

# Spotter Spotlight

The Official Newsletter for Spotters in the Mojave Desert & Southern Great Basin

## Fall-Winter Outlook

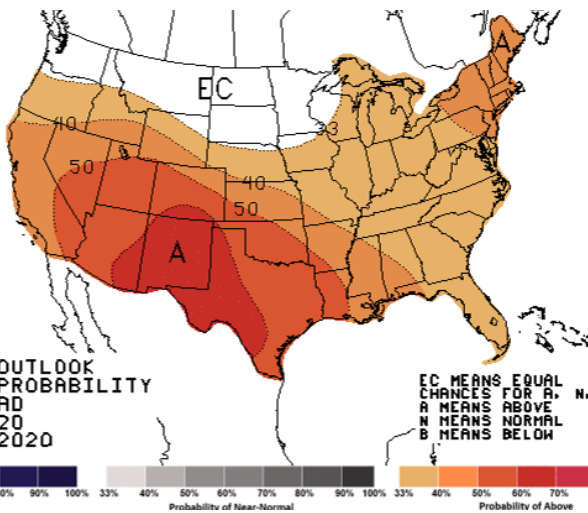
Climate Prediction Center's 3-month (NOV-DEC-JAN) outlook and an ENSO Update  
By Chelsea Kryston

### Topics

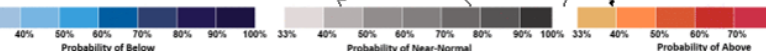
- Fall/Winter Outlook
- Fire Weather & Impacts
- What to report this winter season
- Submit Your Photos
- Join CoCoRaHS
- Fall/Winter Word Search

## 3-Month Temperature Outlook

Above normal temperatures seems to be the 'new normal,' especially across the Mojave Desert. So no surprise that the Mojave Desert + surrounding region has a +50% probability of seeing above-normal temperatures over the next 3 months. But, what's 'normal' this time of year? Well, most valley locations have average normal temperatures between the low 60s to mid 40s during the months of November-January.

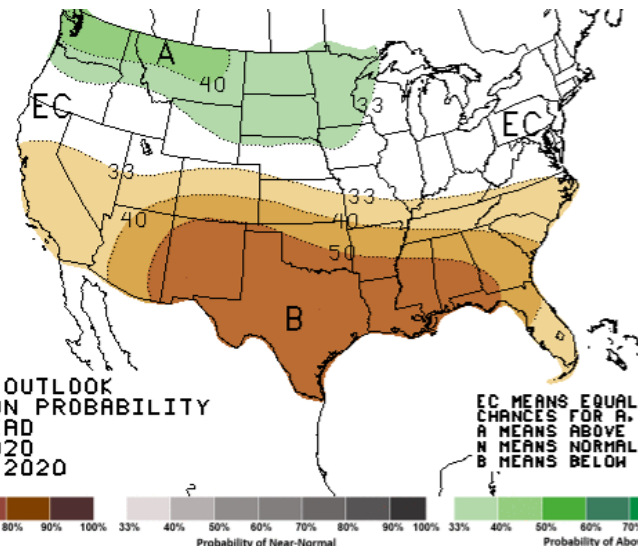


THREE-MONTH OUTLOOK  
TEMPERATURE PROBABILITY  
1.5 MONTH LEAD  
VALID NDJ 2020  
MADE 17 SEP 2020

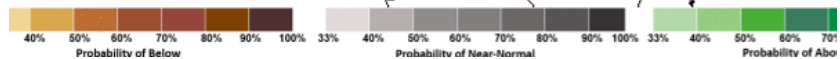


## 3-Month Precipitation Outlook

The 3-month precipitation outlook isn't all that surprising either, especially considering we are currently in a La Niña phase (further details in the next section on this topic.) The entire southwest has a 33-40% probability of seeing below-normal precipitation over the next 3 months. Precipitation typically varies considerably by location but in general, most valley locations normally see 1.5 to 2 inches during the months of November-January.



THREE-MONTH OUTLOOK  
PRECIPITATION PROBABILITY  
1.5 MONTH LEAD  
VALID NDJ 2020  
MADE 17 SEP 2020

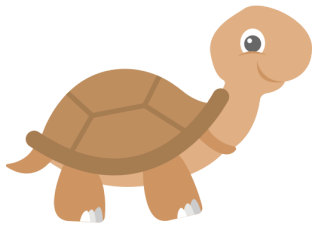


## ENSO and the Southwest

The ENSO experts at the CPC say La Niña is here to stay through the winter. So what does that mean for us? The atmosphere responds to La Niña's cooler-than-average ocean surface, impacting our weather patterns. How you might ask, well, La Niña conditions create a strengthened Walker Circulation and it's what we have: air rising vigorously over the very warm western Pacific, traveling eastward high up in the atmosphere, sinking over the cooler central-eastern Pacific, and traveling back westward near the surface. This circulation contributes to the ridge of high pressure that dominates the weather pattern across the eastern Pacific and western CONUS, leading to a long-term pattern of warmer temperatures and little precipitation.

Wanna learn more about climate and climate patterns? Check out [climate.gov](https://climate.gov) for more information!





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## 2020 Desert Southwest Fire Season

By Andy Gorelow

Every year in the Great Basin and southern Mojave Desert wildfires are a common occurrence. While most fires are small and remain at just a few acres, occasionally when conditions are just right, these fires can grow to well over 10,000 acres. Fire is caused by two factors, human and natural. Most human caused fires are started by illegal campfires, ricocheting bullets, or discarded cigarettes. Chain dragging, trains, and intentional starts are also ways human caused fires begin, although these are less common. The most common way natural fires start is from lightning, which occurs mainly during the summertime in the Southwest. The unofficial wildfire season in the southern Great Basin and Mojave Desert generally runs from mid-spring to the end of July. The three main factors which cause a significant increase in fire activity during that time is dry lightning, gusty winds, and dry fuels. During the winter months of January, February, and March, Las Vegas sees about 42% of its annual rainfall, but as we go into April, May and June those totals drop to around 8%. This means that significant drying of fuels will occur during the spring, especially as the temperatures increase and the relative humidity drops.

**WILDFIRE**  
Prevention Tips

- Check your forest district's wildfire alert system and for high winds before creating an outdoor fire
- Never leave any fire unattended
- Completely extinguish any outdoor fire you create with water and dirt
- Don't throw cigarettes, other smoking materials or matches on the ground or out of vehicle windows
- Be mindful when operating equipment outdoors that can create heat or sparks
- Speak up and alert authorities if you suspect someone is in danger of starting a wildfire



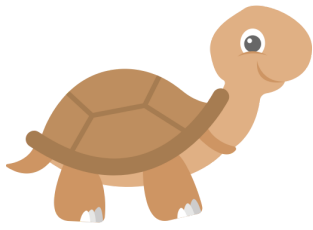
Bishop Fire, Photo Credit, Inciweb

In the early stages of Monsoon Season, which runs from July through September, we will start to see just enough moisture to produce high based thunderstorms. Sometimes these storm bases can be as high as 15,000 feet and any rain that does fall will quickly be evaporated because the lower levels are so dry. Not only can you get lightning from these storms, but strong gusty winds are also possible due to strong outflow winds. One issue going into the 2020 fire season was that the previous fall and winter were relatively wet. This allowed for a significant amount of desert grasses to grow and as the spring became drier and drier, these eventually dried out leading to an ample amount of fuel. The first major fire of the season occurred on May 10 in northwest Arizona when a late season cold front brought isolated thunderstorms to the area. These storms produced little rainfall, but plenty of lightning. One lightning strike would cause what would be named

the Basin Fire. The Basin Fire burned for 8 days and totaled 38,804 acres. This turned out to be the first of several large fires that burned during the course of the summer across the Great Basin. The Meadow Valley fire in Lincoln County burned just shy of 60,000 acres, the Dome Fire in the Mojave National Preserve burned just over 43,000 acres, and the Bishop Fire in Lincoln County burned just over 13,000 acres. Two of the more notable fires this year burned close to Las Vegas. First was the Mahogany Fire which started on June 28 from an illegal campfire and spread almost 3,000 acres in one day due to winds gusting over 60 mph. The other was the Cottonwood fire which started on July 20 from an overnight thunderstorm and burned 2,817 acres just to the southwest of the Las Vegas Valley. Luckily, both of these fires did not cause any significant damage. Even though we are heading into the fall, conditions are still extremely dry as precipitation has been sparse over the last several months. One factor in our favor for additional large wildfires are the shorter days which lead to higher relative humidity and overall lighter winds.



Mahogany Fire, Photo Credit, Ray Johnson



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## What to Report this Winter

Even if we don't see much precipitation this winter there is still weather you can report to us!

Wind Damage

Winds Over 40 MPH

Snow Accumulation

Icy Roads

Poor Driving Conditions

Flooding/Flash Flooding

Visibilities less than 1/2 mile due to Fog/Dust

Tornadoes/Funnel Clouds

Wall Clouds

Sleet/Hail Size & Damage

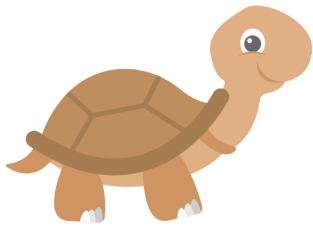
Your reports are used in **REAL-TIME** to make weather decisions that keep you and your community safe.

## Submit your weather pictures and videos!

Do you have some awesome weather pictures you'd like to share with us? Send us your best weather photos and we will include them in our next newsletter article! Have a great weather video? We'd love to see those too! We're always looking for great footage to add to your library - who knows, maybe it'll end up in our next spotter presentation! Be sure to include the photographer/videographer's name in the email so we can provide photo credit. Send us your photos and videos using this [Google Form \(click here\)](#).

## Keep Track of the Weather With CoCoRaHS

Are you curious as to how much rain or snow falls each time a storm moves through the area? Do you have a rain gauge you frequently check for rain? If so, the National Weather Service in Las Vegas would like to encourage you to join CoCoRaHS, known as the Community Collaborative Rain, Hail and Snow Network. This network allows you to report online how much rain or snow you may have received or even if you saw any hail. Additional comments on the weather in your area that day such as strong winds or storm reports such as flooding can also be submitted. Not only is this information useful to forecasters for verifying forecasts and warnings, but CoCoRaHS also keeps an online record of your reports. This data can then be sorted to compile totals for a given site or see how frequently you received rain or snow in a given time frame. All you have to do to join is visit <http://www.cocorahs.org/> and click on "Join CoCoRaHS" on the left sidebar menu and fill out a short form. Please contact [Jennifer.Varian@noaa.gov](mailto:Jennifer.Varian@noaa.gov) or [Andy.Gorelow@noaa.gov](mailto:Andy.Gorelow@noaa.gov) with any questions.



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## Fall-Winter Weather Word Search

T	Z	Z	L	I	F	L	W	L	O	F	I	N	V
L	L	O	E	R	I	R	O	I	C	F	D	L	Y
F	V	E	R	A	C	G	E	N	N	O	A	C	D
R	W	A	C	A	E	H	W	E	F	T	I	F	R
O	W	I	N	D	Y	T	I	Z	Z	A	E	C	I
S	G	O	A	V	F	L	W	L	O	E	H	R	Z
T	O	I	N	I	I	Z	L	T	L	H	L	C	Z
S	F	G	E	S	A	R	R	A	H	Y	A	R	L
O	N	L	I	O	A	A	A	E	F	E	W	W	E
T	S	O	L	R	E	H	C	N	A	L	A	V	A
N	D	Z	W	Y	B	L	I	Z	Z	A	R	D	V
A	E	D	C	S	D	G	N	I	N	R	A	W	S
T	E	E	L	S	L	L	E	G	C	O	L	D	S
Z	I	A	E	L	C	F	T	Z	I	N	L	N	I

- FALL
- WINTER
- SNOW
- WINDY
- DRIZZLE
- FOG
- COLD
- CHILLY
- ICY
- BLIZZARD
- FREEZE
- ADVISORY
- WARNING
- FROST
- AVALANCHE
- SLEET

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