October 2021 Weather Digest



October 2021 Weather Summary

October ended up being a very quiet, dry month as the main storm track remained well north of the area. In fact it behaved more like a spring time month that an autumn month. Some light rain fell across many parts of the Borderland on the first two days of the month; little did we suspect that we be the last occurrence of precipitation across the area for the month. Winds picked up on the 12th as a strong Pacific storm moved across southern Colorado, bringing strong winds and blowing dust to the area. Another Pacific storm swept across northern New Mexico on the 26, allowing strong winds to develop once again.

With the lack of rain/clouds and plenty of sunshine, the average temperature across the region was about 1 to 3 degrees above normal, with high temperatures the main contributor to the warmth. The month ended up being very dry, with many lowland sites not reporting any measurable rain. The majority of the area east of the Continental Divide received zero to 25 percent of normal, while areas west of the Divide made out a bit better with about 20 to 50 percent of normal.

October 2021 Weather Summary, cont'd

Looking ahead to November, daylight continues to decrease though the rate slows down. Daylight on the first of the month is 10 hours and 53 mins of light, falling to 10 hours and 14 mins of light on the 30th. Average temperatures also continue to decrease. At El Paso International Airport, the average high at the beginning of the month is 73 degrees, while at the end of the month it has fallen to 61 degrees. On November 7th we switch back to Mountain Standard Time, so the time of sunset is at its earliest the remainder of the month, not to return back to early November sunset times until the end of December. For Lunar fans, the New Moon occurs November 4th, while the Full Moon occurs on the 19th. This Full Moon is also known as the Beaver Moon, as beavers typically begin building their winter dams around this time. We will also have a partial Lunar Eclipse on the 19th, which should be visible across all of North America.

Oct 10 Kelvin-Hemholz waves near Santa Teresa

Oct 22 Storm near Sierra Blanca





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 a neutral status but will soon progress to La Niña conditions, where it is expected to stay for much of the

winter ahead.





TYPICAL LA NIÑA WINTERS La Niña Pattern variable colder Polar Jet Stream wetter blocking high pressure warmer drier YPICAL EL NIÑO WINTERS

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 Patterr

wetter

colder

warmer

extended Pacific Jet Stream, amplified storm track

low pressure

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.



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

October 26, 2021

July 27, 2021





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





Valid for October 21, 2021 - January 31, 2022 Released October 21, 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).

Drought persists

Drought remains but improves

Drought removal likely

Drought development likely



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

Author: Yun Fan NOAA/NWS/NCEP/Climate Prediction Center





Temperature and precipitation data for October 2021 in El Paso

= record



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



2021: Temperature and Precipitation YTD Data for El Paso



Temperature and precipitation outlook for November 2021 Precipitation Temperature Monthly Temperature Outlook Monthly Precipitation Outlook Valid: November 2021 Valid: November 2021 Issued: October 31, 2021 Issued: October 31, 2021 Revised Revised Above Above Above Equal Equal Chances Chances Above Below Below Above Equal Chances Probability (Percent Chance) **Probability (Percent Chance)** Equal Above Normal Above Norma **Below Normal Below Normal** Chances Leaning 33-409 33-40% Leaning

Below

Likely

Below

40-50%

50-60%

60.70%

70-80%

80-90%

90-100%

Equal

Chances

Above

Likel

Above

Belov

40-50%

50-60%

60-70%

70-80%

80-90%

90-100%

Leaning 33-409 Leaning 33-40% Above Below 40-50% 40-50% Equal 50-60% 50-60% Below Chances 60-70% 60-70% Likely Likely 70-80% 70-80% Above Below 80-90% 80-90% 90-100% 90-100%

Temperature and precipitation outlook For November-January

Temperature







Temperature Outlook Through January 2023



Precipitation Outlook Through January 2023



October 2021 radar rainfall estimate with surface rainfall reports

Total Monthly Precipitation - October 2021



October 2021 radar rainfall estimate percent of normal



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



Average Daily Mean Temperature for October 2021



Total Precipitation for October 2021



Selected Weather Reports October 2021

Date/Time	Location (County)	Event
OCT 12 410 PM	SAN AUGUSTIN PASS-DONA ANA	88 MPH PEAK WIND GUST
OCT 12 240 PM	HACHITA 15SW-HIDALGO	85 MPH PEAK WIND GUST
OCT 12 325 PM	WSMR MAIN POST-DONA ANA	69 MPH PEAK WIND GUST
OCT 12 415 PM	SUNSPOT-OTERO	65 MPH PEAK WIND GUST
OCT 12 250 AM	RODEO 2N-HIDALGO	63 MPH PEAK WIND GUST
OCT 12 159 AM	REDROCK 12E-GRANT	62 MPH PEAK WIND GUST
OCT 12 1226 PM	DRIPPING SPRINGS-DONA ANA	61 MPH PEAK WIND GUST
OCT 12 432 PM	HIGH ROLLS-OTERO	59 MPH PEAK WIND GUST
OCT 12 438 PM	SANTA TERESA 5NW-DONA ANA	58 MPH PEAK WIND GUST
OCT 12 241 PM	MESCALERO-OTERO	57 MPH PEAK WIND GUST
OCT 12 703 PM	EL PASO INTL ARPT-EL PASO	55 MPH PEAK WIND GUST
OCT 12 258 PM	HOLLOMAN AFB-OTERO	54 MPH PEAK WIND GUST

Selected Weather Reports October 2021

Date/Time	Location (County)	Event
OCT 12 1155 AM	LAS CRUCES ARPT-DONA ANA	52 MPH PEAK WIND GUST
OCT 12 101 PM	MAYHILL 3NW-OTERO	51 MPH PEAK WIND GUST
OCT 13 814 AM	LAKE ROBERTS-GRANT	22 DEG LOW TEMP
OCT 13 745 AM	GILA-GRANT	22 DEG LOW TEMP
OCT 13 744 AM	WINSTON- SIERRA	25 DEG LOW TEMP
OCT 13 733 AM	SILVER CITY (VALLEY DRIVE)-GRANT	30 DEG LOW TEMP
OCT 13 715 AM	ANIMAS-HIDALGO	30 DEG LOW TEMP
OCT 13 720 AM	LORDSBURG (N. PLAYA)-HIDALGO	31 DEG LOW TEMP
OCT 13 650 AM	CHIRICAHUA DES MUSEUM-DONA ANA	32 DEG LOW TEMP
OCT 13 735 AM	GRANT CO ARPT-GRANT	32 DEG LOW TEMP
OCT 26 425 PM	SAN AUGUSTIN PASS-DONA ANA	85 MPH PEAK WIND GUST
OCT 26 1255 PM	WSMR MAIN POST-DONA ANA	60 MPH PEAK WIND GUST

Selected Weather Reports October 2021

Date/Time	Location (County)	Event
OCT 26 827 PM	EL PASO INTL ARPT-EL PASO	56 MPH PEAK WIND GUST
OCT 26 241 PM	MESCALERO-OTERO	54 MPH PEAK WIND GUST
OCT 26 415 PM	LAS CRUCES ARPT-DONA ANA	52 MPH PEAK WIND GUST
OCT 26 424 PM	HIGH ROLLS-OTERO	52 MPH PEAK WIND GUST
OCT 26 415 PM	SUNSPOT-OTERO	52 MPH PEAK WIND GUST
OCT 26 810 PM	TULAROSA 22NW-OTERO	52 MPH PEAK WIND GUST
OCT 26 335 PM	ROAD FORKS 6NE-HIDALGO	51 MPH PEAK WIND GUST
OCT 26 126 PM	DRIPPING SPRINGS-DONA ANA	48 MPH PEAK WIND GUST
OCT 26 129 PM	SANTA TERESA 5NW-DONA ANA	45 MPH PEAK WIND GUST
OCT 26 335 PM	GRANT CO ARPT-GRANT	44 MPH PEAK WIND GUST

Special Features

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





2007 Spring Fall
2008 Spring Fall

2009 Spring Fall

2010 Spring Fall

2011 <u>Spring</u> Fall 2012 <u>Spring</u> Fall

2013 Spring Fall

2014 Spring Fall

March

April May

June

July

August

September

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

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.