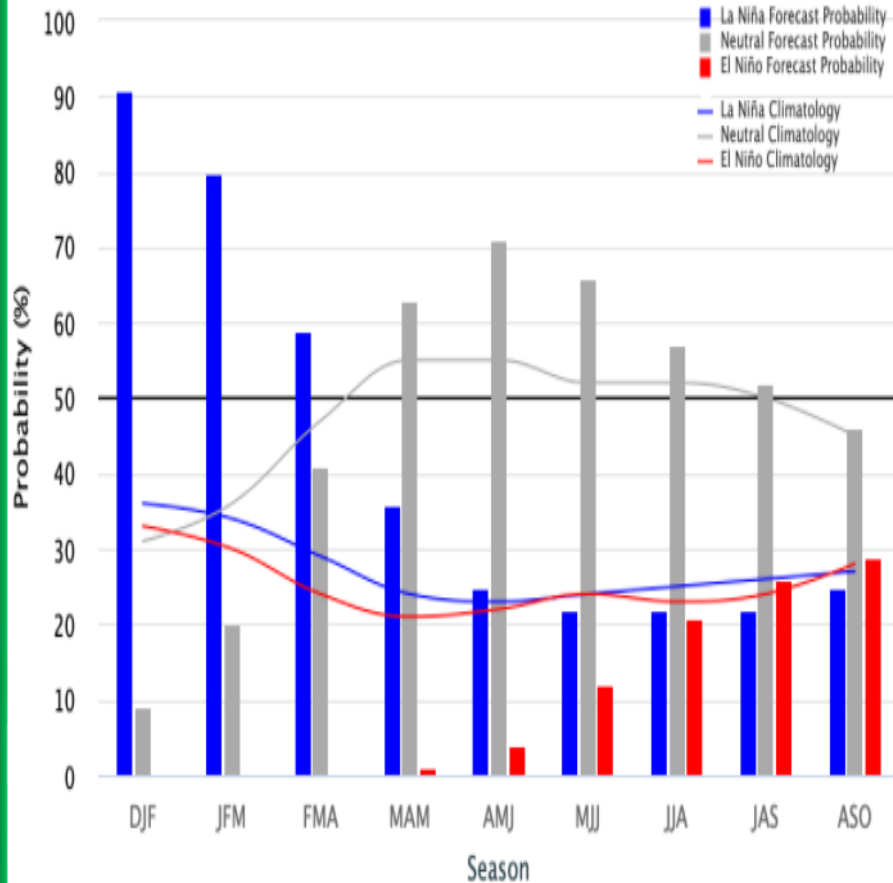
- **El Niño or La Niña Watch:** Issued when conditions are favorable for the development of El Niño or La Niña conditions in the next six months.
- **El Niño or La Niña Advisory:** Issued when El Niño or La Niña conditions are observed and expected to continue.

ENSO Forecast

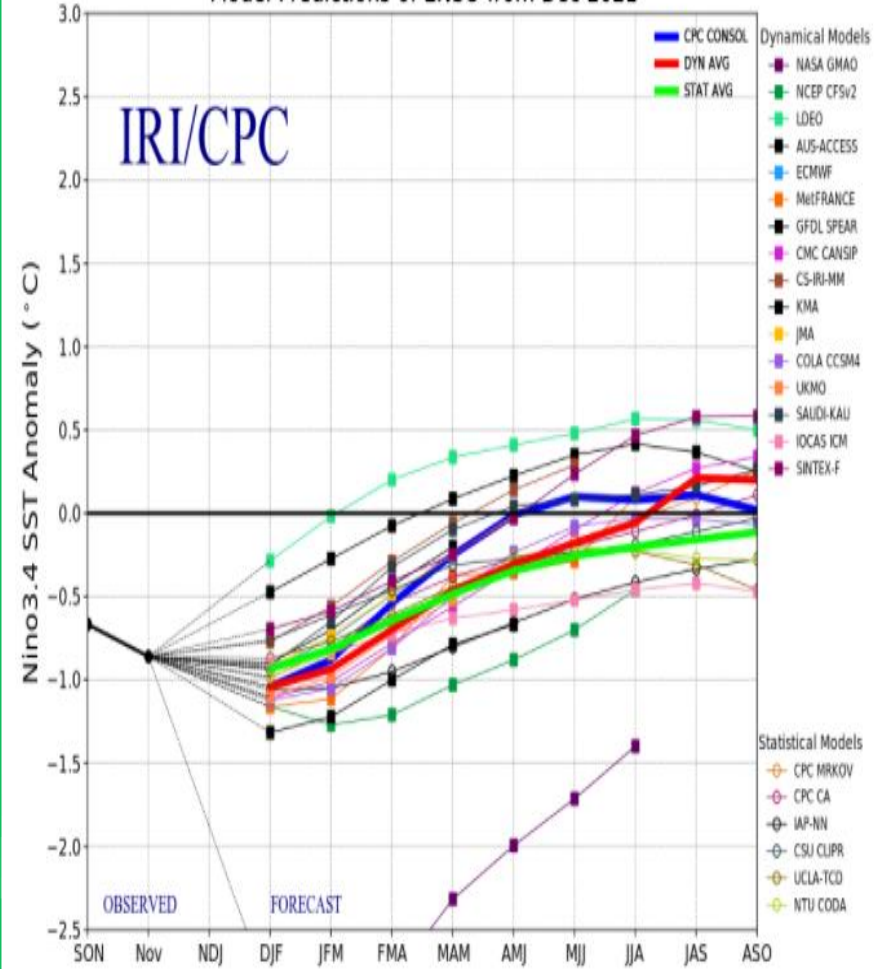
ENSO is in La Niña status, where it is expected to stay for much of the winter ahead.

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

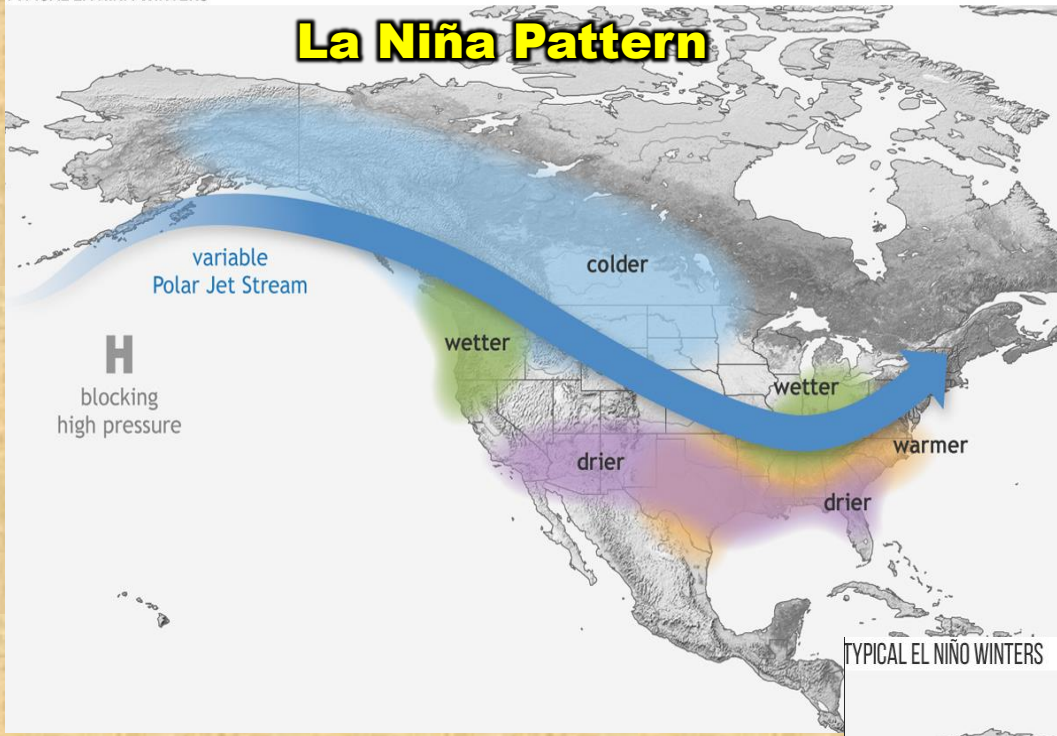
ENSO state based on NINO3.4 SST Anomaly
Neutral ENSO: -0.5°C to 0.5°C



Model Predictions of ENSO from Dec 2021

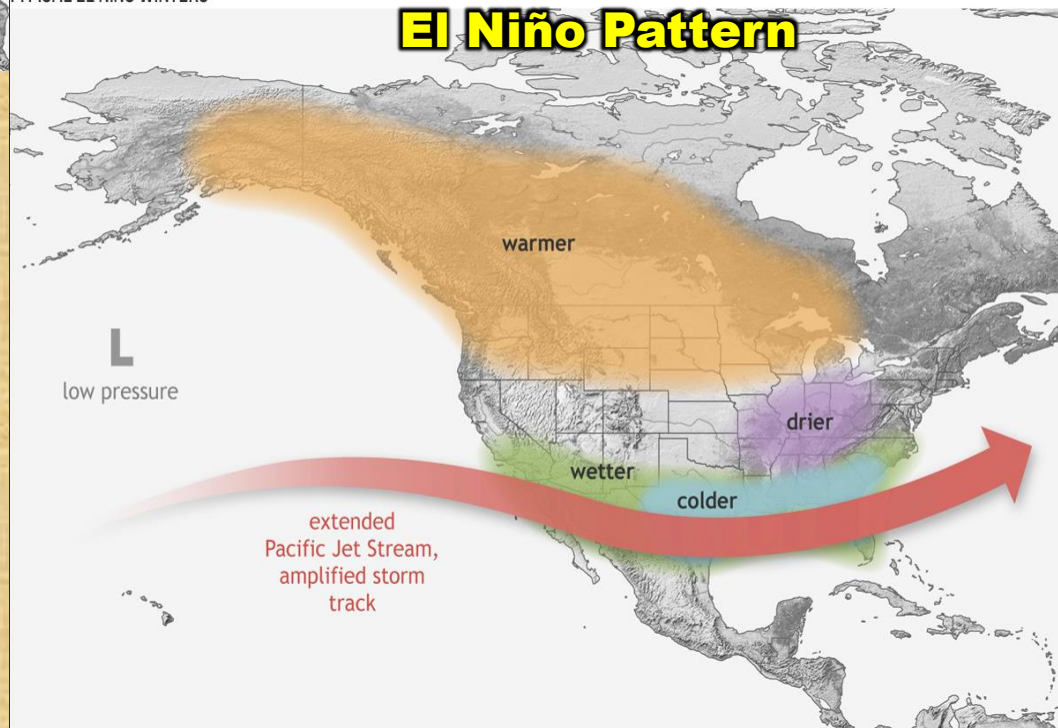


La Niña Pattern



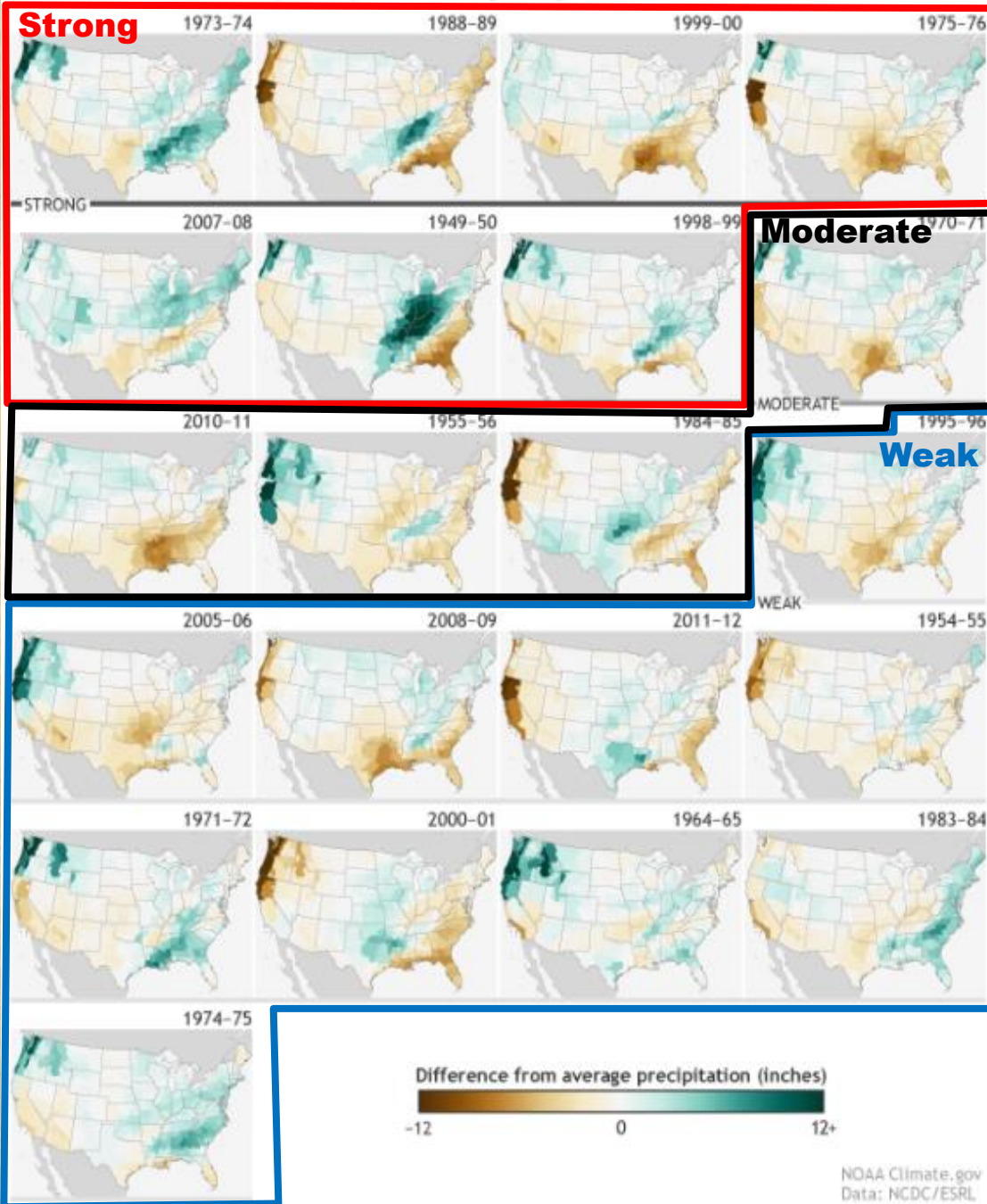
With a La Niña pattern, a ridge of high pressure tends to build off the west coast of the U.S., blocking most of our Pacific winter storm systems. These storms tend to end up moving across the northern Plains and down to the southeastern part of the country. Of course it is important to remember that 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



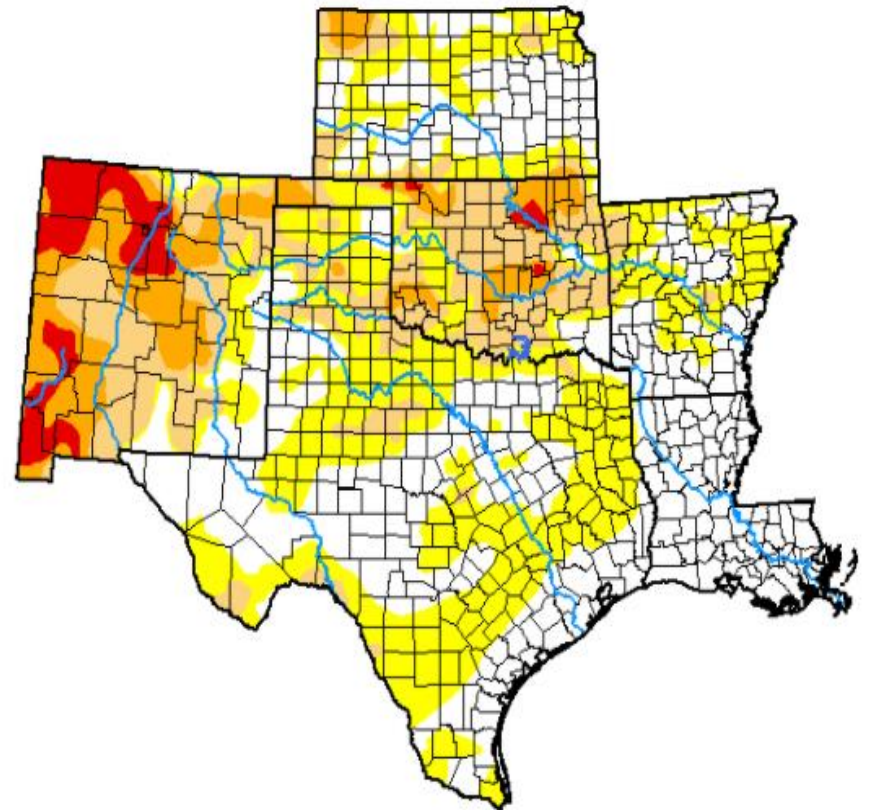
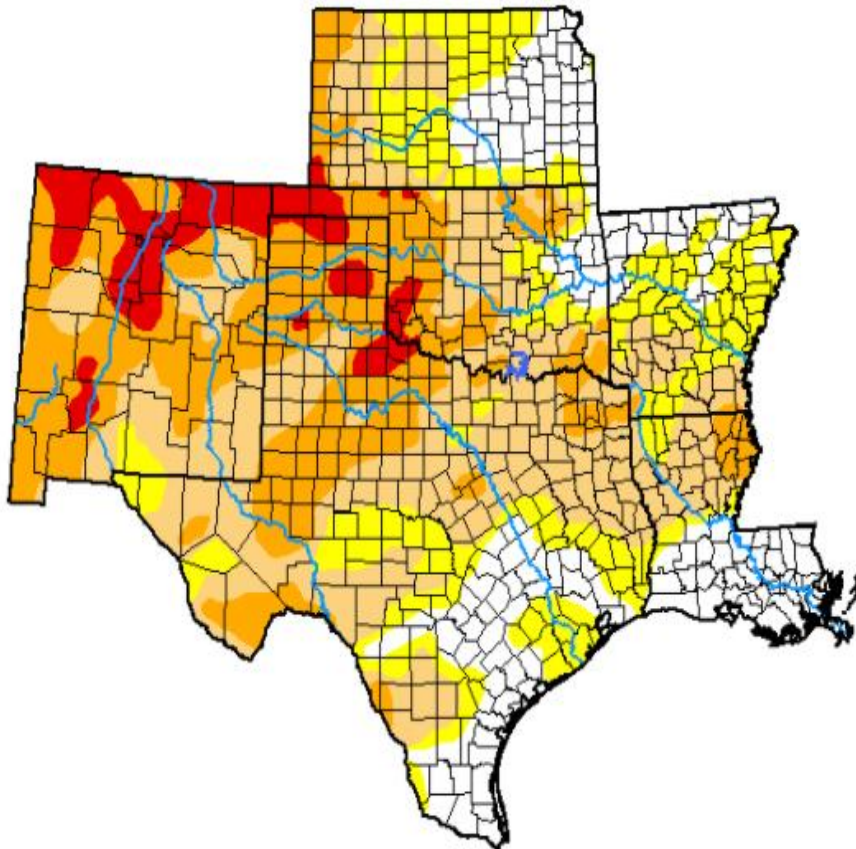
Examples of the numerous La Niña winters since 1950. These maps depict the departure from normal precipitation amounts for a winter.

Current drought conditions and 3 month change

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

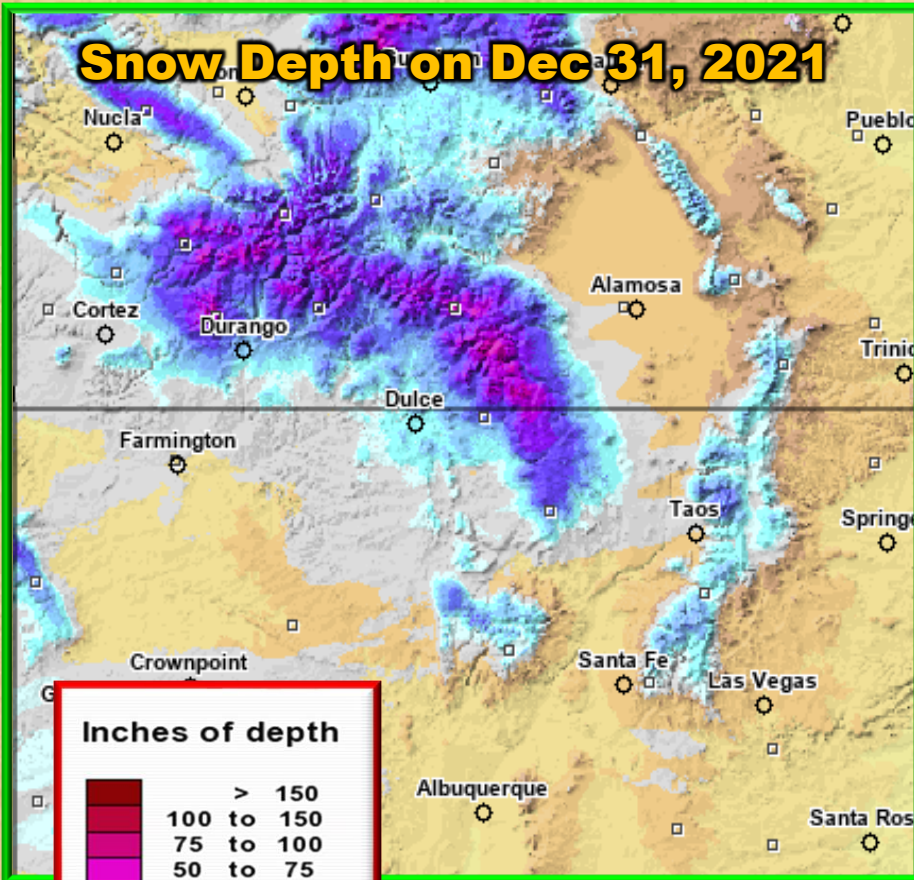
December 21, 2021

September 28, 2021

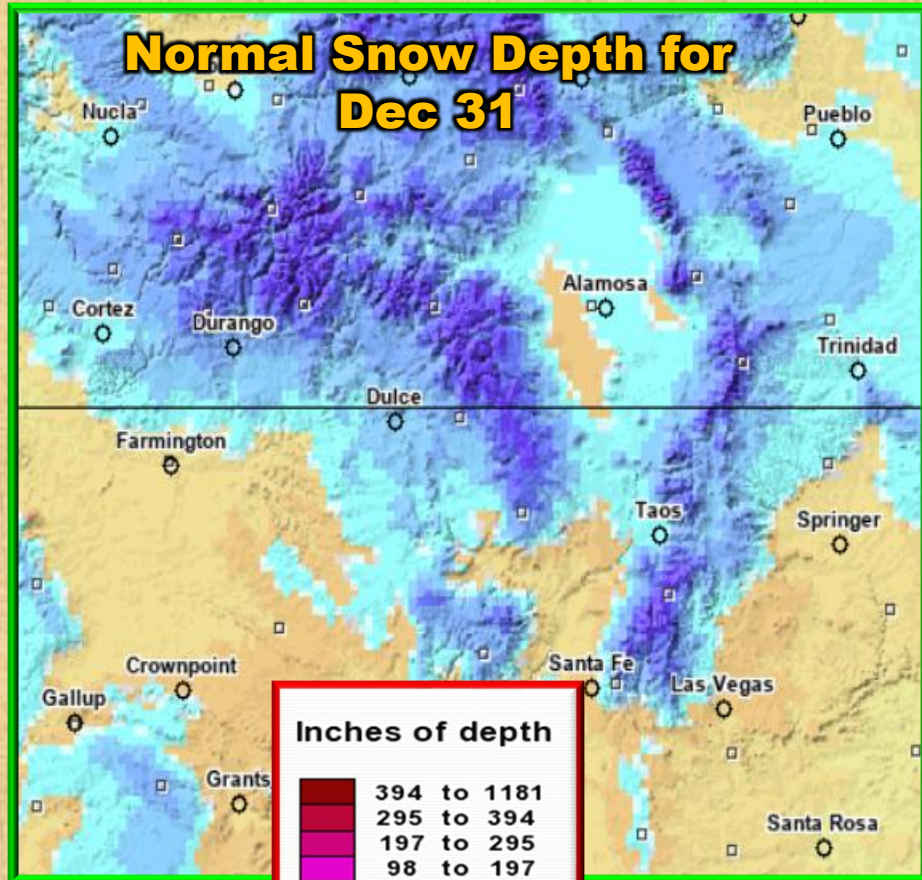


Snow Data Upper Rio Grand Basin as of Dec 31, 2021

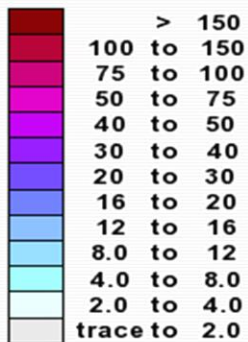
Snow Depth on Dec 31, 2021



Normal Snow Depth for Dec 31

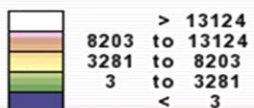


Inches of depth

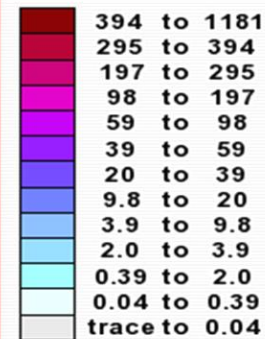


Not Estimated

Elevation in feet

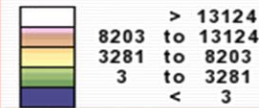


Inches of depth



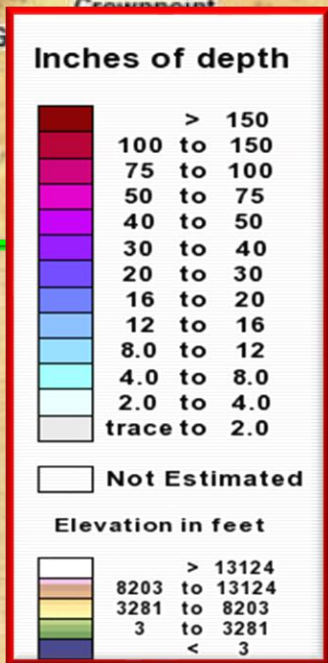
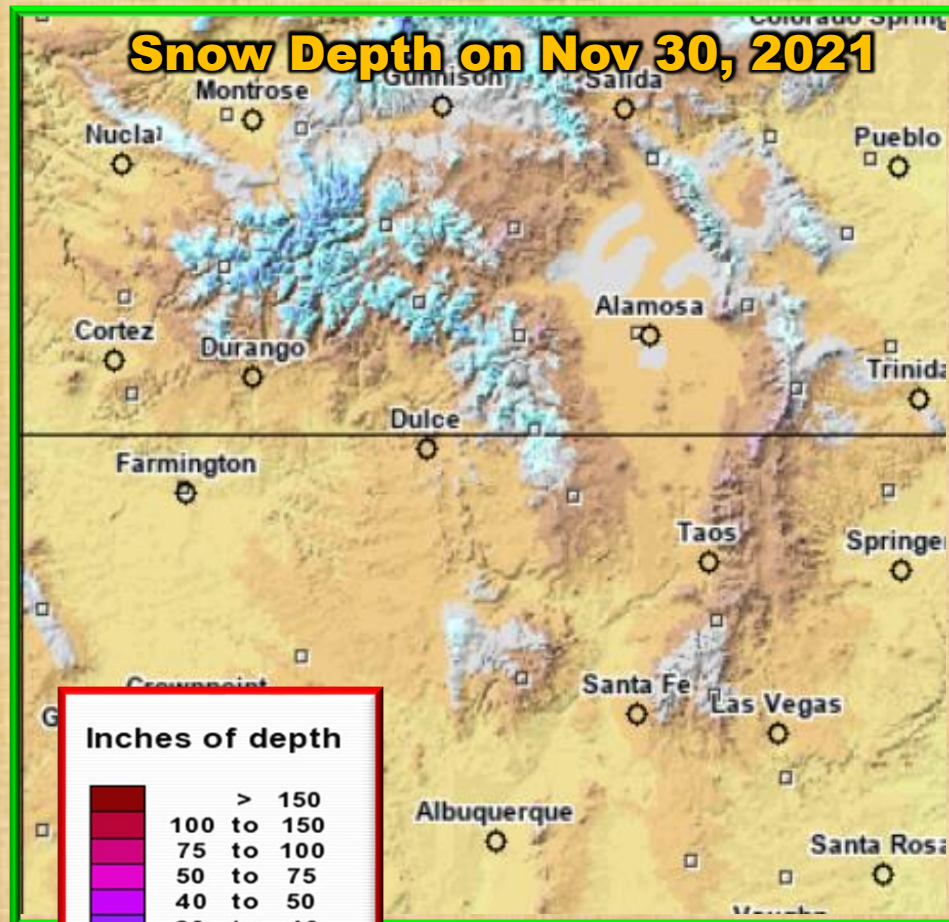
Not Estimated

Elevation in feet

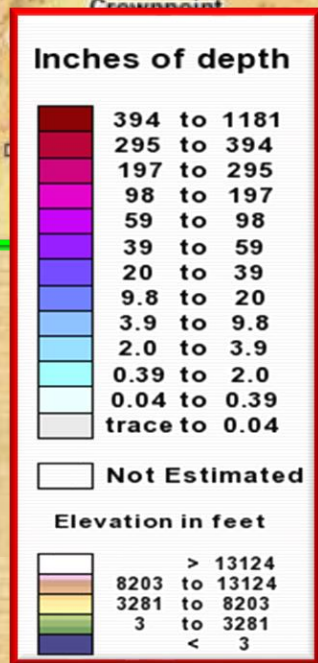
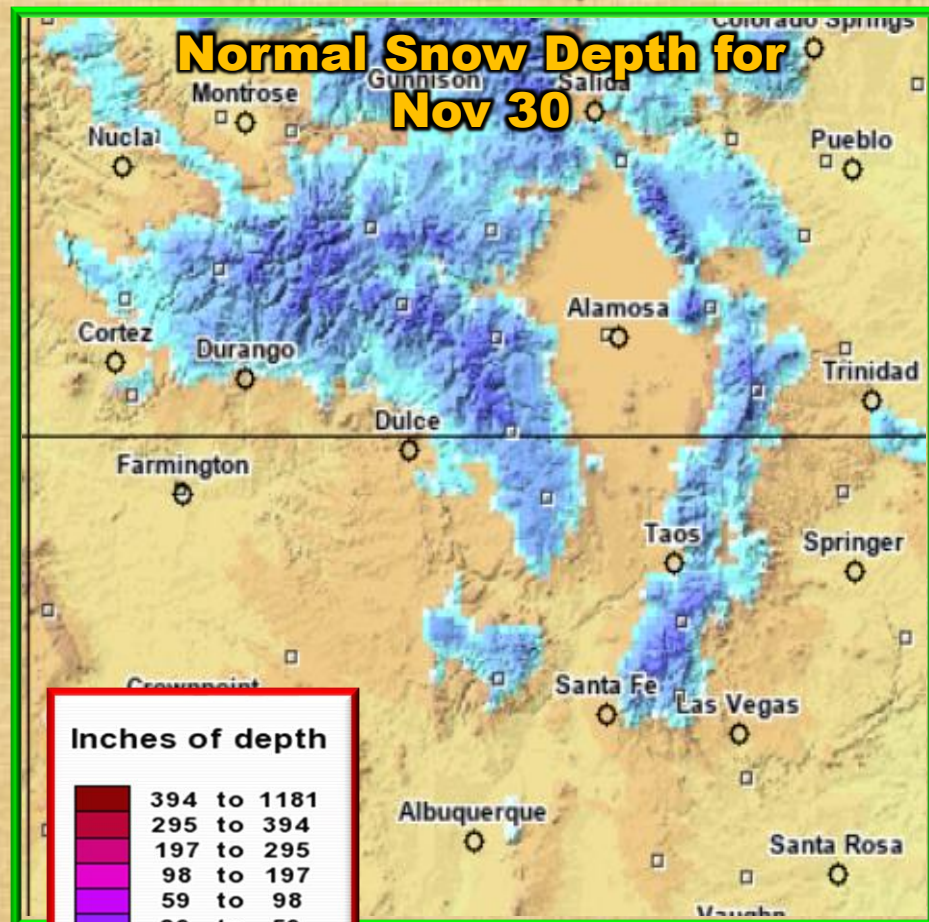


Snow Data Upper Rio Grand Basin as of Nov 30, 2021

Snow Depth on Nov 30, 2021



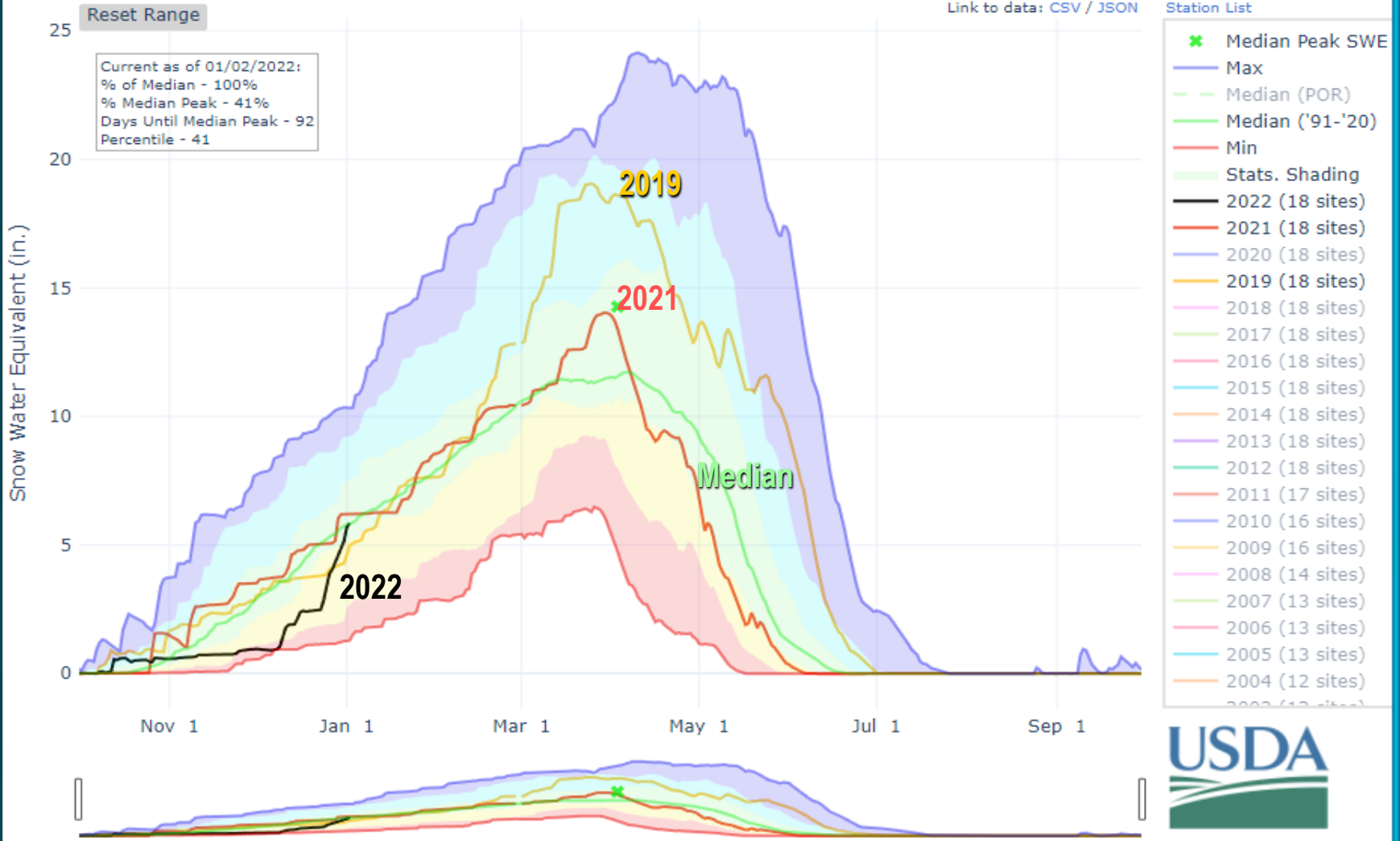
Normal Snow Depth for Nov 30



Snow Water Equivalent as of Nov 30, 2021

Compare to last few years and average values

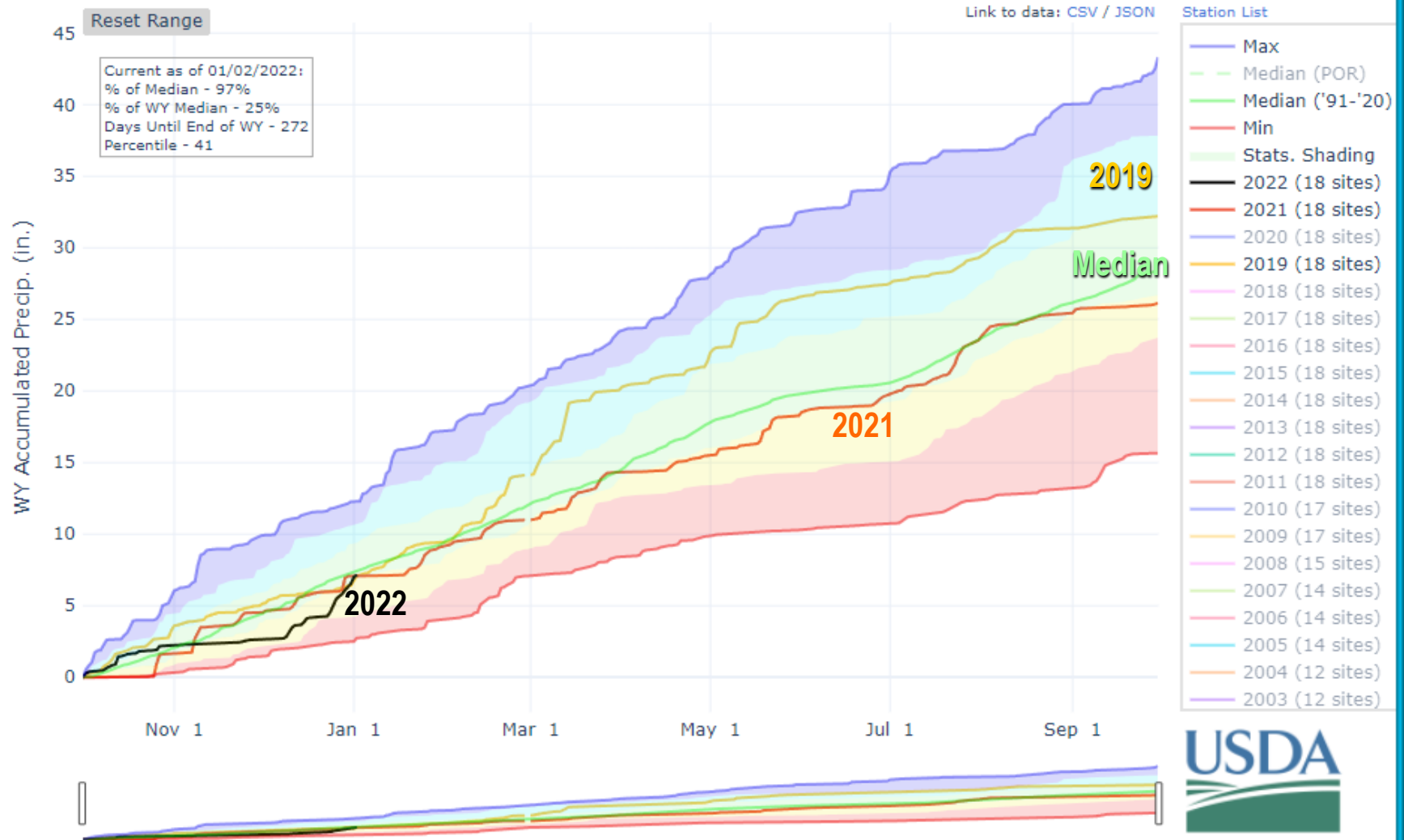
SNOW WATER EQUIVALENT IN UPPER RIO GRANDE



Precipitation for the Water Year Oct 1 – April 30, 2022

Compare to last few years and average values

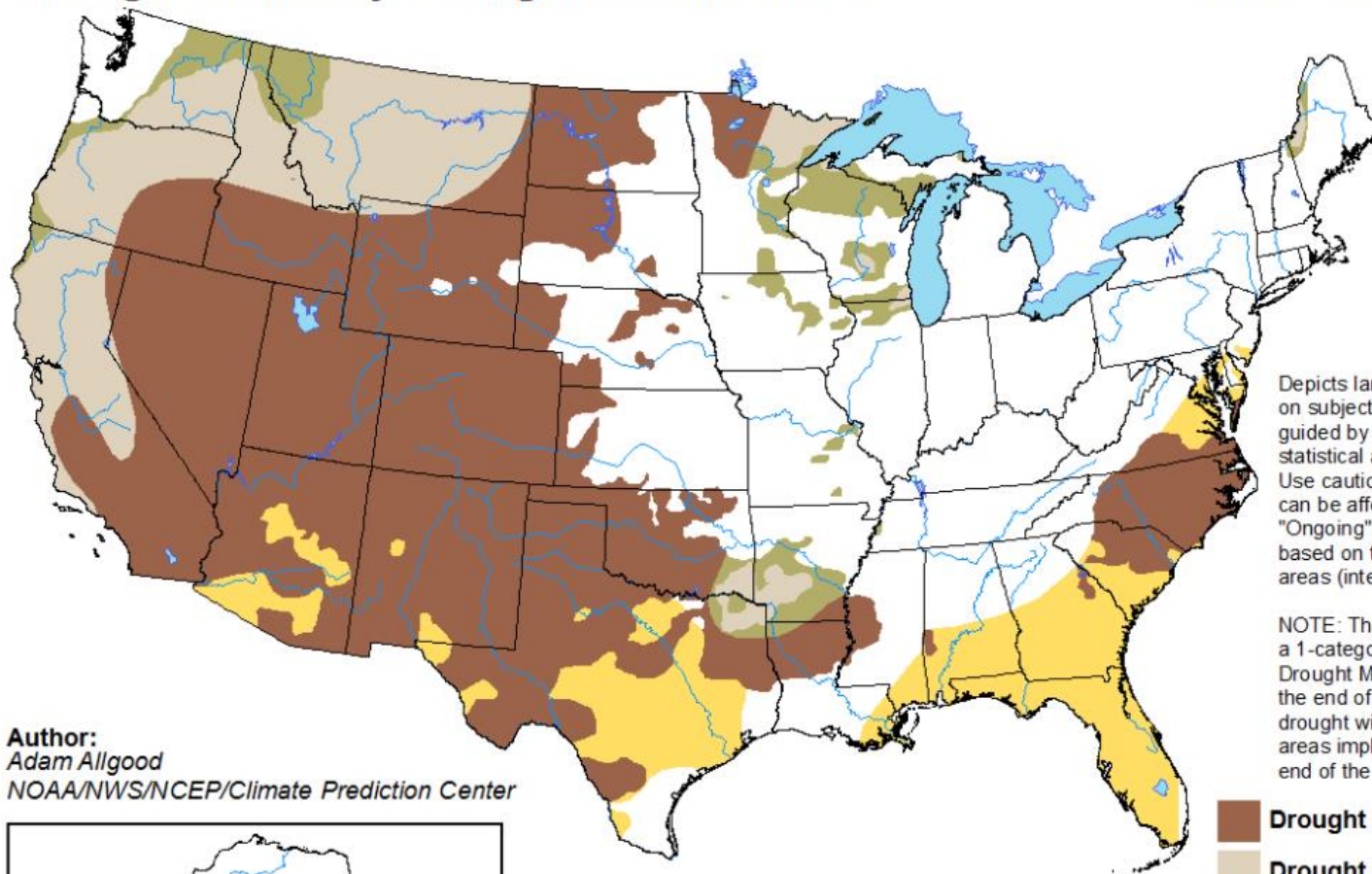
PRECIPITATION IN UPPER RIO GRANDE



U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for December 16, 2021 - March 31, 2022
Released December 16, 2021



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).

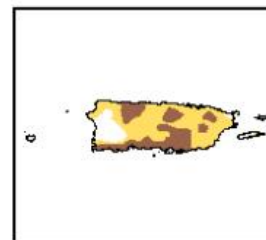
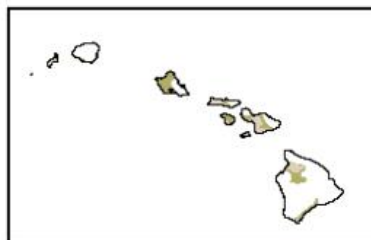
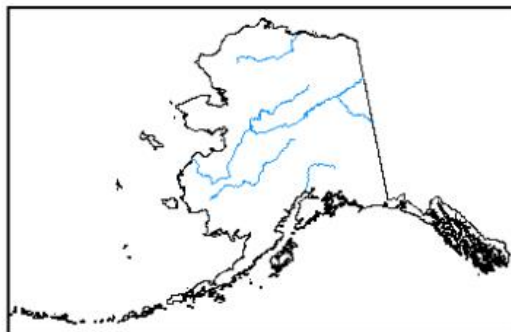
NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

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

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

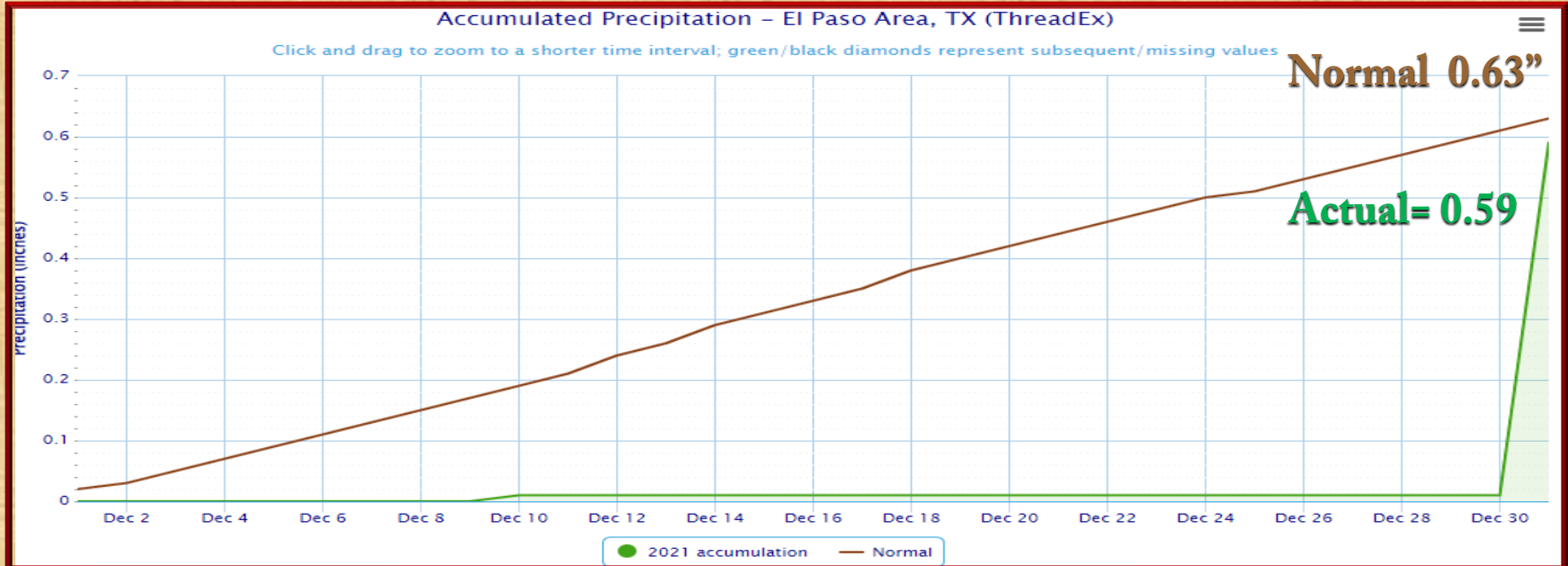
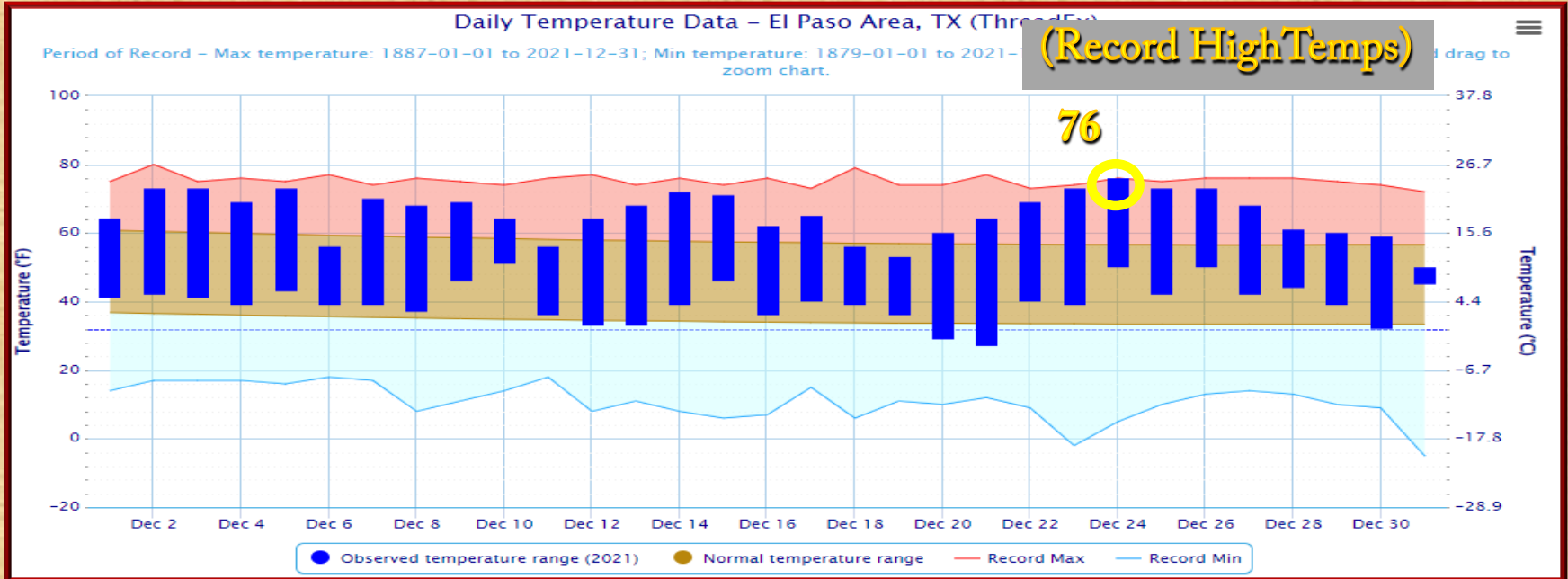


<http://go.usa.gov/3eZ73>

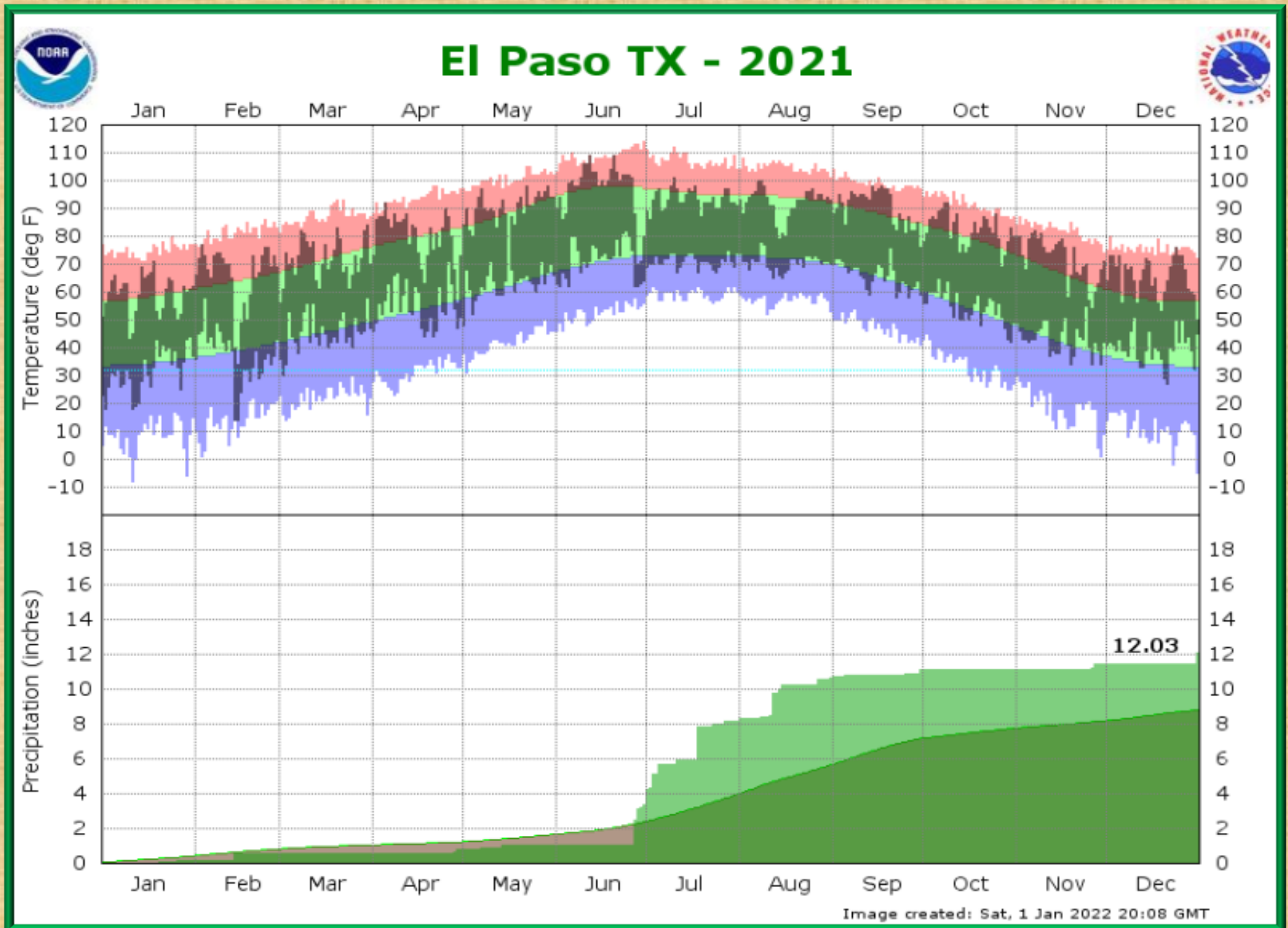


Temperature and precipitation data for November 2021 in El Paso

○ = record



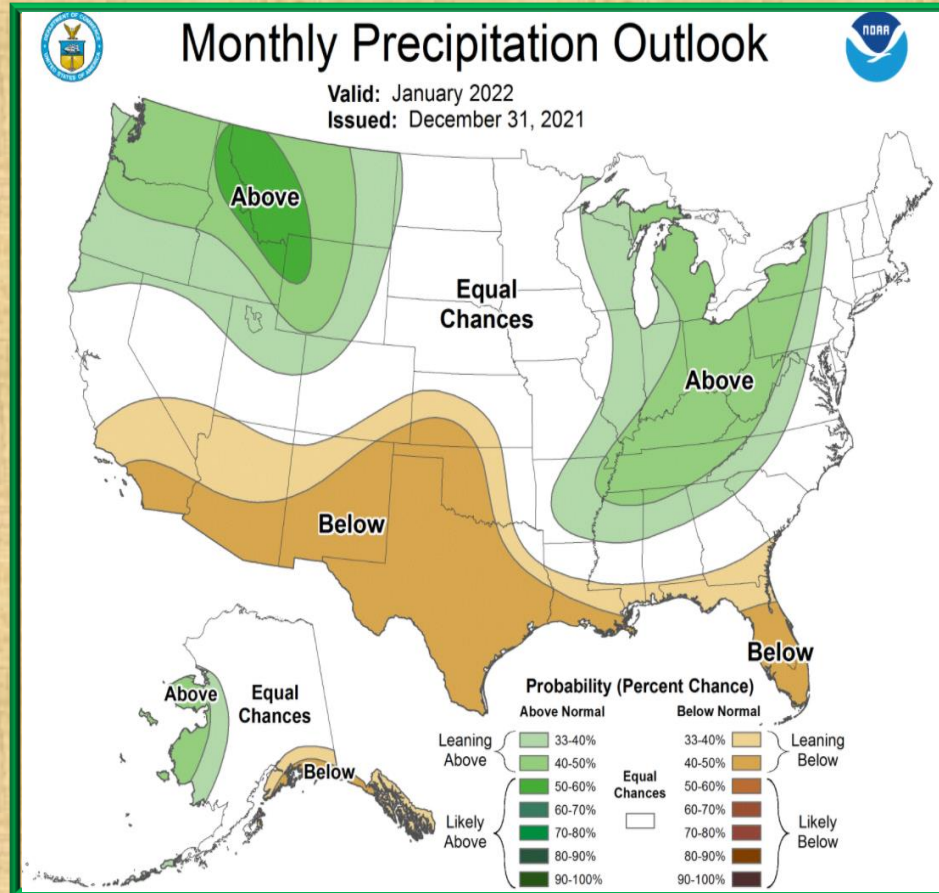
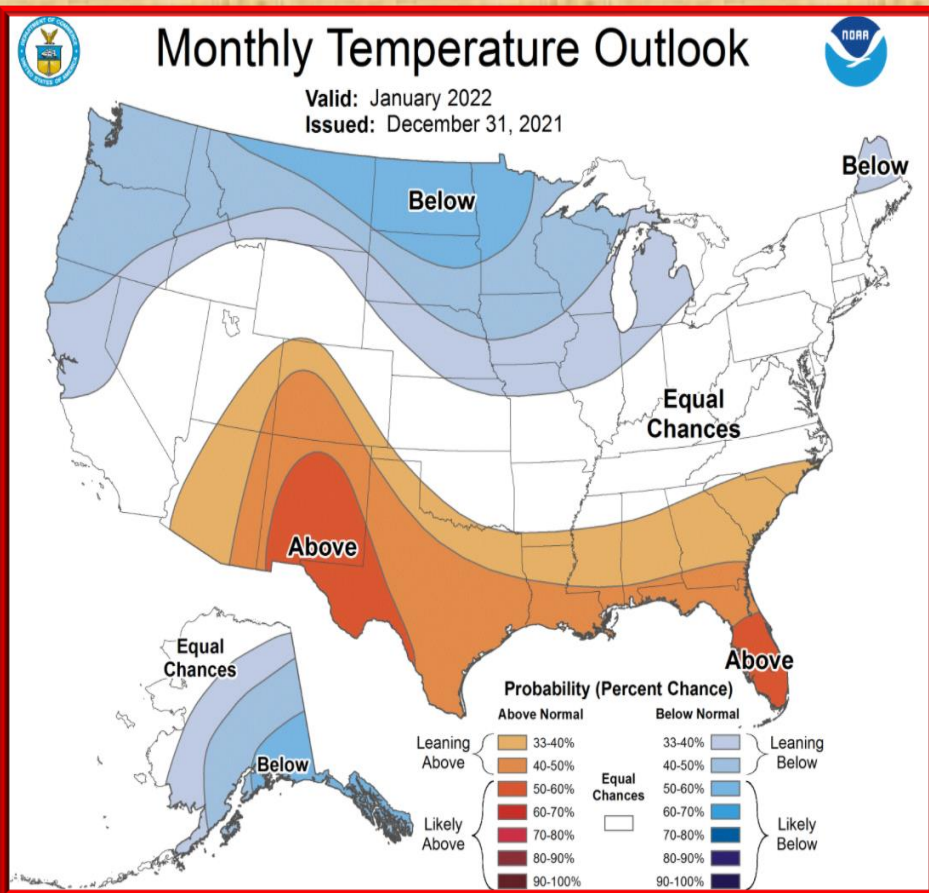
2021: Temperature and Precipitation YTD Data for El Paso



Temperature and precipitation outlook for January 2022

Temperature

Precipitation



Temperature and precipitation outlook For January-March

Temperature

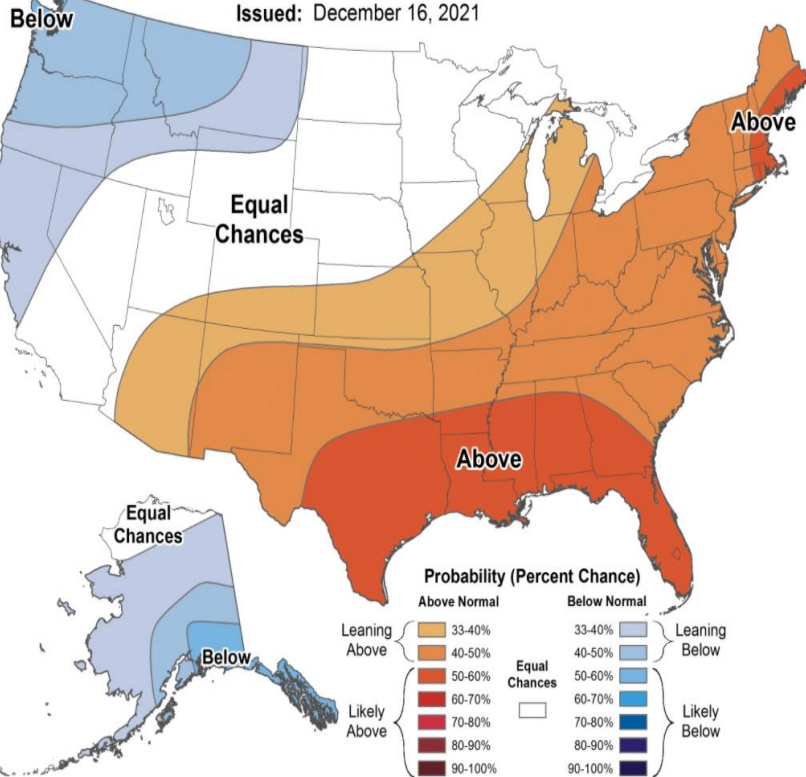
Precipitation



Seasonal Temperature Outlook



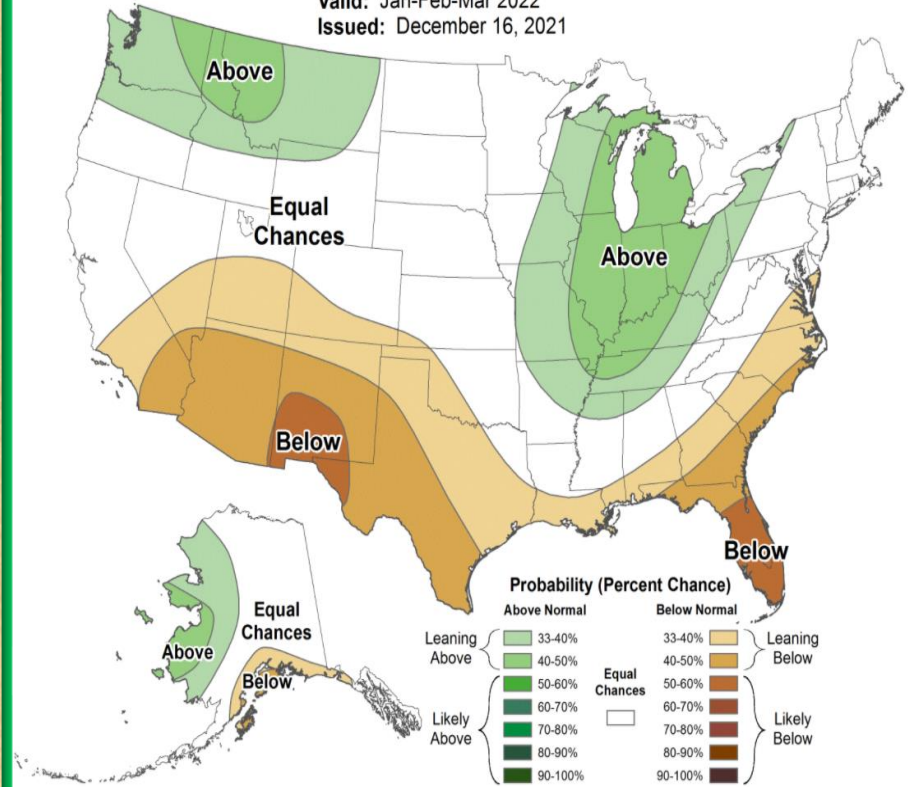
Valid: Jan-Feb-Mar 2022
Issued: December 16, 2021



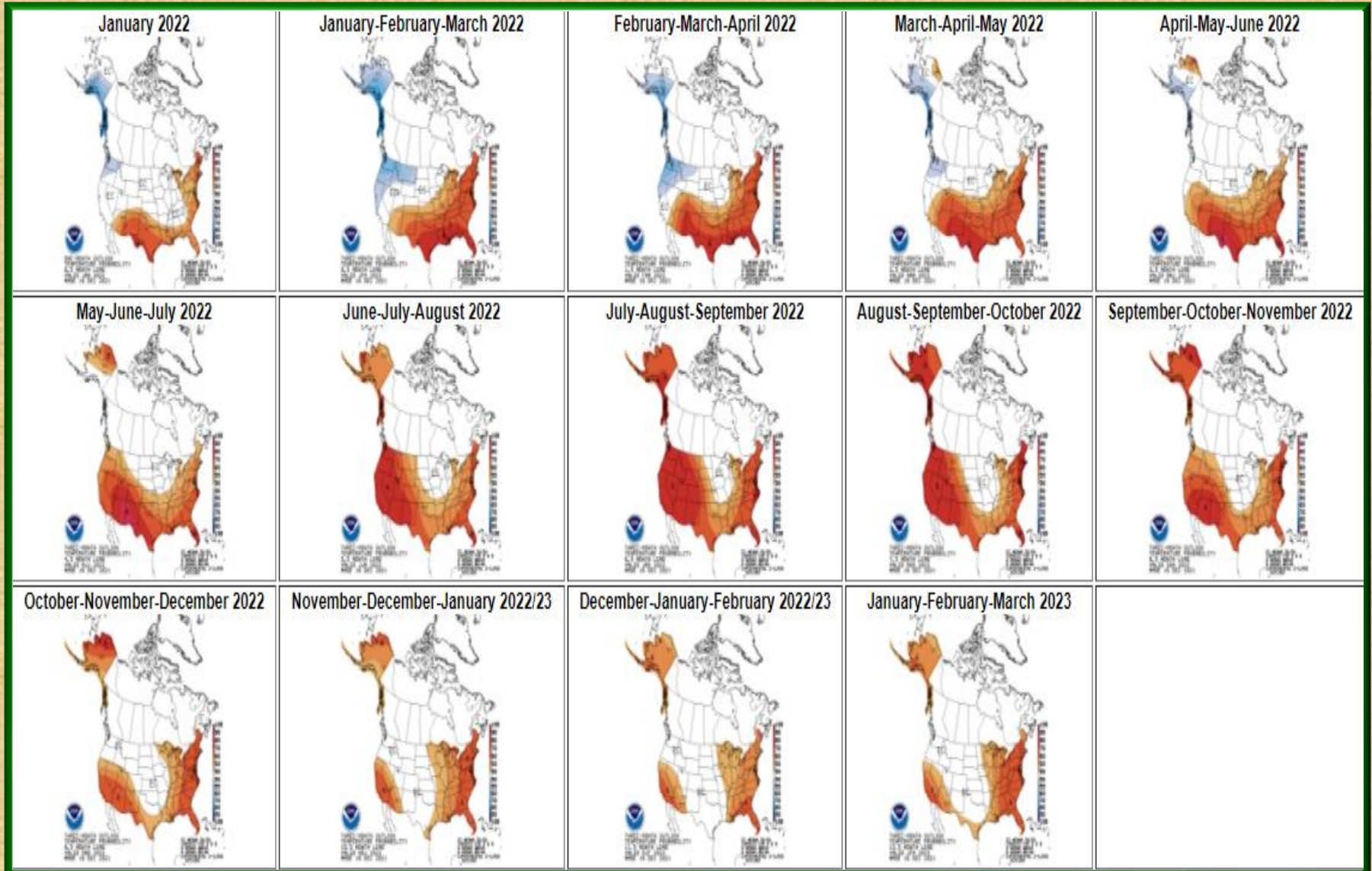
Seasonal Precipitation Outlook



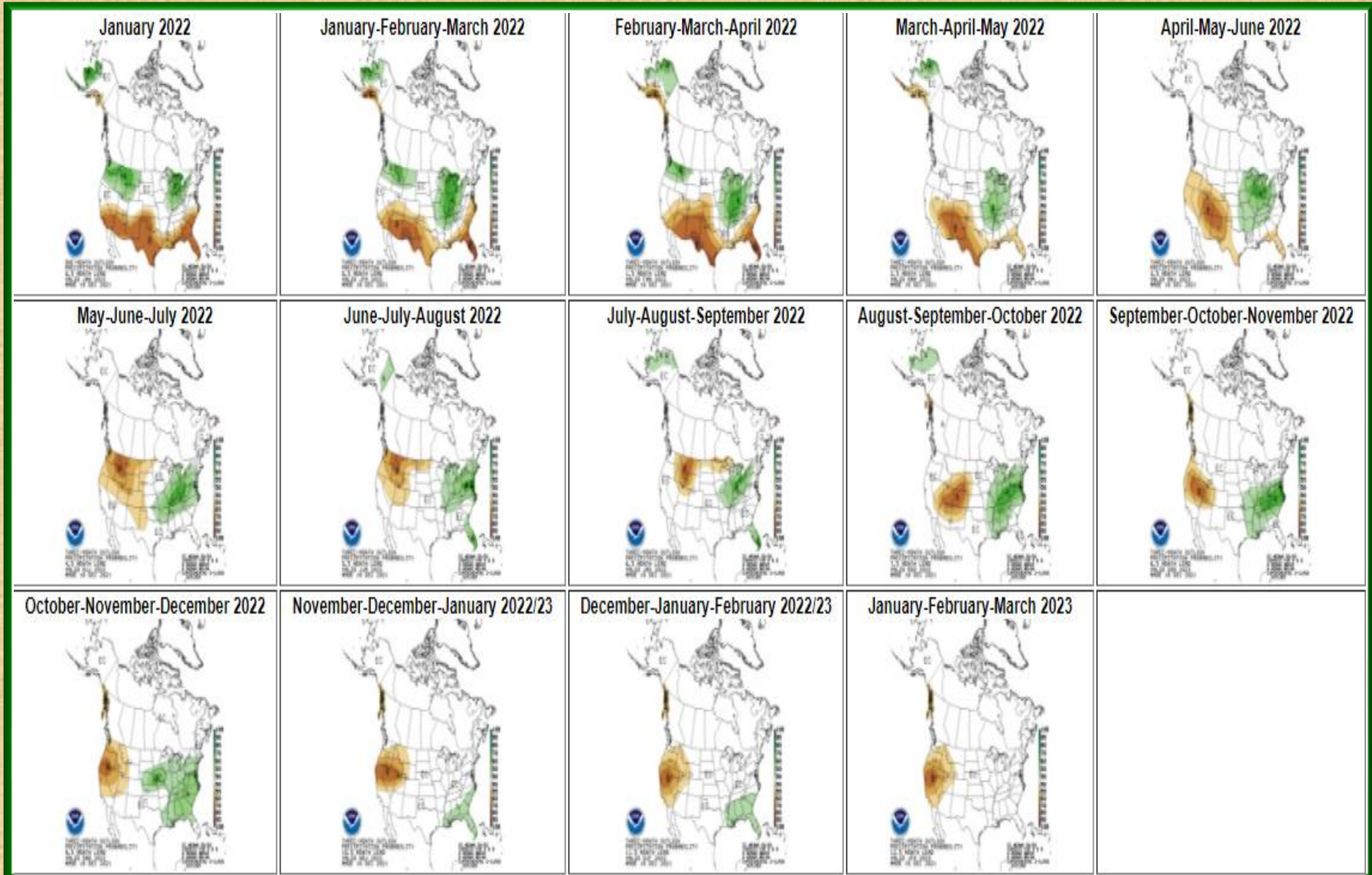
Valid: Jan-Feb-Mar 2022
Issued: December 16, 2021



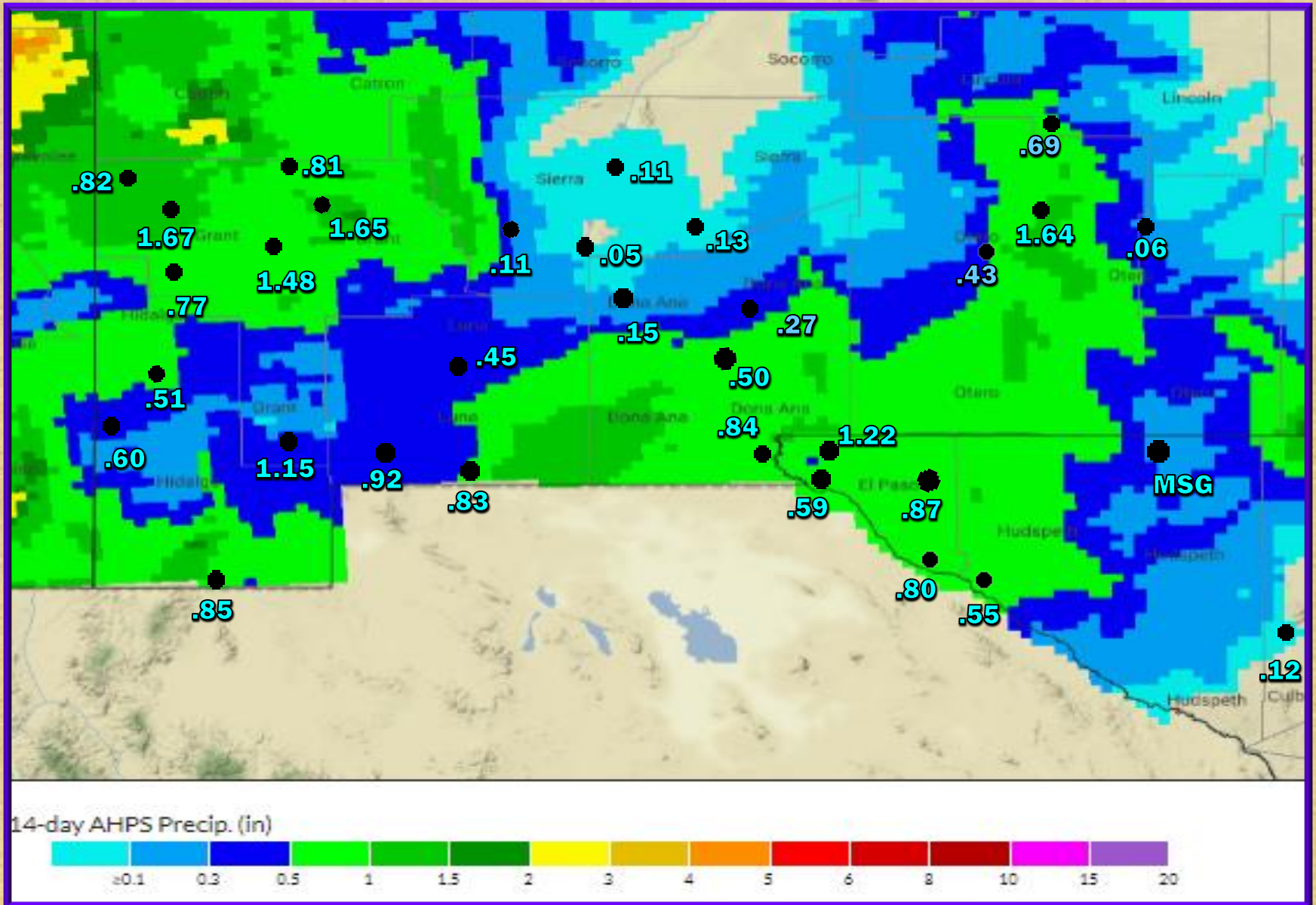
Temperature Outlook Through March 2023



Precipitation Outlook Through March 2023



December 2021 radar rainfall estimate with surface rainfall reports



Radar rainfall estimate percent of normal for the Water Year (Oct 1 – Dec 31)

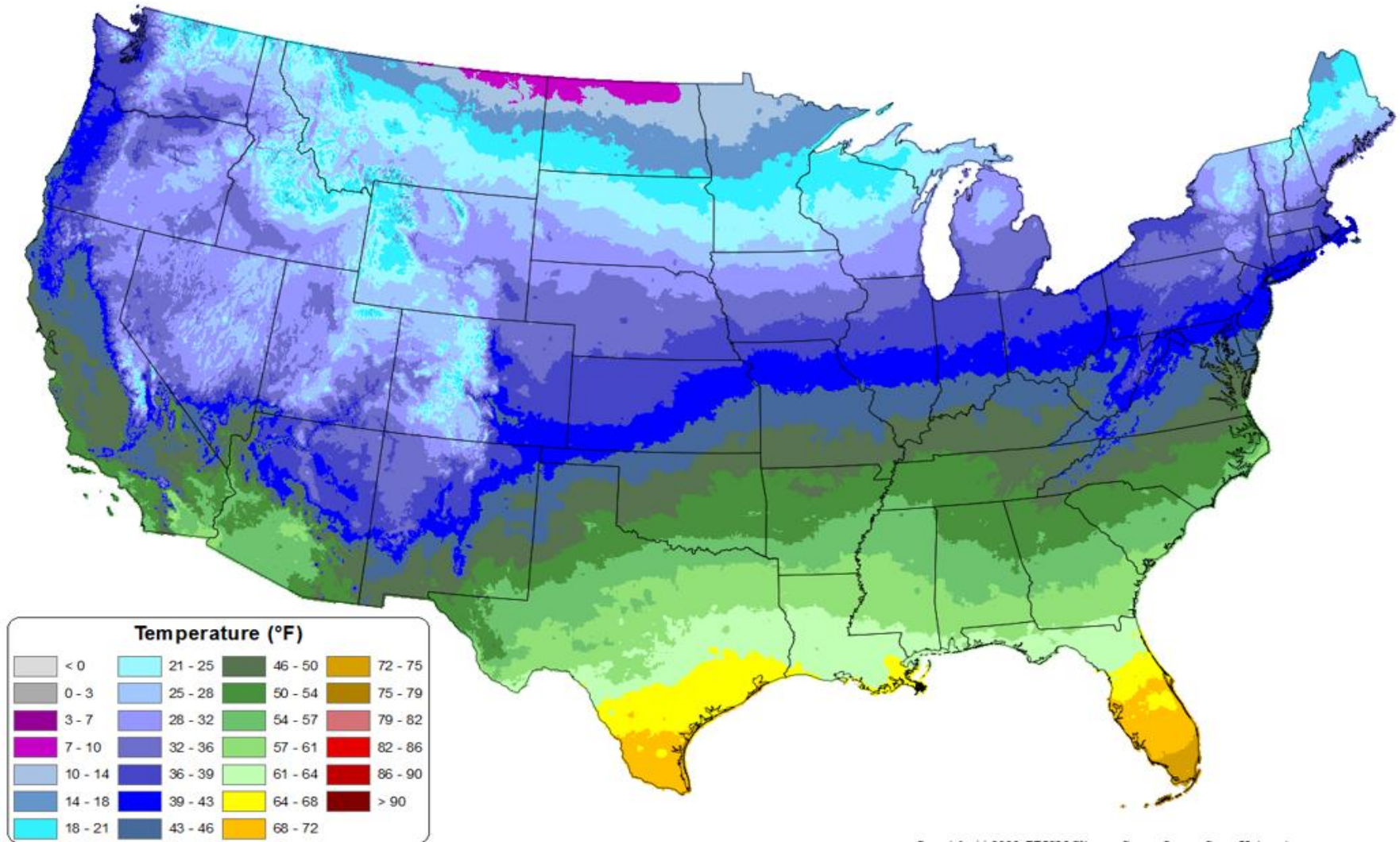
**Data not available due to technical
issues at Colorado Basin RFC**

Average Daily Mean Temperature for December 2021

Average Daily Mean Temperature: Dec 2021

Period ending 7 AM EST 31 Dec 2021

(Map created 03 Jan 2022)

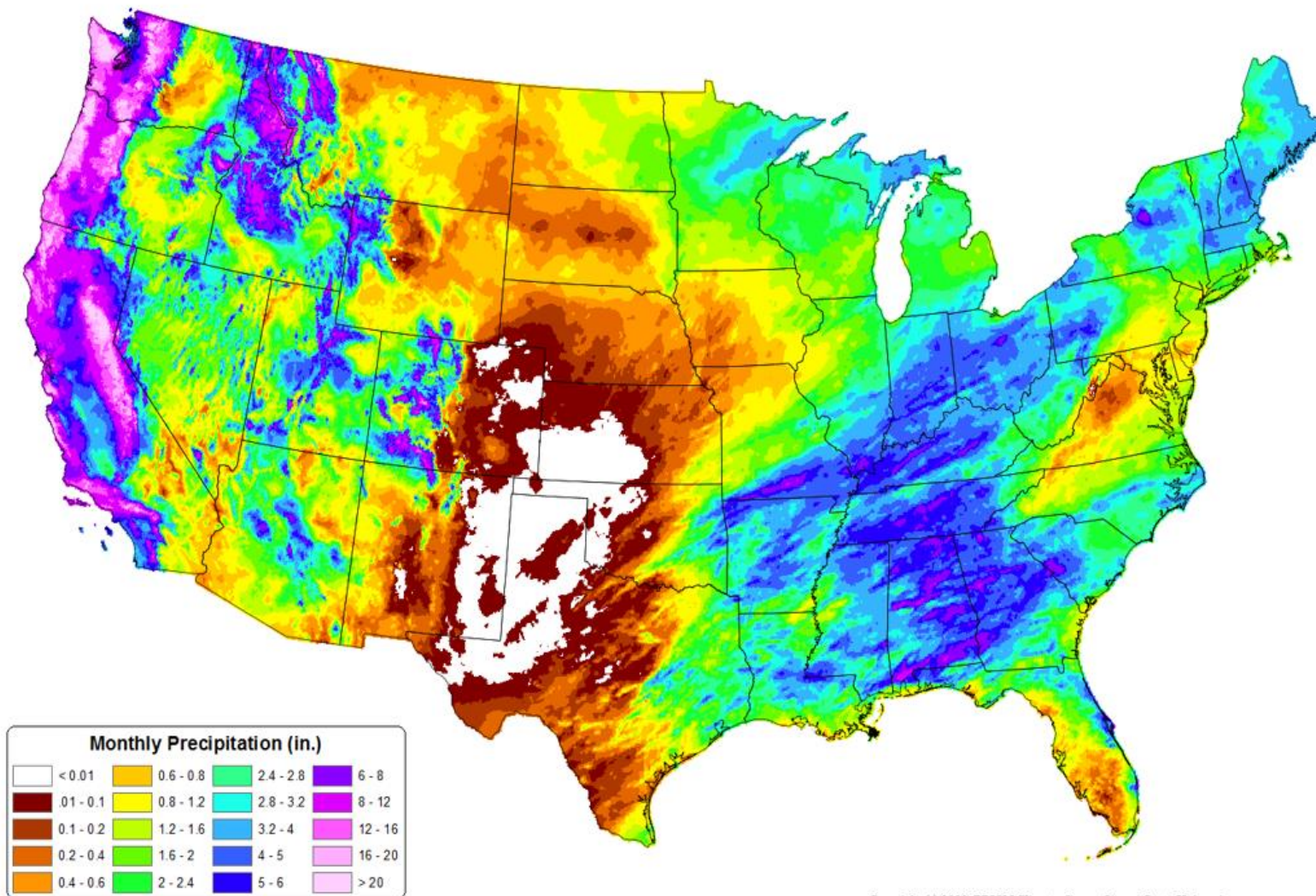


Total Precipitation for December 2021

Total Precipitation: Dec 2021

Period ending 31 Dec 2021

(Map created 03 Jan 2022)



Selected Weather Reports December 2021

Date/Time	Location (County)	Event
DEC 15 615 AM	SAN AGUSTIN PASS-DONA ANA	72 MPH PK WIND GUST
DEC 15 815 AM	WSMR MAIN POST-DONA ANA	65 MPH PK WIND GUST
DEC 15 340 AM	HACHITA VALLEY-HIDALGO	53 MPH PK WIND GUST
DEC 15 200 PM	MAYHILL-OTERO	49 MPH PK WIND GUST
DEC 15 623AM	T OR C AIRPORT- SIERRA	49 MPH PK WIND GUST
DEC 15 541 AM	MESCALERO-OTERO	47 MPH PK WIND GUST
DEC 15 119 PM	HIGH ROLLS-OTERO	46 MPH PK WIND GUST
DEC 15 1053 AM	HOLLOMAN AFB-OTERO	46 MPH PK WIND GUST
DEC 15 449 AM	WINSTON-SIERRA	46 MPH PK WIND GUST
DEC 15 828AM	BIGGS FIELD-EL PASO	46 MPH PK WIND GUST
DEC 15 610 AM	LORDSBURG PLAYA-HIDALGO	45 MPH PK WIND GUST
DEC 15 730 AM	SILVER CITY MTN VIEW-GRANT	43 MPH PK WIND GUST

Selected Weather Reports December 2021

Date/Time	Location (County)	Event
DEC 24	EL PASO AIRPORT-EL PASO	76 DEG RECORD HIGH
DEC 24	SANTA TERESA NWS-DONA ANA	74 DEG RECORD HIGH
DEC 24	LAS CRUCES AIRPORT-DONA ANA	74 DEG RECORD HIGH
DEC 24	DEMING AIRPORT-LUNA	69 DEG RECORD HIGH
DEC 24	ALAMOGORDO AIRPORT-OTERO	68 DEG RECORD HIGH
DEC 24 1220 PM	SAN AUGUSTIN PASS-DONA ANA	70 MPH PEAK WIND
DEC 24 349 PM	HIGH ROLLS-OTERO	66 MPH PEAK WIND
DEC 24 240 PM	HACHITA VALLEY-HIDALGO	63 MPH PEAK WIND
DEC 24 600 AM	WSMR MUSEUM-DONA ANA	61 MPH PEAK WIND
DEC 24 845 AM	MAYHILL-OTERO	55 MPH PEAK WIND
DEC 24 302 PM	HOLLOMAN-OTERO	54 MPH PEAK WIND
DEC 24 400 PM	EL PASO AIRPORT-EL PASO	53 MPH PEAK WIND

Selected Weather Reports December 2021

Date/Time	Location (County)	Event
DEC 24 1220 PM	SAN AUGUSTIN PASS-DONA ANA	70 MPH PEAK WIND
DEC 24 349 PM	HIGH ROLLS-OTERO	66 MPH PEAK WIND
DEC 24 240 PM	HACHITA VALLEY-HIDALGO	63 MPH PEAK WIND
DEC 24 600 AM	WSMR MUSEUM-DONA ANA	61 MPH PEAK WIND
DEC 24 845 AM	MAYHILL-OTERO	55 MPH PEAK WIND
DEC 24 302 PM	HOLLOMAN-OTERO	54 MPH PEAK WIND
DEC 24 400 PM	EL PASO AIRPORT-EL PASO	53 MPH PEAK WIND
DEC 24 1140 AM	DEMING AIRPORT-LUNA	52 MPH PEAK WIND
DEC 24 824 AM	WINSTON-SIERRA	48 MPH PEAK WIND
DEC 24 410 PM	SPACEPORT-SIERRA	48 MPH PEAK WIND
DEC 24 403 PM	T OR C AIRPORT-SIERRA	43 MPH PEAK WIND
DEC 24 239 PM	SANTA TERESA NWS-DONA ANA	41 MPH PEAK WIND

Selected Weather Reports December 2021

Date/Time	Location (County)	Event
DEC 31	CLOUDCROFT 2SW-OTERO	12.5 INCHES SNOW
DEC 31	CLOUDCROFT 2S-OTERO	8.0 INCHES OF SNOW
DEC 31	SILVER CITY 4N-GRANT	2.1 INCHES SNOW
DEC 31	BAYARD 9NE-GRANT	1.7 INCHES SNOW

Special Features

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

Month: **DECEMBER**

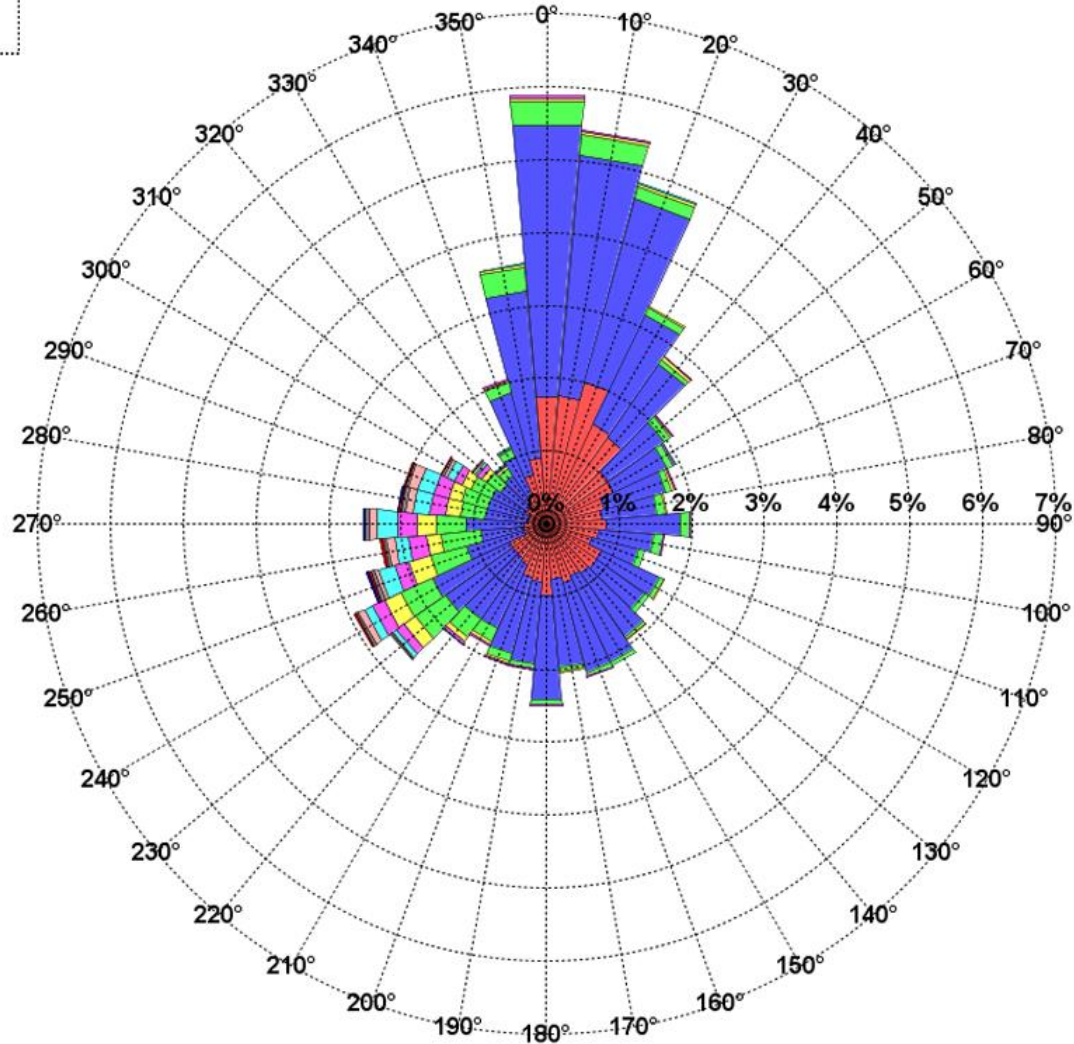
Calm: 13.59%

Variable: 1.46%

WindRose - KELP - EL PASO INTL

% Frequency of Wind Speed from a Direction

POR:19730101-20140602



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 >](#)

Customize Your Weather.gov

City, ST

Enter Your City, ST or ZIP Code

Remember Me

[Privacy Policy](#)

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 >](#)

Customize Your Weather.gov

City, ST

Enter Your City, ST or ZIP Code

Remember Me

[Privacy Policy](#)

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	