

The Weather Watcher of the Inland Northwest

www.weather.gov/Spokane



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ISSUE:**

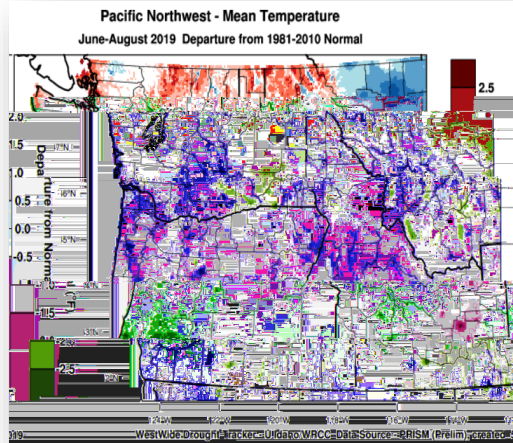
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Heat, Fires & Smoke—And the Lack of it

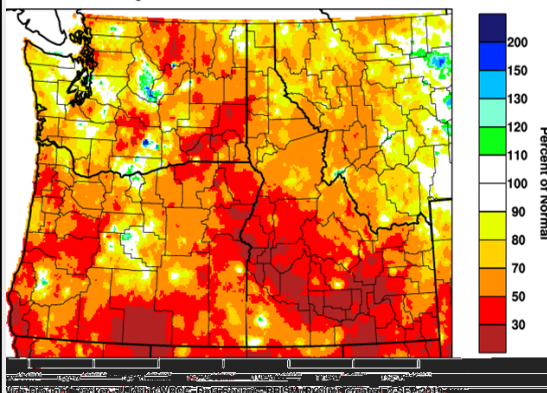
Number of 90 degree days June-August

| City | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 |
|------------|------|------|------|------|------|------|
| Spokane | 11 | 22 | 32 | 24 | 31 | 27 |
| Wenatchee | 26 | 33 | 47 | 34 | 44 | 38 |
| Pullman | 10 | 22 | 30 | 21 | 26 | 24 |
| Lewiston | 37 | 41 | 54 | 42 | 50 | 44 |
| Moses Lake | 35 | 38 | 52 | 35 | 51 | 42 |
| Omak | 33 | 41 | 53 | 35 | 48 | 42 |
| Winthrop | 13 | 25 | 37 | 22 | 35 | 30 |

This summer sure finished different compared to several summers of late. A lack of hot stretches was noteworthy which minimized the number of large fires and even the smoke over the region. The two fires of significant size were the 243 Command Fire on June 3rd/4th south of Vantage which burned around 20,000 acres. The other was the Williams Flats Fire southeast of Keller in August consuming around 45,000 acres. The table above shows the number of 90° or warmer days June through August compared to the past 5 summers. Despite the lack of 90° days, most areas experienced normal to slightly above normal temperatures this summer as seen in the mean temperature departures from normal in the figure to the right. Rain totals for the summer were quite variable due to several thunderstorm episodes resulting in drenching rains for some while not for others. Overall, the region as a whole had a drier than normal summer as shown in the figure below with the precipitation percent of normal for the Pacific Northwest. ☀️ *Jeremy Wolf*



Pacific Northwest - Precipitation
June-August 2019 Percent of 1981-2010 Normal



NWS SPOKANE OPEN HOUSE

SEPTEMBER 21ST, 2019
2601 N RAMBO RD.
10AM-4PM

**WEATHER
TALKS**

**OFFICE
TOURS**

**BALLOON
LAUNCHES**

Editor's Notes

Autumn typically arrives quickly in the Inland NW as cooler temperatures arrive with an increase in precipitation. We may be encounter more foggy or soggy morning commutes. Some may also experience one or more rounds of snow before the official start of winter.

September is recognized as National Preparedness Month. It's a good time to start planning and prepping for winter weather & natural hazards. Check "Fall Reminders" on what you need to do to prepare.

The Autumn Equinox will be Monday, September 23, 2019 at 12:50 AM PDT. After this date, the length of the darkness will increase into December.

Keep in mind, Daylight Saving Time lasts through October and ends on Sunday morning, November 3, 2019.

We're always looking for new ideas and stories for our publication. Please send to nws.spokane@noaa.gov.

Newsletters are available on the NWS Spokane web page.

The main purpose of this publication is to keep our readers informed about NWS services and programs, and recognize those who help us with our mission, including weather spotters, observers, media, emergency managers, and government agencies.

All articles are written by the NWS staff. A big thanks goes to Jeremy Wolf, Jenn Simmons & Ron Miller for their help.

Follow NWS Spokane on Facebook and Twitter!

Fall Reminders...

Observers: When sub-freezing temperatures are expected, please winterize your rain gauge. Remove the funnel & inner tube and bring indoors. Review the rules on observing and measuring snow through the training shows @ www.cocorahs.org

Spotters: Fall weather should bring more active and wet weather. Look for spotter & observer training dates posted on the NWS Spokane web page. Please report your 1st snowfall of the season. Then after that – let us know when any significant snowfall occurs.

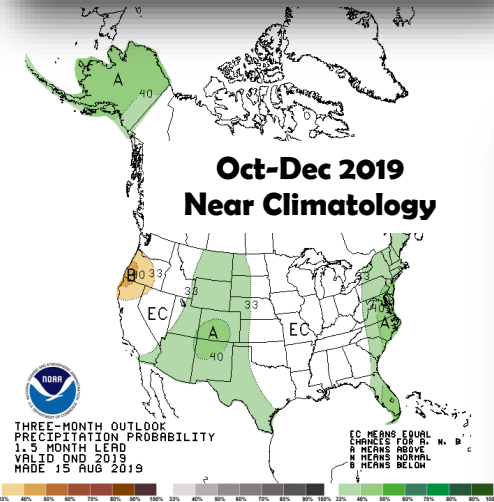
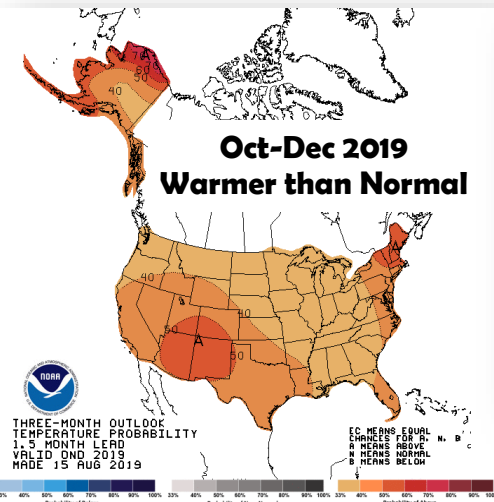
ALL: Time to prepare for the changing seasons. Get your home and vehicle winterized. Check the batteries in your smoke detectors and restock your first aid kits. Be prepared for any hazard. Update your emergency plan and practice it with your family. And don't forget your pets! ☀



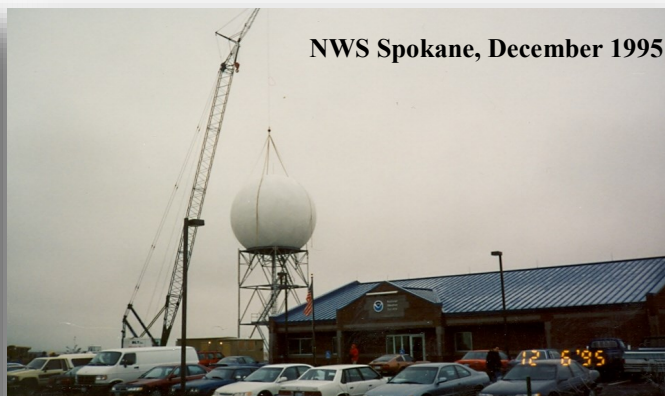
Watch : Conditions are favorable for severe or hazardous weather around the watch area. **CAUTION—Watch the Sky!**

Warning : Severe or hazardous weather is likely or is occurring in the warned area. **DANGER—ACT NOW!**

Fall 2019 Outlook



Radar Updates



It's been close to 25 years since the radar dome has been moved on the Spokane Doppler weather radar. The picture above was the installation weather radar in December 1995. The picture below was the pedestal replacement in July 2019. The new installed parts will keep the radar running for decades to come. ☀ *R Miller*



Mudslides

Heavy rains from thunderstorms lead to flash flooding and debris flows in many locations this summer across parts of ern Washington.



A couple events occurred on July 2nd on Highway 97 and parts of South Lakeshore Drive near Lake Chelan. This led to road closures and traffic detours until the mud and debris could be cleared. ☀

Summer 2019 in Review

June was a rather quiet month except on the 26th and 27th when strong to locally severe thunderstorms struck the region. In Wenatchee manhole covers were blown off with up to a foot of water coming out of the sewers. Stehekin received 1.48” of rain with 1.44” in Entiat. Thunderstorms brought wind gusts of 45-55 MPH around the Lewiston area with downed trees in Culdesac and downed power lines in Lapwai, Clarkston, and Lewiston. A couple of trees were also reported downed in Coeur d’Alene and Rathdrum. Also in June there were a few hot spells with highs in the 90s on the 13th breaking a few temperature records for the date.

Several more significant thunderstorm events hit the region in **July**. On the 2nd thunderstorms with heavy rain and small hail struck areas around Chelan, Waterville, and Grand Coulee. Storms produced as much as 1.00-1.50” of rain in one hour leading to flash flooding and debris flows. A large mudslide on Highway 97A north of Entiat sent mud across the road as high as seven to eight feet deep closing the highway for nearly 24 hours. Another mudslide closed Highway 2 east of Waterville with another slide reported on Highway 150 between Chelan and Manson. On the 5th thunderstorms in Lewiston brought a 48 MPH wind gust. On the 7th a stationary thunderstorm in Metaline Falls dumped 1.50” of rain along with hail covering the ground.

The main lightning event of the summer, and likely one of the biggest events in many years hit the region on the 23rd and 24th with over 28,000 cloud flashes and 3,500 cloud to ground lightning strikes. The event started with hot temperatures with many areas in the 90s before a dynamic low pressure system triggered the abundant show of lightning. North-



Lightning @ Lakeland Village
July 23, 2019

east Washington into the Idaho Panhandle was hard hit with numerous trees downed around Spokane, Priest Lake, Sandpoint, and Bonners Ferry. This resulted in damage to vehicles, homes, cabins, and over 19,000 without power! Numerous fires started from the combination of lightning, downed power lines, and transformers shorting out. Wind gusts up to 62 MPH were recorded at Spokane. Early warning prompted the evacuation of an outdoor concert at Northern Quest Casino. In the Moses Lake area winds gusted to 50 MPH with patchy blowing dust and fire starts.

August started with more active weather. The Williams Flat Fire southeast of Keller was started by lightning on the 2nd as a weak weather system brought about 100 lightning strikes to the region. The hottest weather of the summer occurred for many from the 5th through the 8th with high temperatures in the mid 90s to as hot as 104° which was recorded in Moses Lake, Omak, and Lewiston. Another significant thunderstorm event occurred on the 10th and 11th with impressive rain totals including 3.91” Colbert, 3.50” Newman Lake, 3.01” near Ruby, and 2.93” in Chattaroy. Thunderstorms brought large hail as well with Ping Pong ball size near Fernan Lake Village, quarter size in Plummer, and nickel size in Athol and Worley. Downed trees and flooding was reported in Saint Maries with tree limbs on power lines in Pomeroy. Meanwhile the Williams Flat Fire went from very active to getting drenched with several road washouts as the fire got hit by heavy rain from a storm on the 10th and again on the 11th. In Central WA, a CoCoRAHS observer four miles south of Wenatchee recorded 2.54” of rain causing a debris flow with reports of flooded streets in downtown Wenatchee. Water flowed ankle deep across Highway 2 near Waterville and in a home. ☀️ *Jeremy Wolf*

| Summer Weather Statistics | | | | |
|---------------------------|-------|-------|-------|-------|
| Wenatchee Water Plant | Jun | July | Aug | Total |
| Avg High Temp | 81.0 | 85.1 | 88.5 | 84.9 |
| Departure from Norm | +1.2 | -3.1 | +0.9 | -0.3 |
| Avg Low Temp | 55.2 | 59.6 | 60.9 | 58.6 |
| Departure from Norm | -0.4 | -1.9 | +0.4 | -0.6 |
| Total Precip | 1.11 | 0.09 | 0.71 | 1.91 |
| Departure from Norm | +0.45 | -0.25 | +0.52 | +0.72 |
| Total Snowfall | 0.0 | 0.0 | 0.0 | 0.0 |
| Departure from Norm | 0.0 | 0.0 | 0.0 | 0.0 |
| Lewiston Airport | Jun | July | Aug | Total |
| Avg High Temp | 81.2 | 89.0 | 91.3 | 87.2 |
| Departure from Norm | +2.7 | -0.3 | +2.5 | +1.6 |
| Avg Low Temp | 54.9 | 60.0 | 62.4 | 59.1 |
| Departure from Norm | +1.5 | +0.4 | +3.2 | +1.7 |
| Total Precip | 0.99 | 0.24 | 0.26 | 1.49 |
| Departure from Norm | -0.25 | -0.42 | -0.43 | -1.10 |
| Total Snowfall | 0.0 | 0.0 | 0.0 | 0.0 |
| Departure from Norm | 0.0 | 0.0 | 0.0 | 0.0 |
| Spokane Airport | Jun | July | Aug | Total |
| Avg High Temp | 76.4 | 81.6 | 84.6 | 80.9 |
| Departure from Norm | +2.6 | -1.7 | +1.7 | +0.9 |
| Avg Low Temp | 52.4 | 57.2 | 59.5 | 56.4 |
| Departure from Norm | +2.0 | +0.9 | +3.7 | +2.2 |
| Total Precip | 0.44 | 0.52 | 0.48 | 1.44 |
| Departure from Norm | -0.81 | -0.12 | -0.11 | -1.04 |
| Total snowfall | 0.0 | 0.0 | 0.0 | 0.0 |
| Departure from Norm | 0.0 | 0.0 | 0.0 | 0.0 |

Remember your Autumn Spotter Checklist

First Snow of the Season!!!

Reduced Visibility:
under a mile due to smoke, fog...

Strong Winds:
30mph+ or damage

Hail: pea size or larger

Tornado or Funnel Cloud

Heavy Rain:
Showery: 1/2" + in 1hr
Steady: 1" + in 12hr/1.5" + in 24hr

Snow:
2"+ valleys & 4"+ mountains

Any Mixed Precipitation

Any Flooding

Travel Problems or Damage:
due to severe/hazardous weather

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National
Weather Service
2601 N Rambo Rd
Spokane, WA 99224
(509)-244-0110

Trivia: Does NWS Spokane have a weather blog?