



Office of the Washington State Climatologist Newsletter

June 29, 2007

New at OWSC

eWaCH.net - After the Workshop

On June 15th, the inaugural meeting of an effort we are calling eWaCH.net, for "enhancing Washington's Climate-Hydrology networks" successfully took place. Together with about 28 people from various state and federal organizations (NWS, NOAA, Ecology, National Parks Service, to name a few) we discussed the priorities and goals for eWaCH.net. These include

- The need for an accurate and reliable weather/climate observation network for proper analysis and climate monitoring.
- The need for better groundwater monitoring and stations near water gauges for a better understanding of the atmosphere and streamflow and water quality relationships.
- The need for automated observing stations for real-time analysis- necessary for hydrologic monitoring and forecasting, making crucial decisions in times of drought, and to remove human error.
- Begin by getting onboard the USHCN-M (U.S. Historical Climate Network-Modernization) project which will modernize 32 USHCN stations in WA.
- The need for long-term funding sources.

The next step for eWaCH.net will be to develop an action plan for the Governor and other potential stake-holders for the initial appropriations to begin enhancing Washington's climate-hydrology networks. We will also begin the process of selecting potential sites/stations for modernization by siting and documenting stations from the USHCN and COOP networks and using a grading scheme, evaluate each station's environment, data quality, longevity, and importance spatially (i.e. in mountains where few stations exist). For further information and copies of the presentations from the workshop, go to: <http://www.ewach.net>

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Mault Wins Forecast Contest

Like grapes into wine, weather turns into climate if you wait long enough. Most climatologists, though, do not take much of an interest in weather forecasting nor develop the skills and patience to do it well.

It is, therefore, with great pride and admiration that I recognize Josiah Mault's accomplishment in winning the Spring Forecast contest in UW's Department of Atmospheric Sciences. If our readers will forgive a little reminiscing, my admiration springs from personal experience: while I was a graduate student in the Department in the early 1990's, I entered the contest twice, and knowing how much work and skill is involved in placing somewhere in the top third, I can only imagine what it takes to win.

Contestants devise pseudonyms (Josiah's was carrotmonkey) and then forecast the next day's high temperature at Sea-Tac airport, and the probability of precipitation. In this year's forecast, which ran 42 weekdays from April 2 to May 30, there were 37 human forecasters and several additional entries including climatology (simply the averages for the day in question, never does very well) and the National Weather Service's official forecast (remember, the contestants can spend as much time as they want forecasting for a single location, whereas the NWS has to forecast for most of western Washington).

The contest dates back to the late 1960s and winners have to know not just how to forecast very well during changing conditions but also how to game the scoring and gamble on others' forecasts. In the last days of the contest carrotmonkey's lead was briefly in jeopardy but at the last minute he pulled ahead again. Second place went to Itchy Brother, a.k.a. Dr. Nick Bond of NOAA, who tried to bask in Josiah's glory by noting that he had taught Josiah's weather forecasting class.

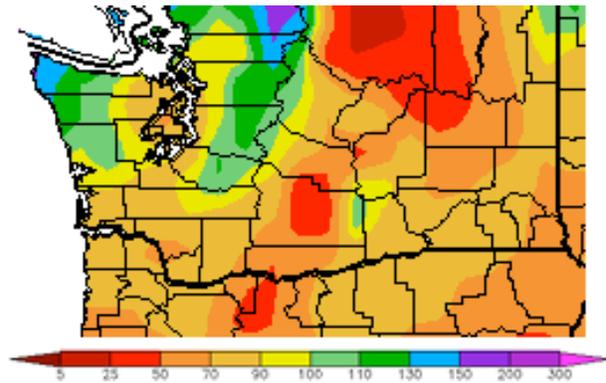
Congratulations, Josiah. Now get back to climate!

--Philip Mote, with contributions from Neal Johnson

Climate Summaries

Spring (March-May)

According to NOAA, the contiguous U.S. experienced its 5th warmest spring since records began in 1894 (only 1910, 2004, 2000, 1934 were warmer). Statewide, Washington's mean temperature of 48°F for spring was 1 degree warmer than the 20th century average. Despite near normal precipitation statewide (52nd percentile), much of eastern Washington received below normal precipitation with the driest areas being the Okanogan region and Yakima Valley, less than 50% of normal. The wettest areas, 100-150% of normal, were along the coast north of Hoquiam and central and north cascade areas.



Spring (Mar.-May) Percent of Normal Precipitation.
Source: High Plains Regional Climate Center
<http://www.hprcc.unl.edu>

Spring Precipitation Rankings

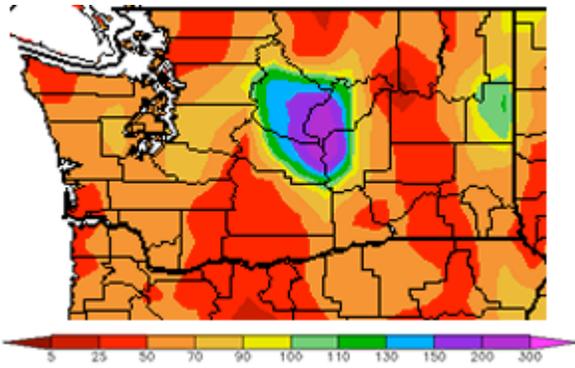
City	Total (in)	Normal (in)	% of Normal	Rank*
Bellingham	9.86	8.09	122%	46
Hoquiam	14.17	15.60	91%	27
Lakeside/Chelan	1.05	2.51	42%	8
Quillayute	35.23	23.93	147%	39
Seattle	6.57	8.12	81%	19
Spokane	3.09	4.41	70%	41
Vancouver	6.69	9.92	67%	27
Yakima	0.69	1.74	40%	10

Precipitation rankings are available at: <http://climate.washington.edu/precipranking>
*1 = driest.

May

The month started off cool and wet the first week, but quickly dried out and gave way to mild temperatures. On the evening of May 12th warm temperatures combined with the moist southwest flow to produce some thunderstorms in the Spokane area whose main threat was not hail or rain, but gusty winds. Observed wind gusts in the area were 30 to 40 mph with the strongest at Felts Field, 51 mph.

As usual, May often has a few heat waves and this year was no exception. Strong high pressure over the region May 15th brought above normal temperatures statewide with record breaking temperatures around Puget Sound where Seattle-Tacoma International Airport recorded a record high of 84°F, breaking the previous record of 82°F set in 1958. About 2-weeks later the next heat wave would arrive, Seattle-Tacoma International Airport reached 87°F, tying the record high set in 1956.



May Percent of Normal Precipitation.
 Source: High Plains Regional Climate Center
<http://www.hprcc.unl.edu>

May temperatures were slightly above normal with a statewide average temperature of 55.0°F, 1.0° warmer than the 1901-2000 average. Statewide, precipitation continued to be below normal (70%), and the 35th driest May out of 113-years (1 being the driest, 113 the wettest). The exception was the Wenatchee area which received 2.03” (0.27” above normal) with the help of some thunderstorms late in the month, which ended up being the wettest 2-day May rain event for Wenatchee (1.51”).

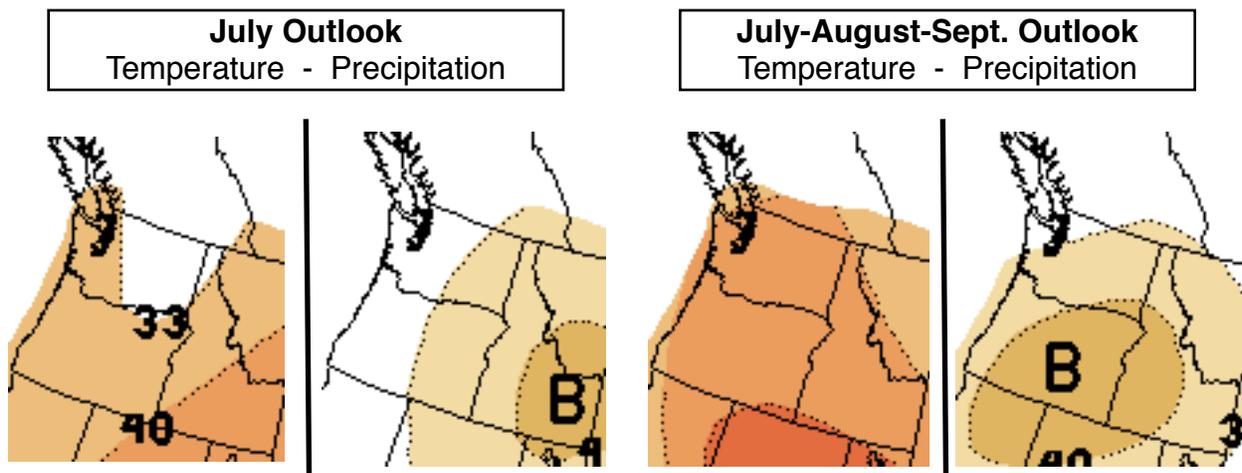
May Climate Summary for Various Cities

City	Temperature (°F)			Precipitation (inches)		
	Average	Normal	Departure from Normal	Total	Normal	% of Normal
Bellingham	53.2	54.1	-0.9	1.31	2.36	56%
Hoquiam	52.6	53.3	-0.7	1.90	3.38	56%
Lind	57.6	56.7	0.9	0.06	0.88	7%
Mt. Rainier (Paradise)	43.0	39.0	4.0	4.47	5.49	81%
Quillayute	50.4	51.4	-1.0	3.04	5.51	55%
Republic	52.6	51.7	0.9	0.99	2.07	48%
Seattle	56.6	55.7	0.9	1.46	1.77	82%
Stampede Pass	44.7	42.8	1.9	2.02	4.38	46%
Spokane	56.2	54.4	1.8	1.60	1.60	100%
Walla Walla	61.9	59.6	2.3	0.61	2.01	30%
Wenatchee	60.9	59.4	1.5	1.82	0.61	298%
Yakima	58.2	57.3	0.9	0.32	0.51	63%

Outlook

The Climate Prediction Center's 1-month outlook (see images below) for July indicates equal chance conditions for temperature for eastern Washington and a slightly increased probability for above normal temperatures for western Washington. For precipitation, there is a slightly increased probability for below normal precipitation for eastern Washington and equal chance conditions west of the Cascade Mountains. The 3-month outlook for July-August-September suggests a 40% chance for above normal temperatures for the entire state and a slightly increased probability for below normal precipitation for much of Washington.

In the tropical Pacific, sea-surface temperatures remain consistent with ENSO neutral conditions, as May equatorial Pacific sea surface temperatures (SST) were characterized by cold anomalies in the east which have increasingly become colder the last few months, but with persistent warm anomalies in the west, neutral conditions prevail in the central equatorial Pacific, where the correlation of SST and Pacific Northwest climate is strongest. The current indication by the models is for near normal to cool ENSO ("La Niña") conditions for this summer through next winter. Historically, ENSO forecasts issued this time of year have the least amount of skill compared to those issued in the summer and fall. For other seasonal outlooks, including local temperature outlooks, see <http://climate.washington.edu/outlook.html>.



EC Means equal chances for A, N, B.

A means above, N means normal, B means below.