YOUR NATIONAL WEATHER SERVICE SPOKANE QUARTERLY REPORT

VOL XXVI, ISSUE 1
MARCH 2021

The Weather Watcher

of the Inland Northwest

www.weather.gov/Spokane

INSIDE THIS ISSUE:

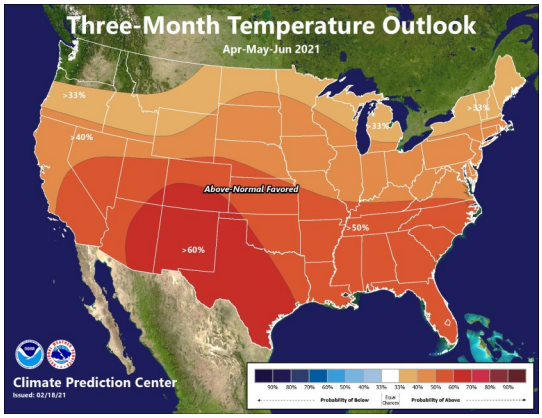
Community Collaborative Rain, Hail & Snow Network

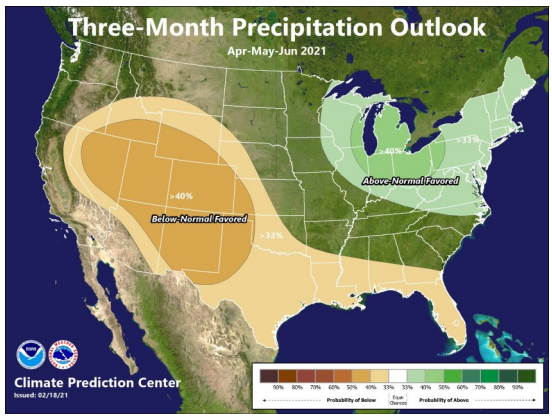
During the month of March, all 50 states compete in the national CoCoRaHS March Madness competition to see who can recruit the most new volunteers. In March 2020, Washington recruited four new volunteers with only one in Idaho. As there is always a need for a greater number of volunteers, let's use this year's March not only as a way to grow our CoCoRaHS community, but also observations of precipitation in the Inland Northwest. Widespread coverage of CoCoRaHS observations helps tremendously due to the variability in precipitation. The National Weather Service, plus many other organizations and individuals, use the data and observations on a daily basis. The NWS Spokane office forecast area covers a total 21 counties in eastern Washington and the Idaho Panhandle. Of these, there are 5 or less active observers in ten counties, which includes none in Lewis county. There are many areas that are not covered by regular precipitation observations and we could use some help! If you would like to join CoCoRaHS, or help recruit a friend or relative, check out cocorahs.org. In addition, the NWS Spokane website has a new CoCoRaHS page that includes easy access to all Inland Northwest daily precipitation, snowfall, and snow depth! Bookmark www.weather.gov/otx/cocorahsOTX for links to these daily reports and more information.

Thank you to all the current Inland Northwest CoCoRaHS volunteers who help our office on a daily basis! We appreciate each and every report! ☼ *Jenn Simmons*

Spring Seasonal Outlook—April through June

After a snowy and cool February into early March, the April-June outlook shows equal chances of at, below and above normal temperature and precipitation. www.cpc.noaa.gov





Share your precipitation reports! Check out CoCoRaHS at *www.cocorahs.org*

Editor's Notes

Spring forward. Spring showers. Buttercups, grass widows and robins galore. These are sure signs of spring across the Inland Northwest. It's a time of renewal and a restart. The change of seasons also brings new weather impacts. These impacts will be less on snow but more on snowmelt and flooding concerns. Flood Awareness Week is March 22-26. Also less on fog and more on thunderstorms packed with lightning, heavy rain, hail and strong winds. Lightning Awareness Week is June 20-26.

The Spring Equinox will arrive Saturday, March 20th at 2:37 AM. This marks the equal time between day and night. After this date, expect longer daytime hours.

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, and Jenn Simmons for all of their contributions.

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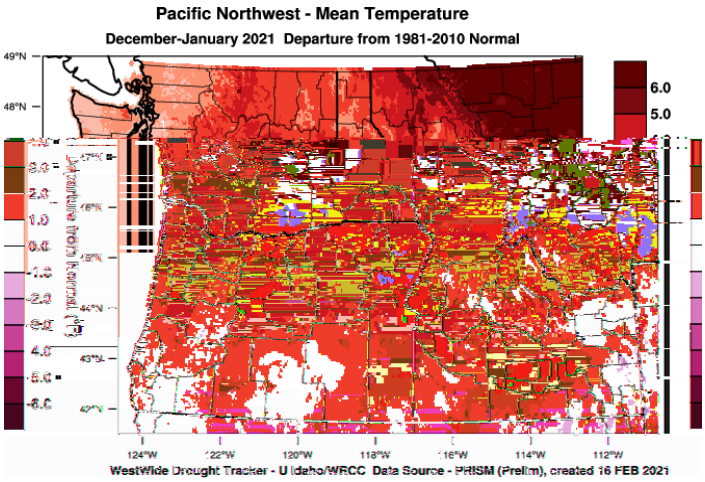
MARCH 2020

Winter 2020-2021 in Review

A La Niña winter was present across the Inland NW, but were conditions typical of La Niña this winter? Well every La Niña winter is different and this one had some similarities to what would typically occur. One being the near to above normal snowfall in the mountains. Second, several storms dropping in from the northwest. However a little unusual was the warmups following the lower elevation snow melting much of what fell in the days that followed. In fact December and January finished with warmer than normal temperatures as shown below.

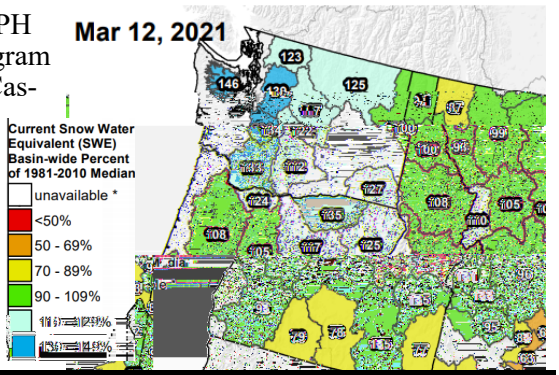


December started off on a quiet note before a more active pattern set up for the middle to end of the month. Light to locally moderate snow fell in many areas from the 11th through the 17th giving many areas increased hope for a White Christmas. But then milder air and windy conditions melted the snow in several areas on the 21st. Lewiston and Moses Lake warmed into the upper 50s, not exactly typical weather for the first official day of winter. Wind gusts of 40-55 MPH were recorded in several areas including 55 MPH in Pullman, 53 MPH in Athol, and 48 MPH at the Spokane Airport. The winds led to a few downed trees around Leavenworth and Plain leading to some power outages. A few power poles were also uprooted in Pullman. While the warmer temperatures and windy weather melted much of the snow, the opposite was true in the Methow Valley where 7-12" fell. But not all hope was lost for a White Christmas. While many areas woke up to bare ground Christmas morning, snow began to fall in the late afternoon and evening. In fact Spokane recorded 3.7" by midnight making it the 2nd snowiest Christmas Day on record. The biggest snow producer of the winter for much of Northeast Washington into the Idaho Panhandle occurred on the 30th where widespread 6-12" fell. The hardest hit areas include Sandpoint, Rathdrum, and Spirit Lake. Another 12" report came in from just north of Moscow. The snow contributed to several slide-offs across the region.

Yet another warm up led to snow melting away for many areas for the first half of **January** as a wet and mild pattern set up with frequent rounds of precipitation arriving from the southwest. For the first 13 days of the month, precipitation totals over northeast WA into the ID Panhandle were impressive with 8.62" 10 miles NNE of Sandpoint, 6.17" in Clayton, and 5.17" for Priest River. While rain was common for most, heavy snow once again fell for some areas in the Cascades. Holden Village (near the upper end of Lake Chelan) measured 55" with Mazama coming in with 34". The mild and wet pattern came to an abrupt halt with a strong front passage on the 13th. High winds resulted in numerous downed trees and powerlines across the Spokane area up into the ID Panhandle with localized high winds elsewhere. A power pole also broke in half in Omak. Highway 95 near Tensed was blocked due to downed powerlines. Spokane Airport tied a record for its strongest non-thunderstorm wind gust with 71 MPH. Other noteworthy gusts include 74 MPH in Thorton, 70 MPH in Post Falls, 66 MPH in Athol, 65 MPH in Silcott Island, 62 MPH in Wenatchee, and 61 MPH in Coeur d'Alene. There were two fatalities from the storm with over 100,000 customers losing power. The remainder of January brought much quieter weather.

February brought a more active winter pattern with several storms dropping in from the northwest. This translated to very impressive snow amounts in the Cascades and across the region In fact the WSDOT snow reports indicated 180" of snow during the month at Stevens Pass! By the end of the month avalanche danger in the Cascades became high to extreme with extended closures of Stevens and Snoqualmie Passes. A very frigid arctic air mass was another main story, but the bulk of the cold air went along and east of the Continental Divide where temperatures in Montana plummeted below -30°F with wind chills below -50°F. The Inland NW did however receive a piece of this cold air with wind chills down to near -10°F in Omak, Athol, and Coeur d'Alene. The cold air meant widespread snow for the region once Pacific moisture entered the picture with some of the higher amounts focused over southern Washington into the Lewiston and Kamiah areas. Over the five day period from the 12th-16th snow totals included 16" in Kamiah, 12" in Pullman, and 10" in Lewiston. A windy pattern set up towards the end of the month as a strong jet stream impacted the region. More gusty winds were reported. Late on the 21st and 22nd, wind gusts reached 76 MPH at Douglas Ingram Ridge in the Cascades, 57 MPH at Manson, 50 MPH in Pullman, and 49 MPH in Ephrata. ☼ *Jeremy Wolf*

Mountain Snowpack

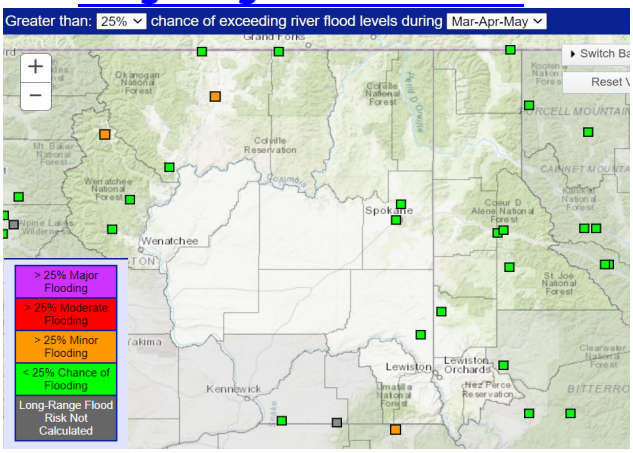


ANSWER: Fact: Being underneath a tree is the second leading cause of lightning casualties. Better to get wet than fried!

Spring Flood Outlook

Most of the Inland NW can expect a normal flood season. Yet the abundant snowpack in the Cascades, Kettle Range and Blue Mountains highlights an elevated flood potential in the surrounding river basins, including the Stehekin, Okanogan and Grand Ronde rivers. It depends on how fast the mountain snow melts and leads to runoff. Any rapid spring warm-up and/or heavy precipitation event can lead to rises on area rivers and streams. ☼ *Robin Fox*

Long Range Flood Outlook

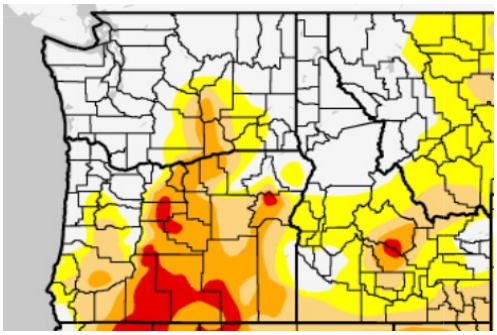


Winter Weather Statistics

Wenatchee Water Plant	Dec	Jan	Feb	Total
Avg High Temp	38.9	40.1	40.9	40.0
Departure from Norm	+4.1	+4.2	-2.5	+1.9
Avg Low Temp	28.2	29.5	26.6	28.1
Departure from Norm	+3.0	+4.1	-1.1	+2.0
Total Precip	1.07	2.12	1.18	4.37
Departure from Norm	-0.46	+0.79	+0.18	+0.51
Total Snowfall	4.9	5.2	6.2	16.3
Departure from Norm	-1.8	+1.2	+3.5	+2.9
Lewiston Airport	**Dec**	**Jan**	**Feb**	**Total**
Avg High Temp	43.6	45.0	41.4	43.3
Departure from Norm	+4.1	+3.4	-5.1	+0.8
Avg Low Temp	31.3	32.8	28.7	30.9
Departure from Norm	+3.3	+3.2	-2.2	+1.4
Total Precip	0.65	0.57	1.66	2.88
Departure from Norm	-0.32	-0.51	+0.88	+0.05
Total Snowfall	0.5	0.2	10.8	11.5
Departure from Norm	-3.0	-2.2	+8.7	+3.5
Spokane Airport	**Dec**	**Jan**	**Feb**	**Total**
Avg High Temp	36.2	37.8	34.7	36.2
Departure from Norm	+4.0	+3.4	-4.9	+0.8
Avg Low Temp	27.4	29.1	23.6	26.7
Departure from Norm	+4.9	+4.4	-2.8	+2.2
Total Precip	2.37	2.82	0.84	6.03
Departure from Norm	+0.07	+1.03	-0.49	+0.61
Total snowfall	17.8	3.5	11.8	33.1
Departure from Norm	+3.2	-7.9	+5.0	+0.3

U.S. Drought Monitor

The ample winter precipitation has decreased the drought threat from much of the Inland NW. Yet parts of south-central WA have seen limited precipitation and drought conditions will likely persist through the spring and even this summer. ☼



More Virtual Training

Expect spring spotter training dates in the months to come. The training will focus on convection, flooding and thunderstorms. We'll also include the basics on CoCoRaHs and precipitation measurements. This training is open to current weather spotters who would like a refresher course and any new recruits who are weather enthusiasts eager to learn more. Stay tuned to the NWS Spokane web page for the latest schedule. Current spotters and observers will receive emails on training when it has been scheduled for your county. If you want to learn more about being a weather spotter, see *https://www.weather.gov/otx/Spotter_Resource_Page* for details. ☼

NWS Spokane

Meteorologist In Charge
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Andy Brown

Science Operations Officer
Travis Wilson

Administrative Assistant
Jodi Fitts

Information Technology Officer
Todd Carter

Service Hydrologist
Robin Fox

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Mark Turner

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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
Ken Daniels

Electronic Systems Analyst
Mike Henry

Electronic Technicians
Paul Kozsan

Facilities Technician
Mike Belarde

Remember your Spring Spotter Checklist

Tornado or **Funnel Cloud**
Hail: pea size or larger
Strong Winds: 30mph+ or damage
Any Flooding
Reduced Visibility: under a mile due to fog, snow...
Heavy Rain: Showery: 1/2" + in 1hr Steady: 1"+ in 12hr/1.5"+ in 24hr
Snow: 2"+ valleys & 4"+ mountains
Any **Mixed Precipitation**
Travel Problems or Damage: due to severe/hazardous weather

Lightning

The Inland NW can experience lightning in every season of the year, but by far the most active season is Spring. There are on average 20 thunderstorm days each year, peaking in the afternoon and evening hours. Lightning can strike even several miles from the storm. Remember, when **Thunder Roars Go Indoors!** ☼

Flooding

The most active time of the year for flooding is the late winter and spring due to the melting of the mountain snowpack. Flooding can happen in the summer and fall from intense thunderstorm rains, especially on steep slopes. Remember, avoid water covered roadways. **Turn Around Don't Drown!** ☼

The Weather Watcher

Of the Inland Northwest

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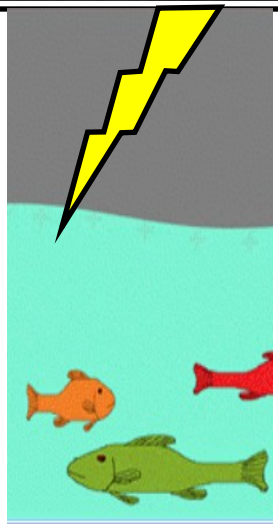
Lightning and Fish

Bodies of water are frequently struck by lightning. So why don't all the fish die?

Before a lightning strike, a charge builds up along the water's surface. When lightning strikes, most of electrical discharge occurs near the water's surface.

Most fish swim below the surface and are unaffected. Although scientists don't know exactly just how deep the lightning discharge reaches in water, it's very dangerous to be swimming or boating during a thunderstorm. ☼



Staff News

Electronics Technician Eric Dizon received a promotion to a Electronic Systems Analyst at the Sterling, VA Weather Forecast Office. This was a great landing spot for him, since the rest of his family lives only 30 minutes away! Congratulations to Eric and safe travels on his cross-country adventure. We wish him the best of luck!

NWS Space Weather

Space Weather impacts numerous facets of everyday life, from where airplanes can safely fly, to how accurately a farmer plows his field. In addition, there are a large variety of phenomena that are driven by the variability of the sun over periods ranging from hours to years. NWS Space Weather Prediction Center (SWPC) provides information for novices and experts alike about the impacts and phenomena of Space Weather. Find out more at www.swpc.noaa.gov/ ☼

THANK YOU

We want to send a big Thank You to all of our weather spotters and observers. We appreciate all of the reports you send to us, especially after big events from snow reports, wind reports and daily snow water equivalent measurements. Even when we email or call you, you are willing and able to support our request. Keep up the terrific work! ☼

Myth or Fact? If outside in a thunderstorm, you should seek shelter under a tree to stay dry.