



Office of the Washington State Climatologist Newsletter

June 27, 2008



CoCoRaHS

In the last newsletter, we mentioned that CoCoRaHS was coming to Washington June 1 and almost a month after its official launch, over 275 observers are signed up. However, there are plenty of under-represented areas and we can use all the help we can get in recruiting new volunteers throughout the state. So if you are already an observer, or even if you're not, tell your friends, neighbors, relatives, community groups, and whoever might be interested about CoCoRaHS and how valuable a tool it is in supporting things like weather forecasting, drought monitoring, emergency management, and research. CoCoRaHS is also a great educational tool in the classroom and can be used to teach children about the science of studying weather.



CoCoRaHS rain gauge.

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For more information about CoCoRaHS, visit www.cocorahs.org and while there, be sure to also visit the Washington CoCoRaHS web page for specific information pertaining to Washington and to learn about upcoming training sessions.

NWS Seeks COOP Observers

Currently, the National Weather Service in Seattle is seeking dedicated volunteer weather observers in the following locations, Doty (Lewis County), Toledo (Lewis County), Ocean Shores (Grays Harbor County), Westport (Grays Harbor County), Pacific Beach (Grays Harbor County), Etonville (Pierce County), Western Clallam County, Jefferson County.

Similar to CoCoRaHS, the Cooperative Observer Program (COOP) is made up of volunteers. However, being a COOP observer is more demanding and requires observations not only of precipitation, but also temperature, which are required to be reported 7-days a week, 365 days a year. If you are interested, visit <http://www.wrh.noaa.gov/sew/coop/become.php>

Congrats Phil!

Congratulations to Philip Mote for receiving the University of Washington's Distinguished Staff Award! The award is given to staff who contribute to the mission of their unit or the University, respond creatively to challenges, maintain the highest standards in their work, establish productive working relationships and promote a respectful and supportive workplace.

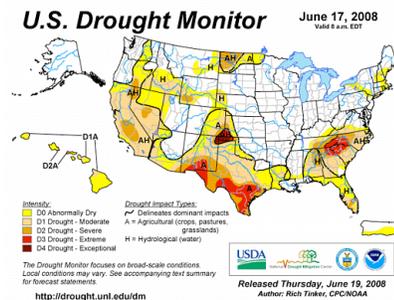
Phil exemplifies what it means to be a scientist, and with great enthusiasm strives to educate others on the science of climate change and the scientific process. While the topic of climate change can set off a feud of skepticism, Phil does not turn a blind eye to others, but instead approaches the situation as part of the scientific process, all the while maintaining his professionalism to the highest degree.

Congratulations Phil!

Drought Monitor

As summer approaches the possibility for the development of drought lingers in the air and this year is no different even with the seemingly cool cloudy weather and the nonexistent spring. Since January, precipitation has been below normal in much of the state especially in central Washington, which was recently classified by the Drought Monitor as being abnormally dry (D0) and put on the "watch list" for the possibility of a developing drought situation.

The Drought Monitor is a valuable tool for many in monitoring drought, which is produced by a culmination of resources, including and (probably the most important) input from the collaborative effort between federal, local, and state agencies. Currently Washington has one such agency, the state climate office, and we are seeking additional input. If you or your agency is interested in providing input for the Drought Monitor, please contact us climate@atmos.washington.edu.



Newsletter Survey

For those that have taken the survey, thank you! Your comments will eventually help us to improve the newsletter. If you have not taken the survey, we are interested in your feedback and hope that you spend a few minutes of your time to answer the questions on our short survey located at: <https://catalysttools.washington.edu/webq/survey/jamault/53545>



Those who take the survey will have a chance to receive 1 CoCoRaHS rain gauge or 1 of 5 OWSC mugs we will be giving out. Be sure to act soon, the survey will be closed July 11th!

The Spring that Wasn't

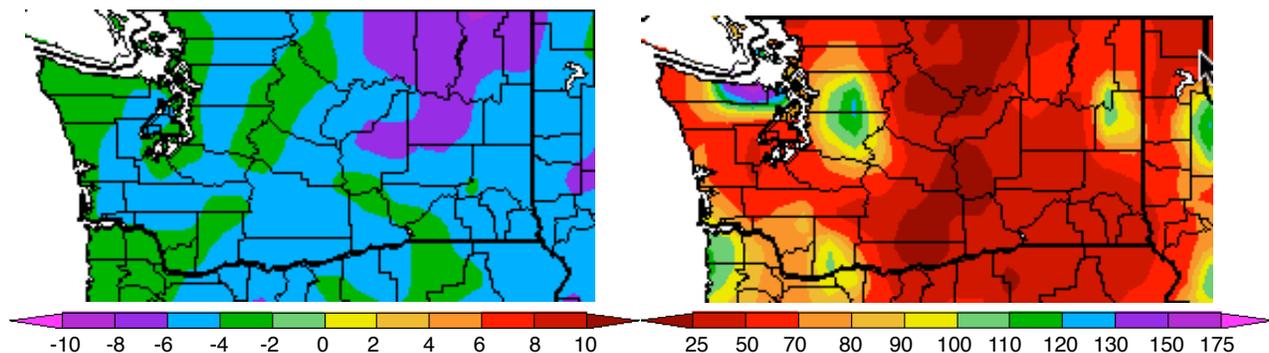
March

March set the trend for cooler weather following the unseasonable warmth in February. As mentioned in the newsletter for April, the last week of March had some of the coldest weather on record throughout the state. Spokane eclipsed its monthly average snowfall for the month by over 12" in the last half of the month and bumped winter 2008 as the second snowiest winter on record for Spokane.

April

The coldest month this spring, with an average statewide temperature of 42.6°F, 4.6°F cooler than the 20th century average and the 2nd coldest April on record. Usually when we hear that a maximum temperature record was broken, we think of record hot weather. But in April we were setting new low maximum temperatures. For stations with at least 30 years of records, there was at-least one location that either tied or set a new record low maximum temperature for 18 of the 30 days in the month. Despite the cold, there was a short glimpse of Spring, which came on April 13th when statewide temperatures surpassed 70°F in many locations, including Seattle, which set a record of 79°F.

For April, precipitation was lacking statewide. Seattle received 73% of its normal precipitation despite low-land snow late in the month and measurable precipitation on 19 of the 30 days. Port Angeles, the central Cascades, and Spokane (13 days of precipitation) were the only locations with above normal precipitation. The greatest departures were in central Washington, which received less than 25% of normal.



April temperature departure from normal (left) and percent of normal precipitation (right).

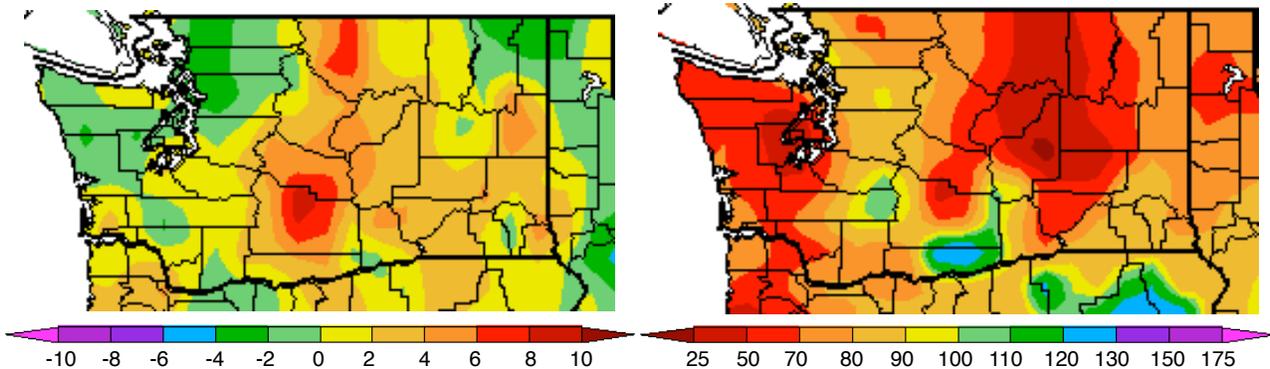
Source: High Plains Regional Climate Center <http://www.hprcc.unl.edu>

May

Statewide, May was actually 0.90°F warmer than average due in part to record heat in the middle of the month. In eastern Washington, the warm spell resulted in flooding from high river and stream runoff due to the above normal snowpack, which in April was slow to melt due to cooler temperatures. In Spokane county, flood waters severely damaged the only paved road, HWY 206, into Mount Spokane State Park, forcing the road to close. For the 7th time on record, Sea-Tac airport recorded a temperature of at least 90°F in the month of May. The May 17 record of 90°F was 5 degrees higher than the

previous record set in 1956 and was also the earliest day of the year with a temperature of 90°F+ for Sea-Tac Airport.

May continued to be dry with below normal precipitation throughout much of the state. In western Washington, the percentage of normal precipitation ranged from 38% for the Olympics to 96% in the northwest interior. Similarly in eastern Washington, the percentage of normal precipitation ranged from 30% in the Okanogan region to 95% for the Palouse and Blue Mountains.



May temperature departure from normal (left) and percent of normal precipitation (right).
 Source: High Plains Regional Climate Center <http://www.hprcc.unl.edu>

May Climate Summary for Various Locations

City	Temperature (°F)			Precipitation (inches)		
	Average	Normal	Departure from Normal	Total	Normal	% of Normal
Coast						
Hoquiam	54.0	49.1	4.9	1.73	3.38	51%
Long Beach	51.5	52.2	-0.7	2.46	3.92	-
Quillayute	51.3	51.4	-0.1	2.33	5.51	42%
Western WA						
Bellingham	52.9	54.1	-1.2	2.28	2.36	97%
Everett	53.8	55.1	-1.3	2.06	2.57	80%
Olympia	54.5	53.8	0.7	0.48	2.27	21%
Puyallup	55.7	55.7	0.0	0.85	2.14	40%
Seattle	56.1	55.7	0.4	0.89	1.77	50%
Vancouver	59.0	55.8	3.2	1.38	2.64	52%
Cascades						
Mt. Rainier (Paradise)	-	39.0	-	-	5.49	-
Ross Dam	54.2	53.6	0.6	1.17	2.13	55%
Stampede Pass	44.9	42.8	2.1	3.37	4.38	77%
Eastern WA						
Omak	58.6	59.8	-1.2	0.18	1.29	14%
Ritzville	55.5	54.3	1.2	0.19	1.01	19%
Spokane	56.9	54.4	2.5	0.93	1.60	58%
Walla Walla	61.1	59.6	1.5	1.47	2.01	73%
Wenatchee	62.0	59.4	2.6	0.31	0.61	51%
Yakima	59.9	57.3	2.6	0.21	0.51	41%

Normal is defined as the 1971-2000 average. The data above is preliminary and subject to change. The latest official data can be obtained from the National Climatic Data Center (NCDC).

Spring (Mar-May)

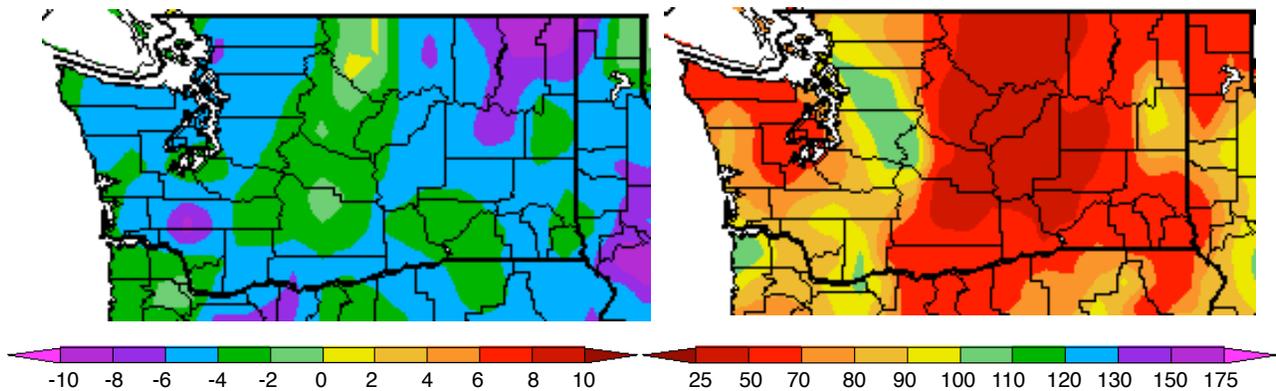
In the end, the consistent cool temperatures and the cloudiness seemingly led to the year without a spring. Spring 2008 ended up tied with 2002 for being the 18th-coolest out of 114 years of records with an average statewide temperature of 45.5°F. Over the 3-month period, the daily high temperature was below normal 73% of the time in Seattle and similarly, 68% for Spokane.

While it may have seemed wet in western Washington, much of the state received below normal precipitation. The only area that with above average precipitation, was the northwest interior. The driest areas were in central Washington where less than 50% of normal precipitation fell for Mar-Apr-May.

For us in the northwest, it is not unusual for the sun to be absent and when spring arrives and spring fever has not set-in, we take note. From sunrise to sunset, the number of clear days in Seattle was 1, compared to the average of 8 and in Spokane, 2 compared to an average of 10.

So why was it so cool? There are many factors, including La Niña, that likely played a role. For additional details on why the weather has been so cool, visit:

<http://www.climate.washington.edu/events/2008coolwx/>



Spring temperature departure from normal (left) and percent of normal precipitation (right).

Source: High Plains Regional Climate Center <http://www.hprcc.unl.edu>

Spring Climate Summary for Various Locations

City	Temperature (°F)			Precipitation (inches)		
	Average	Normal	Departure from Normal	Total	Normal	% of Normal
Coast						
Hoquiam	48.7	48.1	0.6	12.63	15.60	81%
Long Beach	49.0	48.7	0.3	9.99	18.96	53%
Quillayute	45.4	47.3	-1.9	15.15	23.93	63%
Western WA						
Bellingham	46.3	49.1	-2.8	7.43	8.05	92%
Everett	48.0	50.1	-2.1	9.09	9.37	97%
Olympia	46.5	48.7	-2.2	7.64	11.14	69%
Puyallup	48.0	50.5	-2.5	5.82	9.46	62%
Seattle	48.9	50.7	-1.8	6.44	8.11	79%
Vancouver	50.6	50.7	-0.1	7.59	9.92	77%
Cascades						
Mt. Rainier (Paradise)	-	33.8	-	-	27.37	-
Ross Dam	44.9	47.0	-2.1	7.20	10.26	70%
Stampede Pass	39.2	37.1	2.1	8.32	17.23	48%
Eastern WA						
Omak	46.5	52.0	-5.5	1.10	3.16	35%
Ritzville	44.9	47.3	-2.4	1.56	3.53	44%
Spokane	45.1	46.8	-1.7	4.06	4.41	92%
Walla Walla	51.2	52.9	-1.7	3.82	5.91	65%
Wenatchee	50.0	51.5	-1.5	0.70	1.76	40%
Yakima	47.9	50.1	-2.2	0.61	1.74	35%

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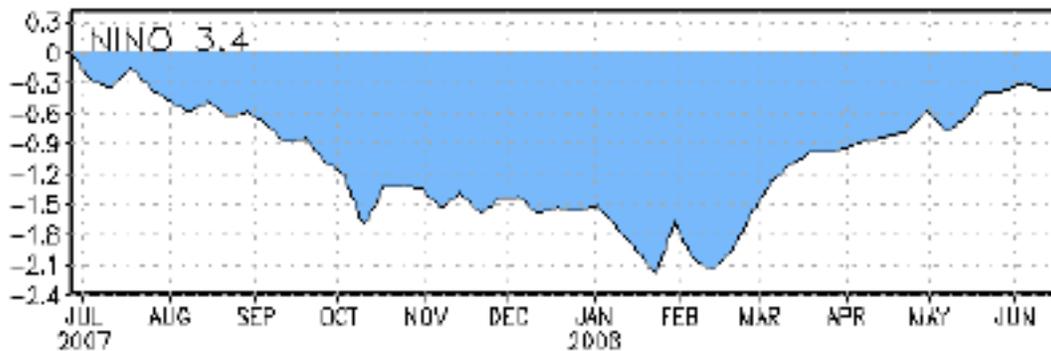
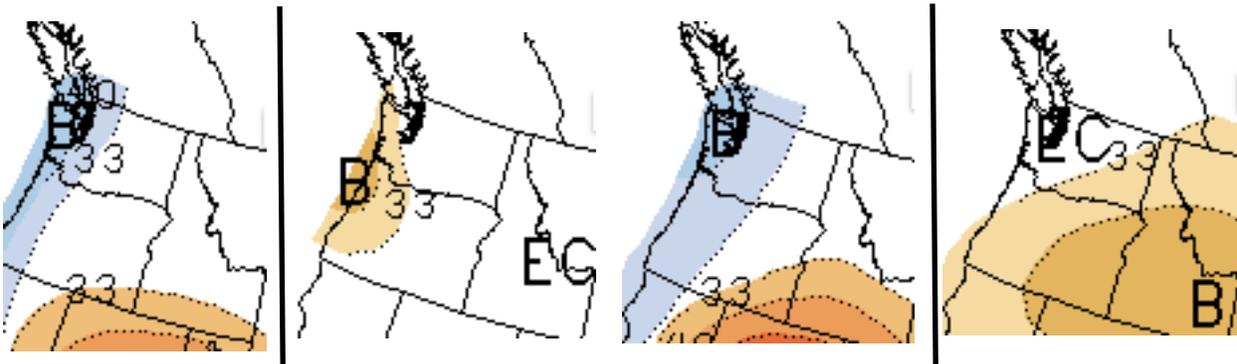
Outlook

Temperatures for the western half of the state are likely to remain below normal for the next 3 months according to the Climate Prediction Center's (CPC) outlooks. In western Washington, CPC suggests equal chances for above, below, and normal temperatures through summer. In the short term, the 1-month outlook for precipitation calls for an increased probability of below normal precipitation along the coast with equal chances elsewhere. Through summer, conditions in eastern Washington are not likely to improve, with the CPC outlook suggesting an increased probability of below normal precipitation, with equal chances elsewhere in the state.

Niño 3.4 Sea-surface temperatures (SSTs) in the tropical Pacific have been warming since late February, but since mid-May, have now leveled off. As the majority of the models suggested earlier this year, the current state of ENSO is neutral. According to the latest model forecasts, ENSO neutral conditions are expected to remain through August. Thereafter, considerable uncertainty exists, with some models suggesting the development of El Niño and others suggesting the return of La Niña.

July Outlook
Temperature - Precipitation

July-Aug-Sept Outlook
Temperature - Precipitation



Niño 3.4 Sea-Surface temperature anomalies. La Niña conditions are characterized by negative monthly SST anomalies less than or equal to -0.5°C.