

The Weather Watcher of the Inland Northwest

www.weather.gov/Spokane



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Facebook and NWS

Want to be a “friend” of the National Weather Service Spokane? Now you can—if you have a Facebook account. The National Weather Service has joined the social media world. Facebook has a massive and highly engaged audience—even in eastern Washington and north Idaho.

Every NWS office in the country has been given a one year experimental requirement to initiate, maintain, and utilize a Facebook account. There are many goals to this project. Overall, this project should surely get the NWS much more timely reports, make outreach expand to a much larger audience, and create a new avenue to keep the NWS organization relevant in a very digitally interconnected world. Facebook is a powerful tool with many benefits. Look for updates and posts on various topics including climate, storm reports, and long range forecasts.

This service is a supplement to the more traditional avenues to release NWS products and statements. NOAA Weather Radio and NWS Spokane web page at <http://www.nws.gov/spokane> remain the official sources of NWS watches, warnings and statements. They are continuously updated with the most current information. In addition, the NWS Spokane has communications systems in place to “chat” live with NWS partners such as TV meteorologists, emergency managers, and amateur radio operators. The NWS meteorologists work around the clock monitoring the weather for the Inland Northwest. ☀ Mike Fries & Ellie Kelch



Weather Updates and Cell Phones

With the amount of wicked and destructive weather across parts of the country this spring, it’s no surprise that the public has an increased interest in severe weather—especially those with smart phones. The demand for weather apps for smart phones is on the rise.

Most weather apps are based on the data sent out by the National Weather Service, which the agency is happy to share. There is a need for weather information and weather alerts. Many weather apps combine the NWS data and radar images to give as close to real-time updates as possible. There are some apps and computer programs that allow you to monitor the NOAA weather radio without even having the actual device.

Most Americans rely on radio or TV as their main source of weather news in a weather emergency. But now others are reaching for their cell phones to get the latest news. By next spring the NWS, in cooperation with FEMA, will launch a new program that will let counties broadcast warnings to every cell phone in a threatened area by sending them only from the nearest cell towers. It is called the Personal Localized Alert Plan or PLAN. For more information, <http://www.fema.gov/news/newsrelease.fema?id=54882> ☀ Robin Fox

Funnel cloud near Pullman

Thunderstorms are a spring occurrence across eastern Washington. On May 29th, a particular thunderstorm produced an amazing sight. From his location in the Walmart parking lot in Pullman, WA, weather spotter John Kirkland captured several images of a funnel cloud descending from the storm. The funnel cloud most likely developed from a rotation within the storm cloud, but it never reached the ground. Thanks for sharing your image John! ☀ Robin Fox

Editor's Notes

Summer arrives June 21st at 10:16 am PDT. Let's hope we will experience many days of warm summer-like weather! It's one of the best times of the year for outdoor fun, like fishing, camping, hiking and biking. Remember—keep an eye to the sky when you're outdoors and find safe shelter if thunderstorms approach. **National Lightning Awareness Week** is June 19-25.

We are always looking for new ideas, pictures and stories for our publication. If you have any to share, please contact us at (509) 244-0110 or email nws.spokane@noaa.gov.

This newsletter and past issues are available online on our NWS Spokane web page. If you would like a paper copy, please contact us and we will be happy to put you on the mailing list.

The main purpose of this publication is to keep our readers informed about our 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 to Ron Miller, Bob Tobin, Katherine Rowden, Mike Fries, and Ellie Kelch for their help.

Save the Date—NWS Spokane Open House on October 1, 2011!!!



Spring 2011 in Review

Cold and Wet! That about summarizes the Spring of 2011 in the Inland Northwest. And while it's not unusual to have a cold and wet Spring in this part of the world, this one was a bit more than usual.

The month of **March** started off in usual fashion, with some light amounts of snow in the lower elevations. Moscow received 8.5" of snow on the 3rd. But given the cold snap at the end of February, temperatures in the mid 30s to mid 40s seemed more spring-like. The weather warmed into the lower 50s before a strong cold front moved through the area on the evening of the 13th, blowing down some large trees near Pullman. In general, there weren't many strong storms in March, but there was rain just about every day.

Lewiston had measurable rain (i.e. 0.01" or more) on 18 days, compared to an average of 11 days. Totals for the month were equally impressive, with most locations receiving well-above average rainfall for March. Five locations in the Cascades had their wettest March ever including Holden Village with 10" (old record 7.71"), Leavenworth with 7.13" (old record 5.68") and Mazama with 5.24" (old record 4.58"). Mudslides also closed Highway 2 west of Leavenworth.

The cold and wet weather persisted into **April**. The average high and low temperatures in Lewiston for April were almost identical to March. Storm after storm continued to roll through the area. None were exceptionally strong, just colder and more frequent than normal. Kellogg picked up an inch of snow on the 6th. On the following morning, the temperature in Pomeroy dropped to 19°F. On the 18th Spokane received 0.5" of snow in the morning and could only warm to a high of 43°F. A localized and somewhat freakish snow storm occurred on Mount Spokane on the 26th. More than 2 feet of snow fell in just a few hours, snapping and uprooting dozens of mature trees. The Greenbluff area also received 6" of snow.

Although slightly warmer, **May** really wasn't that much different from its preceding months. The rain and snow melt caused some flooding in the Cascades. Wenatchee Airport picked up 0.61" of rain on the 14th, while Ephrata received 0.53", both records for the day. On that same day, while heavy rains were falling in the Cascades and western Columbia Basin, warm air pushed into southeast Washington. Pullman hit a high of 81°F, a record for the day. That warm spell was short-lived, as the cold rains moved eastward. Spokane only reached a high of 47°F on the 16th with rain for most of the day. Another wet storm system rolled through the area on the 26th. Priest River had a rainfall total of 1.51" while Omak received 0.74", both daily records. Small streams began to flood with the combined rain and snow melt. Chewelah Creek came out of its banks and eventually flooded Highway 395. In its wake, cold air moved into the Inland Northwest. Ephrata set a record low temperature of only 35°F on the 27th and Chief Joseph Dam dropped to 29°F degrees.

There are a few stats that helps to put the Spring of 2011 in context...

- It was the wettest March-May ever in Lewiston and Pullman, and the 4th wettest ever in Spokane.
- Lewiston and Wenatchee both had their latest ever "first 70 degree day".
- Spokane had its latest ever "first 60 degree day" and may set its latest "first 80 degree day".

More information on the spring can be found at http://www.wrh.noaa.gov/otx/cases/Spring2011/Spring_2011.php

☀ Ron Miller

Spring Weather Statistics

Wenatchee Water Plant	Mar	Apr	May	Total
Avg High Temp	50.2	58.1	67.7	58.6
Departure from Norm	-4.7	-6.5	-5.4	-5.5
Avg Low Temp	32.5	36.8	45.6	38.3
Departure from Norm	-1.4	-4.0	-3.0	-2.8
Total Precip	2.13	0.02	1.94	4.09
Departure from Norm	+1.49	-0.49	+1.43	+2.43
Total Snowfall	0.4	0.0	0.0	0.4
Departure from Norm	-0.5	0.0	0.0	-0.5
Lewiston Airport	Mar	Apr	May	Total
Avg High Temp	53.7	54.8	65.6	58.0
Departure from Norm	-0.1	-6.8	-4.3	-3.7
Avg Low Temp	36.1	36.6	44.7	39.1
Departure from Norm	+0.5	-4.0	-2.2	-1.9
Total Precip	1.71	1.60	3.57	6.88
Departure from Norm	+0.59	+0.29	+2.01	+2.89
Total Snowfall	0.4	0.0	0.0	0.4
Departure from Norm	-0.7	-0.1	0.0	-0.8
Spokane Airport	Mar	Apr	May	Total
Avg High Temp	46.2	50.4	62.3	53.0
Departure from Norm	-2.4	-7.1	-2.9	-4.1
Avg Low Temp	32.3	32.7	41.8	35.6
Departure from Norm	+1.9	-2.8	-0.8	-1.3
Total Precip	3.25	1.81	1.83	6.89
Departure from Norm	+1.72	+0.53	+0.23	+2.48
Total snowfall	3.3	1.1	0.0	4.4
Departure from Norm	-0.3	+0.2	-0.2	-0.3

Summer Outlook

After a long cool and wet spring, many are asking “What about the summer?” or “Will summer ever arrive?” According to the NWS’s Climate Prediction Center, the rest of June looks to continue the current trend of cool and wet. Looking farther into the future, the three-month outlook for July, August and September shows near to slightly above normal temperatures and a greater chance of below normal precipitation. So yes, summer is expected to arrive to the Inland Northwest.

La Nina is fading. The cooler than normal sea-surface temperatures in the eastern equatorial Pacific Ocean have ended, and more neutral conditions are expected through the rest of the summer. The atmosphere has not responded to this change and seems to be lagging behind in the transition. As the seasons move from spring to summer, anticipate the switch to flip—with warm and dry summer weather upon us suddenly. For more information on long range outlooks, see <http://www.cpc.ncep.noaa.gov/> ☀ *Robin Fox*



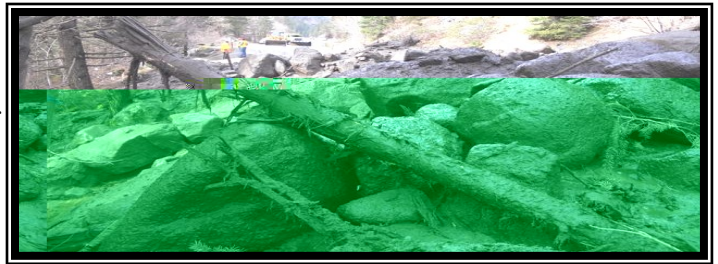
Chewelah creek flooding in Chewelah on May 27th.

River Flooding....

Our cool and wet spring continued the mountain snow accumulations later into the season with a slow mountain snowpack melt off. As of the end of May, the mountain snow water equivalent (SWE) across the Inland Northwest was running 160% to 200% of normal. The mid level snow pack has melted especially across the southern Idaho panhandle. But significant, record snow still can be found in the higher elevations of the Northern Panhandle and the Northern Cascades. The majority of area rivers have or are running at high levels—many close to flood stage. There have been many reports of mud and rock slides due to the increased runoff.

For the long range outlook, anticipate high river flows for several rivers basins through mid July, especially the Kootenai in North Idaho and some Cascade rivers. The main concern for the next several weeks will be boater safety. Expect swift currents and excess debris on the lakes and rivers with colder than normal water tempera-

Mudslide in Tumwater Canyon this spring.



tures. For more updates on the river levels, flooding and safety, see the NWS Spokane web page on **Spring Flooding 2011** at <http://www.wrh.noaa.gov/otx/hydro/SpringFlood2011/SpringFlood2011v2.php>. ☀ *Katherine Rowden*

Fire Season....

After comparing many of the past La Nina episodes, there are a few years that follow a similar cool and wet winter to spring pattern, including 1955-56, 1973-74, 2007-08. But it looks like the years that fit the best with the current trends are 1988-1989. During these analog years, the summer weather pattern kept a weak upper level trough of low pressure off the eastern Pacific Ocean for the summer months. This pattern would give an increased potential for wet thunderstorms and below to near normal temperatures. Then by September, the analog years indicated an upper level ridge building over the four corners area of the Southwest U.S., giving way to drier and warmer weather.

So what may happen for the summer 2011 fire season? For July and August, expect slightly cooler than usual conditions for most of the Inland Northwest, particularly for the Cascades with fewer and shorter hot spells. Anticipate a slow start to the fire season; the region is as much as four weeks behind due to the effects of lingering snowmelt and the cool and wet weather. This means the best chance for any significant wildfires may hold off until August. The lightning strike count looks to be less than usual for the summer. One to two periods of episodic lightning may be possible, with the first episode likely around the middle of July. Although fuels will likely still be in the “green.” Large timber fires may not be possible at the lower-mid elevations until the first part of August. The fire districts of northeast Washington east of the Kettle Range and into north Idaho should experience an average number of fire starts with below average number of acres burned. Keep track of the latest fire weather forecasts and outlooks at <http://www.wrh.noaa.gov/firewx/?wfo=otx> ☀

Bob Tobin

Answer: Since the Spokane radar was installed, the latest date for the first severe weather warning was June 7, 2010. Typically it occurs in April or May.

Remember your Summer Spotter Checklist

Tornado or Funnel Cloud

Strong Winds:
30 mph+ or damage

Hail: pea size or larger

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

Any Flooding

Reduced Visibility:
under a mile due to rain, dust...

Travel Problems or Any Damage: due to severe or hazardous weather.



The New Coastal Washington Radar

Washington's new coastal radar (KLGX) installation is slightly ahead of schedule. On May 27th, the construction crew was able to hoist the pedestal and radome on to the six section tower. The new coastal radar is being installed at Langley Hill, WA, approximately 3 miles east of Copalis Beach in Grays Harbor County or roughly 75 miles southwest of Seattle. The radar is expected to be commissioned by September 2011.

The goal of the new radar is increase the coverage along the Washington coast that is currently not visible to existing radars. This area stretches from the Olympic Mountains to the northern Oregon coast and offshore by up to 100 miles. Currently the NWS has four radar systems that provide coverage of Washington. They are located in the Seattle, Spokane, Portland, and Pendleton areas. Due to the unique terrain features in Washington State these radar systems are subject to radar beam blockage. This new radar will help detect and track the Pacific storms earlier as they move across western Washington. This useful radar data will help improve the forecasts and warnings for not only for the coast but for the Inland Pacific Northwest as well. For more information, please visit http://www.wrh.noaa.gov/wrh/washington_coast_doppler_radar/ ☀ Robin Fox



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!

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Trivia: What is the latest date for the first severe weather warning of the season for the Spokane area?