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May 15, 2008, A western Nebraska late afternoon rainbow – Photo by Ken Dewey
<http://nebraskaweatherphotos.org>

May 2008 Climate Summary

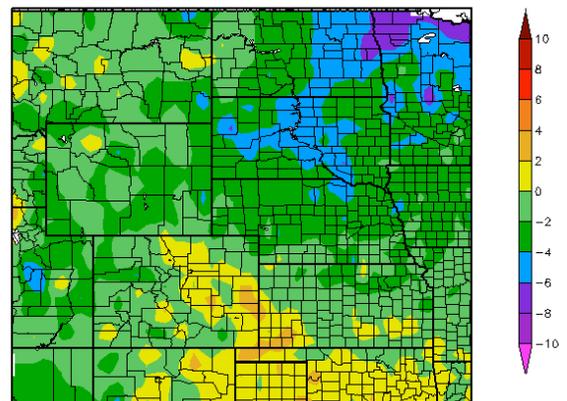
Region Breakdown

May 2008 was a very active month for extreme precipitation amounts on both ends of the spectrum while temperature remained with temperatures at or below Normal (0-6 °F below) for the majority of the High Plains Region. The exception to the Normal or below Normal temperatures occurred in Eastern Colorado and Southwestern Kansas where warmer than Normal temperatures (2-4 °F above) were experienced. The most extreme departures from Normal temperature occurred in Southwestern Kansas (4 °F above) and Eastern North Dakota (8 °F below).

Areas where near Normal or below Normal temperatures (0-4 °F below) occurred received above Normal amounts of precipitation, while areas where above Normal (2-4 °F above) and extreme below Normal (6-8 °F below) temperatures occurred received 25% or less the normal precipitation for the month. The areas that received above Normal precipitation generally did so to the extreme with widespread areas reporting 200%+ the Normal precipitation for the year, with areas receiving below Normal precipitation also doing it to the extreme as those areas reported 25% or less the Normal precipitation amounts.

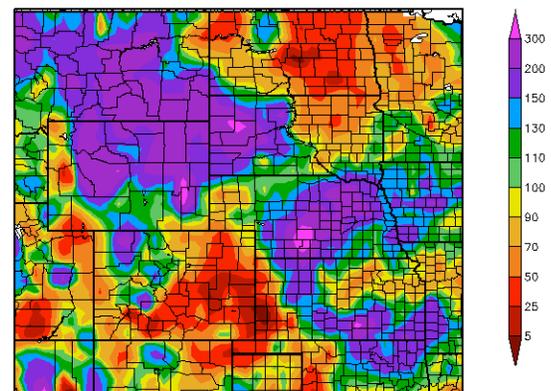
Drought persists over areas of North Dakota, Northwestern Nebraska, Southwestern Wyoming, and along the Colorado/Kansas border. Seasonal outlooks indicate that all areas of drought in the region should improve through the summer. Over the last month widespread retreat of drought areas occurred. Categorization changes include D3-D2 in Northwestern Nebraska, D1-D0 in Southwestern Nebraska, areas of D1, 2, and 3 were eliminated in South Dakota, and D1-D0 and none in Central Wyoming. One area did experience intensification through the month of May, the Kansas-Colorado border. The area went from D2-D3 categorization by the end of May.

Departure from Normal Temperature (°F)
 5/1/2008 – 5/31/2008



Above: Departure from 1971-2000 Normal May Average Temperature (°F) for May 2008
 For more, please visit: <http://hprcc.unl.edu/maps/current>

Percent of Normal Precipitation (%)
 5/1/2008 – 5/31/2008



Above: Percent of 1971-2000 Normal May Total Precip
 For more, please visit: <http://hprcc.unl.edu/maps/current>

Precipitation Summary

May proved to be a diverse month for the High Plains Region. Two distinct areas, Colorado and North Dakota, were characterized by well below normal precipitation amounts. Areas received as little as 5-25% normal precipitation for the month. On the other end of the spectrum were three areas, Western South Dakota, Central and Eastern Nebraska, and North Central and Southern Kansas, that received well above normal for the month. Portions of each area received as much as 300% the normal with wide spread areas of 100+% normal.

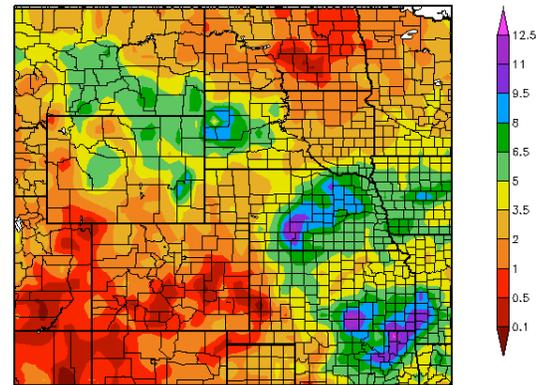
The dynamic setup for the region was said to be characterized by early spring dynamics with late spring thermodynamics. That setup resulted in system after system producing severe weather across large portions of Wyoming, Western South Dakota, Nebraska, and North Central and Southern Kansas.

On the 22nd/23rd of May, a particular system swept through Central Nebraska dumping 6 ¼ inches (158.75 mm) of rain in the McCook, NE area. Of that rainfall amount, over 5 inches (127 mm) was recorded on the 23rd. That same system dropped a little over 4 inches (101.6 mm) in Grand Island, NE with 2 ½ inches (63.5 mm) occurring on the 23rd.

Just a few days later on the 26th of May South Central Kansas experienced a series of thunderstorms that dropped large amounts of precipitation. Wichita, KS reported nearly 3 ¼ inches (88.9 mm) while Hutchinson, KS reported nearly 2 ¼ inches (57.15 mm).

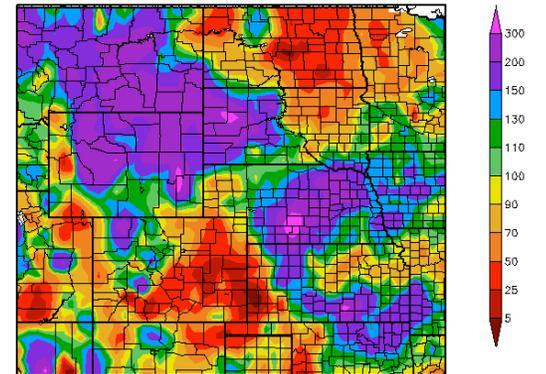
The other extremes of the month included Montpelier, ND recording .38 inches (9.65 mm), Hugoton, KS recording .20 inches (5.08 mm), and Las Animas, CO recording .42 inches (10.67 mm), all well below a quarter of normal for each respective station.

Precipitation (in)
5/1/2008 – 5/31/2008



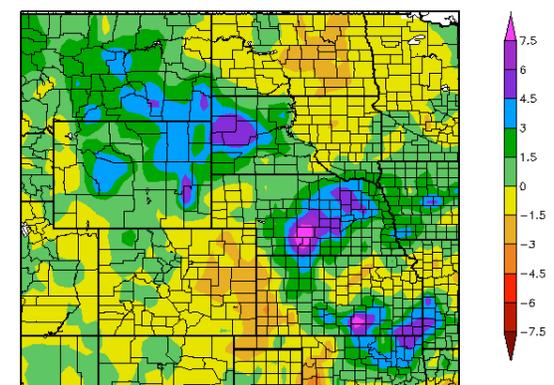
Above: Total Liquid Precipitation (in) for May 2008
For more, please visit: <http://hprcc.unl.edu/maps/current>

Percent of Normal Precipitation (%)
5/1/2008 – 5/31/2008



Above: Percent of 1971-2000 Normal May Total Precip
For more, please visit: <http://hprcc.unl.edu/maps/current>

Departure from Normal Precipitation (in)
5/1/2008 – 5/31/2008

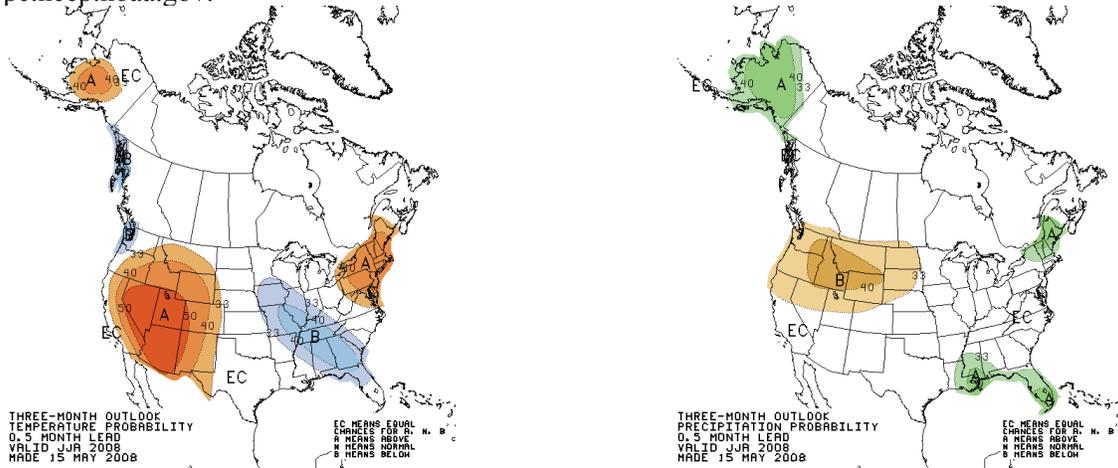


Above: Departure from 1971-2000 May Total Precip
For more, please visit: <http://hprcc.unl.edu/maps/current>

May 2008 Climate Summary

Climate Outlook

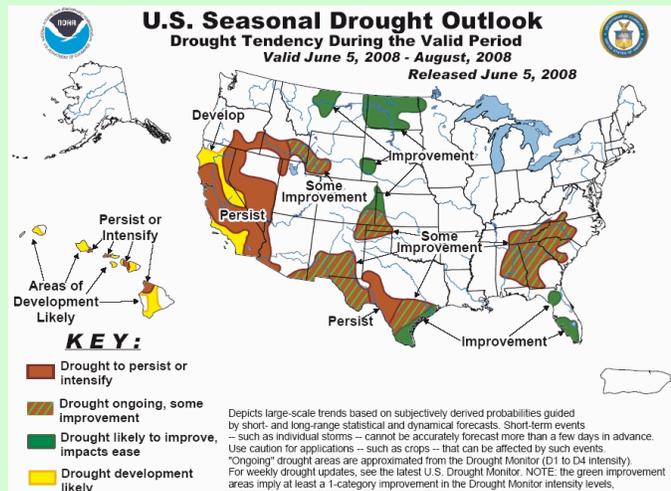
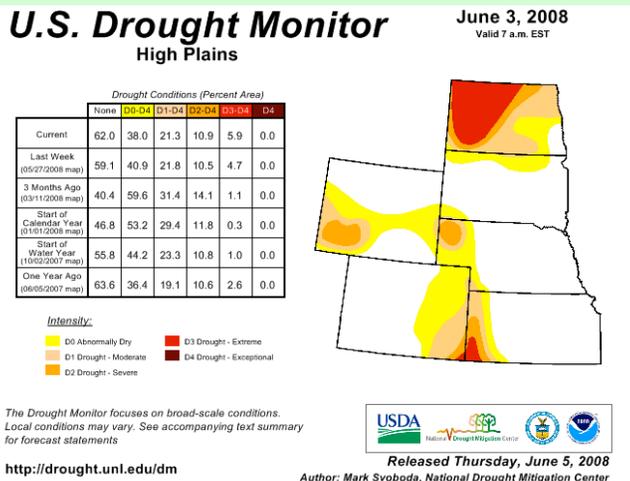
With La Nina ENSO conditions shifting towards neutral and expected to stay neutral through the Northern Hemisphere summer months, NOAA forecasters are calling for dryer than normal conditions for the majority of the northwest portion of the High Plains with accompanying higher than normal temperatures for the western portion of the High Plains. This summer outlook is produced by scientists at the NOAA Climate Prediction Center. For more information, visit <http://www.cpc.ncep.noaa.gov>.



Above: 3-Month Outlook Maps Courtesy the NOAA Climate Prediction Center – <http://www.cpc.ncep.noaa.gov>
 Left: The Three-Month Temperature Probability Outlook covering June, July, and August
 Right: The Three-Month Precipitation Probabilities Outlook covering June, July, and August

Drought Watch

Drought conditions remain in over the majority of North Dakota, Northwest Nebraska, Southwest Wyoming, and along the Colorado, Kansas border. Improvement continues in portions of Eastern South Dakota, Northwest Nebraska, and Southwest Wyoming while drought conditions continue to worsen along the Colorado-Kansas border. According to the U.S. Seasonal Drought Outlook released on June 5th, improvement on drought conditions is expected to continue in all areas of the High Plains, with the least improvement expected in Southwest Wyoming, Southeast Colorado, and Southwest Kansas.



The U.S. Drought Monitor is produced as a joint effort of the U.S. Department of Agriculture (USDA), National Drought Mitigation Center, U.S. Department of Commerce and the National Oceanic and Atmospheric Administration (NOAA). Real-time data provided through ACIS from the NOAA Regional Climate Centers is often used by the agencies involved in the U.S. Drought Monitor when determining the area and intensity of drought conditions, although the product itself is not produced by HPRCC. For current Drought Monitor information, please see: <http://www.ndmc.unl.edu/dm/monitor.html>. Portions of this Drought Watch are courtesy the Drought Monitor Tex Discussion found on the Drought Monitor webpage.

May 2008 Climate Summary

State Summaries

Colorado	Temperature (degrees F)								Precipitation (inches)		
	Averages				Extremes				Totals		
	Max	Min	Mean	Depart	High	Date	Low	Date	Obs	Depart	% Norm
Alamosa San Luis Airport	68	30.2	49.1	-1.3	84	5/20	13	5/2	0.43	-0.27	61
Akron Washington County Airport	69.9	42.1	56	-1	88	5/21	21	5/3	1.55	-1.6	49
Colorado Springs Municipal Airport	69.9	40.4	55.1	0.5	86	5/21+	22	5/3	0.4	-1.99	17
Grand Junction Walker Field Airport	73.1	43.8	58.4	-2.1	91	5/20	28	5/2	0.89	-0.09	91
Pueblo Memorial Airport	77.3	41.6	59.5	-0.2	93	5/21	24	5/3	0.96	-0.53	64

Kansas	Temperature (degrees F)								Precipitation (inches)		
	Averages				Extremes				Totals		
	Max	Min	Mean	Depart	High	Date	Low	Date	Obs	Depart	% Norm
Concordia Municipal Airport	73.5	50.7	62.1	-0.9	88	5/25+	35	5/3	4.62	0.42	110
Dodge City Regional Airport	77.2	49.3	63.2	-0.6	90	5/25	32	5/11+	3.95	0.95	132
Goodland Renner Field	73.2	42.2	57.7	-1	96	5/29	26	5/3	1.19	-2.27	34
Topeka Municipal Airport	75.9	53.2	64.6	0.2	91	5/25	36	5/4	3.55	-1.31	73
Wichita Mid-Continent Airport	77	55.2	66.1	1.1	91	5/30	37	5/4	13.14	8.98	316

Nebraska	Temperature (degrees F)								Precipitation (inches)		
	Averages				Extremes				Totals		
	Max	Min	Mean	Depart	High	Date	Low	Date	Obs	Depart	% Norm
Chadron Municipal Airport	67	41	54	-2.8	89	5/18	25	5/3	2.56	-0.46	85
Grand Island Airport	70.9	47.7	59.3	-1.3	87	5/19	34	5/11+	9.04	4.97	222
Lincoln Municipal Airport	72.3	48.5	60.4	-1.6	89	5/25	35	5/4	4.12	-0.11	97
Omaha Eppley Airport	72	48.3	60.1	-2.1	88	5/25	35	5/4	6.33	1.89	143
Norfolk Karl Stefan Airport	68.9	45.9	57.4	-2.9	83	5/25	34	5/3	8.52	4.6	217
North Platte Regional Airport	68.8	42.1	55.4	-2.9	86	5/18	27	5/11	7.45	4.11	223
Valentine Miller Field	67.3	41.5	54.4	-3.1	84	5/18	24	5/11	3.53	0.33	110

North Dakota	Temperature (degrees F)								Precipitation (inches)		
	Averages				Extremes				Totals		
	Max	Min	Mean	Depart	High	Date	Low	Date	Obs	Depart	% Norm
Bismark Municipal Airport	66.5	39.4	53	-3	83	5/16	23	5/3	1.27	-0.95	57
Dickinson Municipal Airport	65.4	39.4	52.4	-2.1	85	5/18	25	5/3	1.72	-0.56	75
Fargo International Airport	67.3	40.4	53.9	-3.5	84	5/16	25	5/11	1.89	-0.72	72
Grand Forks International Airport	66.1	35.1	50.6	-6.2	83	5/16	20	5/5	1	-1.21	45
Williston International Airport	67.7	40.4	54	-0.6	85	5/18	18	5/3	1.06	-0.82	56

All Data are Preliminary and Subject to Change

Source: National Weather Service Cooperative Observation Network Data

Data is retrieved through the Applied Climate Information System (ACIS)

This data is available for the entire period of record through the CLIMOD system. For more information please see <http://hprcc.unl.edu/services>.

May 2008 Climate Summary

South Dakota	Temperature (degrees F)								Precipitation (inches)		
	Averages				Extremes				Totals		
	Max	Min	Mean	Depart	High	Date	Low	Date	Obs	Depart	% Norm
Aberdeen Regional Airport	67.7	41	54.4	-3.5	85	5/16	26	5/11	1.32	-1.37	49
Huron Regional Airport	67.1	42.8	55	-3.2	84	5/16	27	5/11	2.26	-0.74	75
Rapid City Regional Airport	62.2	40.4	51.3	-3.7	85	5/18	26	5/3	7.24	4.28	245
Sioux Falls Joe Foss Field Airport	67.5	45.2	56.4	-1.4	82	5/31+	33	5/3	3.34	-0.05	99

Wyoming	Temperature (degrees F)								Precipitation (inches)		
	Averages				Extremes				Totals		
	Max	Min	Mean	Depart	High	Date	Low	Date	Obs	Depart	% Norm
Casper Natrona County International AP	63.4	36	49.7	-2.4	85	5/21	20	5/2	4.26	1.88	179
Cheyenne Municipal Airport	63.1	37.6	50.4	-0.9	81	5/21	19	5/3	2.21	-0.27	89
Lander Hunt Field Airport	62.5	38.9	50.7	-2.7	83	5/18	27	5/3	6.14	3.76	258
Laramie Regional Airport	58.6	31.6	45.1	-1.9	77	5/20	9	5/3	1.52	-0.15	91
Rawlins Municipal Airport	61	35.1	48	-2.9	79	5/19	18	5/3	1.89	0.4	127
Sheridan County Airport	62.2	39.5	50.8	-1.6	83	5/18	24	5/3+	4.73	2.32	196

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About the High Plains Regional Climate Center



The High Plains Regional Climate Center (HPRCC) operates out of the University of Nebraska – Lincoln (UNL) in Lincoln, Nebraska. As one of 6 regional climate centers operated under the National Oceanic and Atmospheric Administration (NOAA), HPRCC works closely with other organizations such as the National Climatic Data Center (NCDC), Local and Regional National Weather Service (NWS) Offices, and other climate services organizations such as the National Drought Mitigation Center (also located at UNL) to provide climate data service and specialized climate products.

For More Information Online

High Plains Regional Climate Center: <http://hprcc.unl.edu>
High Plains Regional Climate Services: <http://hprcc.unl.edu/services>
CLIMOD: <http://climod.unl.edu>
NOAA Regional Climate Centers and ACIS: <http://www.rcc-acis.org>
North Dakota State Climate Office: <http://www.ndsu.edu/ndsco>
North Dakota Agricultural Network: <http://www.ndawn.ndsu.nodak.edu>
National Weather Service: <http://www.weather.gov>
National Climatic Data Center: <http://ncdc.noaa.gov>
School of Natural Resources – University of Nebraska – Lincoln: <http://snr.unl.edu>
University of Nebraska – Lincoln: <http://www.unl.edu>
National Drought Mitigation Center: <http://drought.unl.edu>
Climate Prediction Center: <http://www.cpc.noaa.gov>
NOAA Storm Prediction Center: <http://www.spc.noaa.gov>
National Agricultural Statistics Service (USDA): <http://www.nass.usda.gov>
Weather Photos: <http://www.nebraskaweatherphotos.org>



Flooded farm field in Central Nebraska – Photo by Ken Dewey
<http://www.nebraskaweatherphotos.org>

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