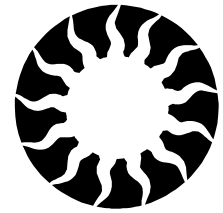


Weather Watcher

www.wrh.noaa.gov/Spokane



What happened to the Snow?

With temperatures cooler than normal and a blanket of snow all winter long, the casual weather observer may not have noticed that the storm systems that usually traverse the Inland Northwest were few and far between. A persistent ridge of high pressure centered over the Pacific Northwest diverted storm systems both north and south of the area. The few storms which made it to Eastern Washington and Northern Idaho contained only light amounts of precipitation. The infrequency of precipitation has led to large departures from normal in the amount of winter time snow that usually takes place in both valley and mountain locations. Mountain snow pack and precipitation are currently between 45 and 60 percent of normal levels.

From October 1st through February 28th, Spokane received only 2.99 inches of liquid equivalent precipitation, well below the 9.15 inches that it normally receives in this time frame. This is the second lowest total in the 120 years of weather records

for Spokane. The driest winter on record for Spokane, 1976/77, saw only 2.68 inches of precipitation in this same 5 month period. Many localities throughout the Inland Northwest have experienced similar deficits in precipitation so far this year. The graphs below summarize the departure from normal in precipitation from October 1st to February 28th.

The positive side to this lack of precipitation is that the outlook for spring flooding is low, meaning that flooding from the mountain snow melt is not expected in Eastern Washington and Northern Idaho. The negative side has yet to be fully determined, however the National Weather Service spring and summer water supply outlooks are forecasting well below normal inflows into the major reservoirs of the Inland Northwest. You can monitor both river conditions and the latest water supply outlooks on the NWS Spokane homepage at www.wrh.noaa.gov/spokane/hydro.htm .
☀ Charles Ross

INSIDE THIS ISSUE:

Unit Citation Award	2
StormReady Arrives	2
A Long, Cold Winter	3
Staff Changes	3
PacJet Experiment	4
Web Page Changes	4

Editor's Notes

Pictures anyone? The NWS is gathering weather video footage from around the Inland Northwest to produce a local video. We are also looking for photos or stories to add to a picture album for the NWS Spokane web page. If you would like to share a copy, please contact Ken Holmes or Robin Fox.

If there is something you would like to see in the next newsletter or if you have comments about a previous issue, please contact the editor, Robin Fox.

The main purpose of this publication is to keep our readers informed about our services and programs, and to recognize those who help us accomplish our mission, including weather spotters, coop observers, media and emergency management.

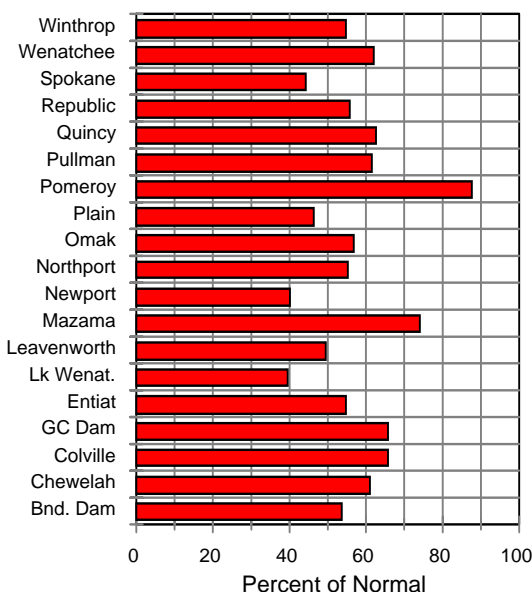
All articles are written by the NWS staff. A special thanks to Charles Ross, Ron Miller, Ken Holmes, John Livingston and Andy Haner for their contributions. ☀

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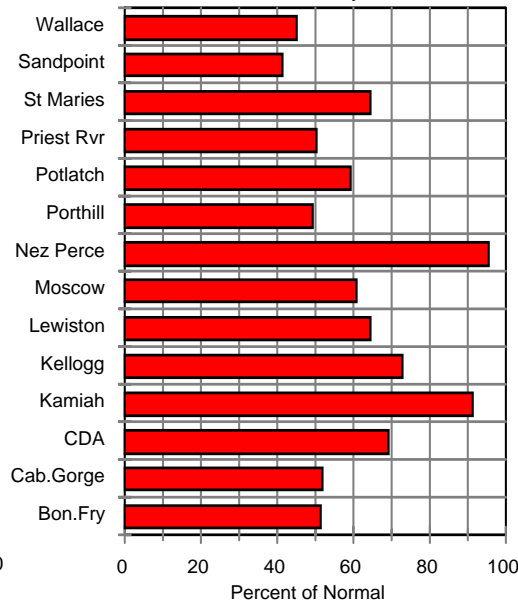
Eastern Washington Precipitation

October 1 - February 28



Northern Idaho Precipitation

October 1 - February 28



NWS Spokane receives Unit Citation Award



NWS Western Regional Director Vickie Nadolski presenting Meteorologist In Charge John Livingston the award.

For exemplary teamwork and service during the historic fire season from May - October 2000, NWS Western Regional Director Vickie Nadolski presented WFO Spokane with a NOAA Unit Citation Award. On Feb. 18th, she awarded this honor to Meteorologist In Charge John Livingston at a ceremony in Salt Lake City.

The 2000 fire weather season was one of the worst in 50 years. During this time, specially trained Incident Meteorologists from Spokane were dispatched to provide weather support to fires in Arizona, New Mexico, Colorado and throughout the Pacific Northwest and northern Rocky Mountain regions. Also, the remaining WFO Spokane staff provided extremely high quality service in all office programs. The staff issued more than 200 spot forecasts, coordinated with the local NWS customers as well as forecasters in adjacent offices to ensure the safety of the firefighters and the public.

The NWS grants the Citation - one of the agency's prestigious honorary awards - to employee teams that have made contributions of exceptional value in support of overall agency goals and mission that serve the nation. This award was also given to all the NWS forecast offices that serve Region 1 of the US Forest Service, including the NWS offices in Missoula, Boise, Pocatello, Great Falls, Billings and Glasgow. Congratulations to all on staff for their support during last summer's fire season. ☀ *John Livingston*

Remember, to make a Weather Spotter Report, please call the NWS Spokane
(509) 244-0435

StormReady in the Inland Northwest

Ninety percent of all presidentially declared disasters are weather related. These disasters lead to around 500 deaths and nearly \$14 billion in damage each year. To help Americans guard against the ravages of severe weather, the National Weather Service has designed StormReady, a program aimed at arming America's communities with the communication and safety skills necessary to save lives and property.

The StormReady program is intended to encourage preparedness activities in communities for severe and significant weather, and to publicly recognize those communities that have achieved a notable level of preparedness. The public recognition comes in the form of an accreditation when the community has met criteria established jointly by emergency management and NWS officials. With this official recognition comes StormReady roadway signs for the community and the ability to receive lower insurance rates for residents in the community.

StormReady has taken off in the Inland Northwest. As of February 7th, the city of Lewiston and Nez Perce County became the first official StormReady Communities in Idaho. The application process is taking place in other communities with many more ready to come aboard in the coming months. More information on StormReady can be found at www.nws.noaa.gov/stormready. ☀ *Ken Holmes*



A Long, Cold, but Dry Winter

If you ask most anyone for their appraisal of the 2000/01 winter, you'll generally get a remark along the lines of "Long and Cold". And overall, this does summarize this past winter. But probably the most important aspect of it was that this winter was much drier than normal. Both lowland and mountain snowfall were well below normal. Currently the mountain snow pack is about 45-60% of what it should be for this time of year.

The winter got an early start with a significant snow storm on 8 November. Spokane picked up 4.4", with an additional 1.5" the following day. While it's not unusual to get snow this early in the season, the amount of snow was atypical. In fact, there were only 3 events where more snow fell earlier than 8 November (5.9" on 22 Oct 1957, 9.0" on 4 Nov 1973, and 5.2" on 4 Nov 1994). However, in each of those 3 events, the snow melted, as it usually does with such early season events. But with this past winter, that did not occur. One of the main reasons was that a very cold Arctic air mass arrived right after the snowfall, gripping the fresh snow pack.

Initially, what looked like a very brutal winter didn't pan out. Instead of continuous snow storms, a large scale ridge was present over the area through most of the winter. Most of the storms were diverted well north into Canada during December and January, and then south into California during February. A few weak storms would make it in to the area giving us occasional light snow. But because they were not the strong Pacific storms we are typically accustomed to, there was no warm Pacific air moving into the Inland Northwest to warm us up and change the snow to rain in the valleys.

As a result, temperatures throughout the winter were generally below normal. This wasn't due to exceptionally cold nights or Arctic air masses moving in from the north. In fact, Spokane's coldest winter temperature was -2° on 11 Nov. The persistent ridge rarely allowed the Inland Northwest to warm up during the day. Typically, our region warms up ahead of strong Pacific storms. As a result, Spokane only reached the 40° mark three times between 7 Nov. (before the first snowfall) and the end of February. This is by far the longest stretch of sub 40° temperatures on the Spokane records (going back to 1881). Normally we'll have 46 such days during the winter with temperatures in the 40s, and during the mild 1997/98 El Nino winter Spokane had 68 such days. The weather conditions were similar in Wenatchee, where 40° or higher was reached only 14 times (most in late February), compared to a normal of 47 days. Lewiston reached 50° or better only 6 times this winter, with a normal span of 29 days of temperatures in the 50s or higher.

The result of all this was a steady snow pack for most locations north of about Highway 2. Spokane Airport set a record for consecutive days of 1" or more of snow on the ground. The old record was 113 days set during the 1992/93 winter. As of March 5th of this year, there were 117 consecutive days with snow on the ground.

The outlook for spring does look promising. The NWS Climatic Prediction Center is calling for near normal temperatures and above normal precipitation for the months of April through June. For more, visit www.cpc.ncep.noaa.gov. ☀ Ron Miller



Winter Weather Statistics

Wenatchee Airport	Dec	Jan	Feb	Total
Average High Temp	29.7	33.0	36.7	33.1
Departure from Normal	-3.4	-0.3	-4.8	-2.9
Average Low Temp	21.8	24.3	22.4	22.8
Departure from Normal	-0.7	+3.2	-4.2	-0.6
Total Precip	0.98	0.35	0.74	2.07
Lewiston Airport	Dec	Jan	Feb	Total
Average High Temp	37.8	39.5	44.2	40.5
Departure from Normal	-2.1	-0.1	-2.3	-1.5
Average Low Temp	27.9	28.9	29.5	28.8
Departure from Normal	-0.1	+1.8	-1.5	+0.1
Total Precip	0.72	0.98	0.44	1.42
Departure from Normal	-0.48	-0.30	-0.45	-1.23
Spokane Airport	Dec	Jan	Feb	Total
Average High Temp	29.5	32.1	34.1	31.9
Departure from Normal	-3.3	0.0	-5.3	-2.9
Average Low Temp	19.8	22.2	19.5	20.5
Departure from Normal	-1.8	1.4	-6.3	-2.2
Total Precip	0.93	0.63	0.66	1.26
Departure from Normal	-1.49	-1.35	-0.83	-1.39
Total Snow	15.1	8.7	5.6	29.4
Departure from Normal	0	-5.5	-1.1	-6.6

Staff Changes at NWS Spokane

Senior Forecaster Don Moore received a promotion to Science and Operations Officer in Billings, Montana. He departed at the first of the year. A new forecaster has joined the NWS Spokane team. Jon Rizzo, a Maryland native, graduated from Florida State and worked two years in Key West, Florida before arriving in Spokane. Jon is excited to settle down in the Inland Northwest. ☀ Robin Fox

Trivia Answer: Lake Chelan at 1486 ft is the 3rd deepest lake in the nation. It extends 400 ft below sea level.

PACJET Experiment

NWS Spokane forecaster Andrew Haner recently returned from a week-long trip aiding in a special research project in Monterey, California. The goal of the project was to gain further insight into winter storms over the Pacific Ocean before they make landfall, in order to make more accurate forecasts along the West Coast states.

The project was called PACJET, Pacific Landfalling Jets Experiment, and was a collaborative effort between NOAA, the U.S. Navy, the U.S. Weather Research Program, other government and university entities. From January 20th to March 4th, researchers made use of NOAA's WP-3D "hurricane hunter" aircraft, coastal wind profilers, special computer model simulations, and new satellite scanning strategies.

Haner's duties for the week included preparing and delivering daily weather briefings to researchers and identifying weather systems that could potentially affect West Coast states. Of his experience, Haner said, "The chance to tour the aircraft and to interact with the pilots and crew was a once-in-a-lifetime opportunity. It was exciting to take part in a research project that could have so much impact on our forecasts for the Inland Northwest." For more, visit

Web Page Changes

The NWS Spokane staff has been busy updating its Internet homepage in order to achieve a more organized and updated look. The first noticeable change was the addition of radar data on the main page. Over the past 10 years, the radar data was distributed to the public solely by the Nexrad Information Dissemination Services (NIDS). Due to the increased technology in the NWS and widespread internet usage, new sources of displaying radar information have grown. The contract between the NIDS vendors and the NWS was dissolved on Jan. 1st., allowing the NWS to display its radar data on NWS web pages.

Other new changes to the web page included updating menus with links to Outreach and Education, Office Info, Current Weather and Other Forecast pages. New improvements were done to the Climatology, Other Forecasts and Spotter Guide pages. Coming soon will be links to a weather glossary, a Severe Weather Guide to area schools and other educational information. ☼ *Robin Fox*



Cross country ski trails on Mt. Spokane reflect the lack of snow this winter. Picture taken March 7, 2001. See the front story for more.

Please take note! There have been some adjustments with the spotter ID numbering system. Your correct spotter ID is listed below. But if you notice any mistakes in your address information, please let us know. This also includes Ham call signs and Coop ID. Thanks!

Weather Watcher



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Weather Service
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Trivia: What is the deepest lake in the Inland Northwest?