YOUR NATIONAL WEATHER SERVICE SPOKANE QUARTERLY REPORT

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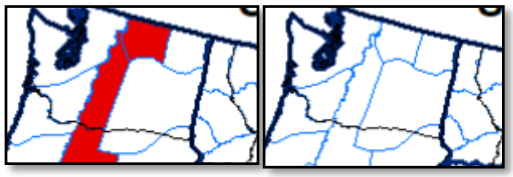
The Weather Watcher
of the Inland Northwest

www.weather.gov/Spokane

Fire Season

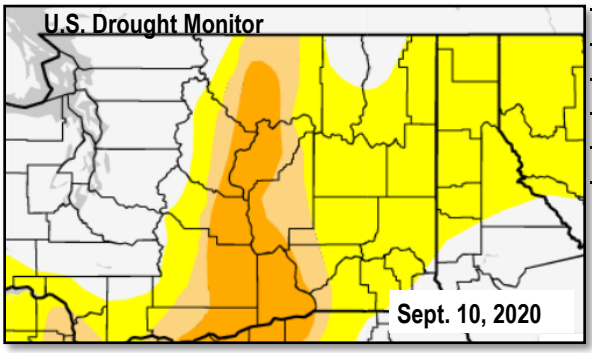


September Outlook — October Outlook

Fire season was slow to ramp up this year, similar to the summer heat. Although when it did arrive, it came back with a vengeance. Even though lightning and precipitation was spotty late this summer, the gusty winds and dry conditions increased the threat and fanned the flames of several wild fires across the Inland NW, especially the recent Labor Day wind event that brought gusts of 40 to 50 mph to the region. Estimates show the majority of the acreage burned was over brush and grasslands. This lead to many fast moving, hot fires with shorter durations. There were a few notable timber fires in steep terrain that lasted longer, such as the Palmer, the Chickamin, and the Greenhouse fires.

Significant fire potential looks to decrease by October, as seen in the charts above. With the coming rains this fall, it will be important to monitor these burn areas and be alert for any flooding impacts especially during times of intense precipitation. ☼

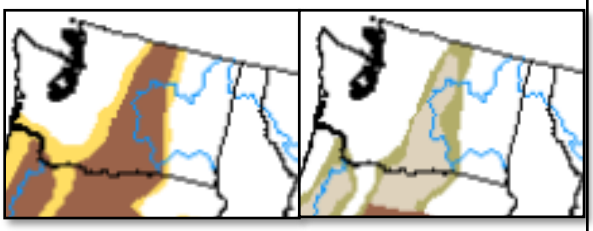
Drought



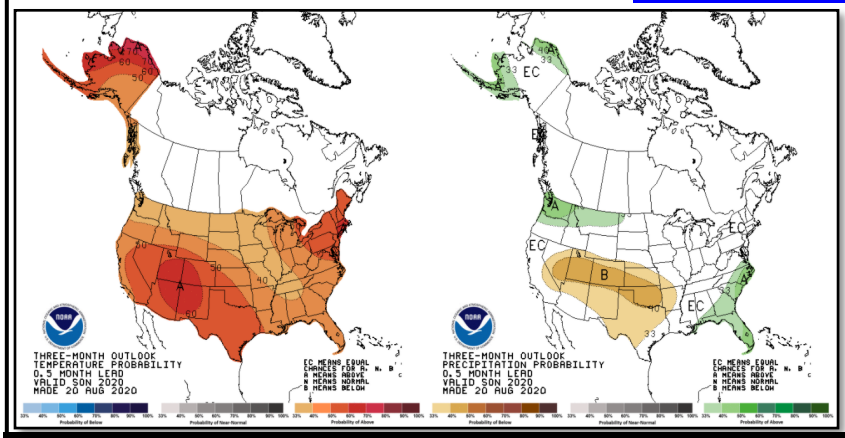
Drought conditions have been quite pronounced across central Washington this year, especially from Okanogan county south to the Oregon border. The lack of precipitation in July and August have allowed the dry conditions to expand across the Columbia Bain as seen in the low soil moisture and stream flows. Dryness will likely persist through September, although the long range forecast favoring above normal precipitation may help improve drought levels across the Inland NW by late fall. Rain dance anyone? ☼

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

1 Month Drought Outlook — Seasonal Drought Outlook



Fall Seasonal Outlook ~ La Niña Advisory



The NWS Climate Prediction Center is favoring a better chance of above normal temperatures with above normal precipitation for the three month period of September through November 2020 across the Inland NW and even into parts of MT. ☼

Want to report precipitation? Check out CoCoRaHS at *www.cocorahs.org*

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Editor's Notes

The taste of autumn is in the air especially with the early morning chill and watching the foliage change from green to amber and gold. Fall tends to be a short season across the Inland NW. Weather hazards shift from fires, smoke and dust to rain and snow in a matter a few short months. This reminds up to stay prepared as disasters can strike, sometimes with little to no warning. September is National Preparedness month and it's a good time to take stock and get ready for the upcoming season.

The Autumn Equinox will be arriving on Tuesday, September 22 at 6:30 am PDT. This marks the equal time between day and night. After this date, expect shorter day hours and longer nights

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.

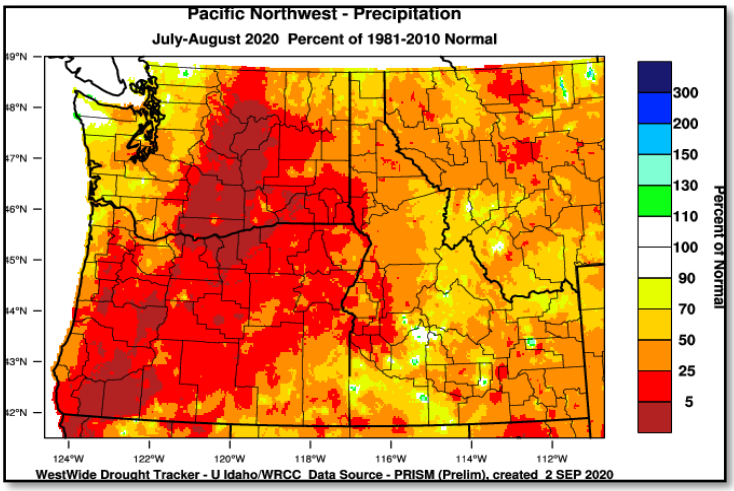
All articles are written by the NWS staff. A special thanks goes to Jeremy Wolf for his contributions.

Summer 2020 in Review

This summer turned out to be a dry one, especially in July and August. For Spokane only .07" fell during this two month period which was the 7th driest on record. These weather records date back to 1881. The good news is that lightning was uncommon during these two months which kept wildfire smoke down compared to some of the recent smoky summers. Several dry frontal passages during the summer brought breezy to locally windy conditions.

While the summer was dry, June had the more active weather of the season. On the 8th, a funnel cloud was spotted near Hayden. On the 12th, strong thunderstorms hit Lewiston with penny sized hail and a funnel cloud reported. Quarter size hail hit the town of Asotin near the Blue Mountains. On the 16th a thunderstorm produced a month's worth of rain in just over one hour in Moses Lake with 0.74". On the 24th, severe thunderstorms struck northeast Washington and north Idaho on the 24th. Large hail was reported in Marcus, Sullivan Lake, and Naples with hail ranging from nickel to ping pong size (0.88-1.50" in diameter). Meanwhile on Lake Pend Oreille, a 21 foot boat with 10 people capsized with one fatality. Strong winds also hit Priest Lake with multiple trees down reported in the Grand View area. Lastly, a funnel cloud was reported near Ruby.

After the active June, the weather pattern was generally quiet for the remainder of the summer. Here is the percent of normal precipitation for July and August with many areas in central Washington receiving a trace or less of rain which was <5% of normal.



The region's first warm spell finally arrived in mid-July with Spokane recording its first 90 degree day of the season on the 16th, just five days shy of the July 21st record for the latest 90 degree day. A couple heat waves would soon follow with triple digits temperatures to close out July. Some of the hottest readings included: Moses Lake with 109°F, Ephrata 107°F and Omak 106°F. The second heat wave occurred from Aug 16-18th with Lewiston one of the warmest spots reaching 108°F. The night time lows were abnormally mild as well. Spokane recorded a low temperature of 75°F on the 18th making it the warmest August low temperature ever on record. The most active period of the month arrived as the hot spell came to an end. The Palmer Fire near Loomis grew rapidly on the 18th under hot, dry, and windy conditions, eventually consuming nearly 18,000 acres and 37 structures by month's end. On the 19th clusters of thunderstorms developed over southeast Washington into north Idaho in the morning which led to lightning with little in the way of rainfall. Dry, very warm and locally breezy weather closed out the end of the meteorological summer 2020. ☼ *Jeremy Wolf*

Summer Weather Statistics

Wenatchee Water Plant	Jun	Jul	Aug	Total
Avg High Temp	78.0	87.9	89.9	85.3
Departure from Norm	-1.8	-0.3	+2.3	+0.1
Avg Low Temp	57.2	60.6	61.3	59.7
Departure from Norm	+1.6	-0.9	+0.8	+0.5
Total Precip	0.23	0.00	0.00	0.23
Departure from Norm	-0.43	-0.34	-0.19	-0.96
Total Snowfall	0.0	0.0	0.0	0.0
Departure from Norm	0.0	0.0	0.0	0.0
Lewiston Airport	**Jun**	**Jul**	**Aug**	**Total**
Avg High Temp	76.9	89.5	90.5	85.6
Departure from Norm	-1.6	+0.2	+1.7	+0.1
Avg Low Temp	55.4	59.9	61.5	58.9
Departure from Norm	+2.0	+0.3	+2.3	+1.5
Total Precip	2.22	0.13	0.13	2.48
Departure from Norm	+0.98	-0.53	-0.56	-0.11
Total Snowfall	0.0	0.0	0.0	0.0
Departure from Norm	0.0	0.0	0.0	0.0
Spokane Airport	**Jun**	**Jul**	**Aug**	**Total**
Avg High Temp	71.9	84.1	85.0	80.3
Departure from Norm	-1.9	+0.8	+2.1	+0.3
Avg Low Temp	51.5	57.1	58.3	55.6
Departure from Norm	+1.1	+0.8	+2.5	+1.5
Total Precip	0.88	0.05	0.02	0.95
Departure from Norm	-0.37	-0.59	-0.57	-1.53
Total snowfall	0.0	0.0	0.0	0.0
Departure from Norm	0.0	0.0	0.0	0.0

ANSWER: October—average temperatures drop 10 to 15 degrees from Oct 1 to Oct 31; that's the most abrupt change all year.

Office Anniversary

The Spokane National Weather Service Forecast (NWS) Office celebrates its 25th. The office building off of Rambo Road was constructed in early 1995. The administrative staff moved into the building in July 1995, yet the operations remained over at the Spokane airport. On September 1st at midnight, the official observations switched from NWS human observers to the Automated Surface Observing System (ASOS). After that, a Federal Aviation Administration (FAA) contractor took over responsibility for augmentation of the ASOS observations and NWS personnel moved to our current office location to continue forecast responsibilities. September 1, 1995 marks the official transition and start of the Spokane NWS Forecast office.

To mark this anniversary, we have updated our web page with an Office History segment and office picture slideshow to showcase the many transitions of weather observations and forecasting from the Spokane office. ☼

2601 N Rambo Road, Spokane WA

Staff News

Big changes arrived this summer with the office staff. There are now three new lead forecasters: Steve Bodnar and Jeremy Wolf received promotions on station while Charlotte Dewey arrived recently from the Salt Lake City office where she was a forecaster. In addition, another forecaster has just recently joined the staff, Rebekah Cheatham. She recently graduated from the University of South Alabama in Mobile. Welcome aboard Charlotte and Rebekah! Congratulations Steve and Jeremy! Good luck with your new positions! ☼

Citizen Scientists

Enjoy monitoring the weather? Interested in participating in the science? Well, citizen science may just be for you! Citizen science is a form of open collaboration in which anyone can take part in the scientific process to address real-world problems. You can help by taking real-time weather observations, alerting officials about severe weather occurring where you are, and contributing to research using an app on your phone. There is a need for more weather and climate reports regionally and nationally. Here are some ways you can help:

The **Community Collaborative Rain, Hail, and Snow Network** (CoCoRaHS) is a volunteer network of observers who measure precipitation from their backyard. Any age can volunteer. CoCoRaHS sells low cost equipment to help volunteers get started. Observers enter their observations onto a website. Data is used by a wide variety of users ranging from meteorologists and hydrologists to insurance adjusters and engineers. Learn more at cocorahs.org

Condition Monitoring Observer Reports (CMOR) is a way to share and report drought-related conditions and impacts within the U.S. This is a nationwide service provided by the National Drought Mitigation Center, based at the University of Nebraska, in partnership with the National Integrated Drought Information System. Learn more at droughtimpacts.unl.edu/ConditionMonitoringObservations.aspx

Help keep your community safe by volunteering to become a trained **Weather Storm Spotter** for the National Weather Service. Weather spotters report hazardous weather to the NWS, which aids the warning process. Volunteers are trained by NWS meteorologists to identify and describe hazardous weather, including severe thunderstorms, wind storms, blizzards, tornadoes, and floods. Free local and online training is available. Learn more at nws.noaa.gov/skywarn/ or weather.gov/otx/Spotter_Resource_Page ☼

NWS Spokane

Meteorologist In Charge
Ron Miller

Warning Coordination Meteorologist
Andy Brown

Science Operations Officer
Travis Wilson

Administrative Assistant
Jodi Fitts

Information Technology Officer
Todd Carter

Service Hydrologist
Robin Fox

Observation Program Leader
Mark Turner

Lead Forecasters
Jon Fox
Greg Koch
Steve Bodnar
Jeremy Wolf
Charlotte Dewey

Meteorologists
Rocco Pelatti
Laurie Nisbet
Jeffrey Coté
Steven Van Horn
Joey Clevenger
Jenn Simmons
Valerie Thaler
Rebekah Cheatham

Electronic Systems Analyst
Mike Henry

Electronic Technicians
Paul Kozsan
Eric Dizon

Facilities Technician
Mike Belarde

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Remember your Autumn Spotter Checklist

First Snow of the Season!!!
Reduced Visibility: under a mile due to fog, snow...
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

National Preparedness Month is recognized each September to promote family and community disaster planning now and throughout the year. The 2020 theme is: "Disasters Don't Wait. Make Your Plan Today." For more details, see www.ready.gov/september

1. Make a Plan—How will you communicate?
2. Build a Kit—Gather supplies to last several days.
3. Prepare for Disasters—Know what risks are near you.

Yes, it's right around the corner. This is the time of the year to prepare for the First Snow of the season. Don't be caught off guard. Prepare yourself and your vehicle now when the weather is pleasant. Remember, the first snow of the 2019-2020 season came in late September! ☼

The Weather Watcher
Of the Inland Northwest

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Question: Which month does the Inland NW experience the biggest change in average temperatures?