

VALLEY WEATHER WIND



Spring 2009

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Omaha/Valley, Nebraska

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A Newsletter for Emergency Managers, Core Storm Spotters, Media, and Public Officials in Eastern Nebraska and Southwest Iowa

Comments and suggestions are always welcome. Your feedback is very important to us!

Please contact us by telephone, e-mail, or regular mail.

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This publication also is available on-line at <http://www.crh.noaa.gov/oax/news/newsletter.pdf>

Chief Editor:
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Little Sioux Scout Ranch Reopens

by *Becky Kern, Meteorologist*

The evening of June 11, 2008 was a tragic night in the history of the Boy Scouts of America. On that night, in northwest Iowa, the Little Sioux Boy Scout Camp was struck by a killer tornado. Four scouts died, and dozens of others were injured. The event caught the attention of the Nation as a flurry of media reporters covered the story.

Xavier Olivo was there. He is now 14 years old; he was 13 on June 11, when he was attending the Boy Scout leadership camp. The scouts were between leadership classes when lightning started in the distance and a few drops of rain began falling. His class was playing cards under an awning at the north shelter of the camp. He remembers there were many different classes going on at that time, and one group was even hiking in the woods.

While the scouts were playing cards, the leader of his group told them all to be very quiet. Once it was silent, they heard the sound of faint sirens in the distance. The scout leader told them all to get inside the shelter and take cover under the tables. Scout leaders at the camp had a NOAA Weather Radio All Hazards and received the warning in time to activate their own outdoor warning siren with a few minutes of lead time. Olivo was under the tables that were furthest from the fireplace and chimney that later collapsed, killing the four scouts in the debris.

"I remember looking out the windows and seeing the trees beginning to bend and leaves being ripped off the trees," said Olivo. After that, he blacked out, but was told of what happened in the next few minutes. Another scout grabbed Olivo's leg as Olivo became airborne. This Boy Scout hung onto Olivo's leg and the leg of the table as the entire shelter was destroyed as it took a direct hit from the tornado. Eventually, the force was too strong, and Olivo landed about 50 yards from the shelter. His scalp was torn back, and he sustained a broken clavicle.

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From left to right: Becky Kern (NWS forecaster), Xavier Olivo (Boy Scout), and Jim Meyer (NWS Meteorologist-in-Charge) at the Little Sioux Scout Ranch reopening ceremony.

Little Sioux Scout Ranch Reopens, cont'd

Olivo regained consciousness a few minutes later to find another scout already holding pressure on his scalp. Olivo was the first of the 42 injured taken by ambulance. Paramedics wrapped his head in the ambulance as they transported him to the hospital in Blair, NE.

While in the ambulance, Olivo remained calm and gave the paramedics his mother Lisa's cell phone number. Lisa had heard that the scout camp took a direct hit by the tornado and had already gotten in her car to drive to the camp. While on her way, she received the call from the paramedics. She arrived in Blair as Olivo's head bandages were taken off. Olivo was in the hospital for 3 days.

After reading the Omaha World Herald story about Olivo, the NWS office in Valley, NE, decided to invite Olivo and his mother Lisa to tour the office.



Olivo has taken a keen interest in meteorology since the night of the tornado. Whenever he enters a new place, he looks around to find a good place to seek shelter if there were a tornado, though he says he would rather be outside looking at the event or inside looking at the radar.

"My ideal home would have a tornado shelter with computer equipment so I could watch the radar," said Olivo.

A grand reopening of the camp was held on May 2nd, 2009. The reopening ceremony featured Central Region's Deputy Director John Ogren. NWS Omaha/Valley's MIC Jim Meyer and WCM Brian Smith presented a Severe Weather Preparedness Hero Award to the camp medical doctor, Dr. Crabb, M.D., who sounded the sirens after hearing the alert on NOAA All Hazards Weather Radio. The award was also presented to the camp ranger, Nathan Dean, who was in his home with his wife and 3 children when the tornado destroyed their entire house. They were safe in an interior closet.

The scout camp was recognized as a Storm Ready Supporter in recognition of its storm preparedness efforts. A new welcome center built of reinforced concrete will serve as a storm shelter at the entrance of the camp. The shelter is meant to withstand 250 mph winds and missile projectiles up to 125 mph. Four other weather-proof shelters will be constructed at locations scattered around the camp. A communications system will be put in place and connect all the camp structures, with a camp command center tied in to NOAA All Hazards Weather Radio.

A memorial will be built on the concrete slab of what remains of the north shelter. An open-air chapel is planned for construction in September. The alter will be built around the remains of the chimney that collapsed on top of the scouts. Volunteers from the New York Fire Department will be working on the project as part of a "Pay it Forward" program, which also has helped rebuild portions of Greensburg, Kansas, after a direct hit in 2007 from an EF5 tornado.



Summer Outlook

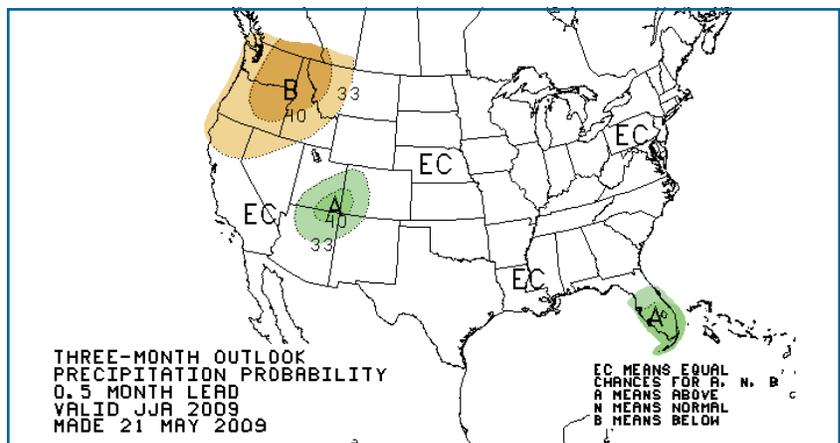
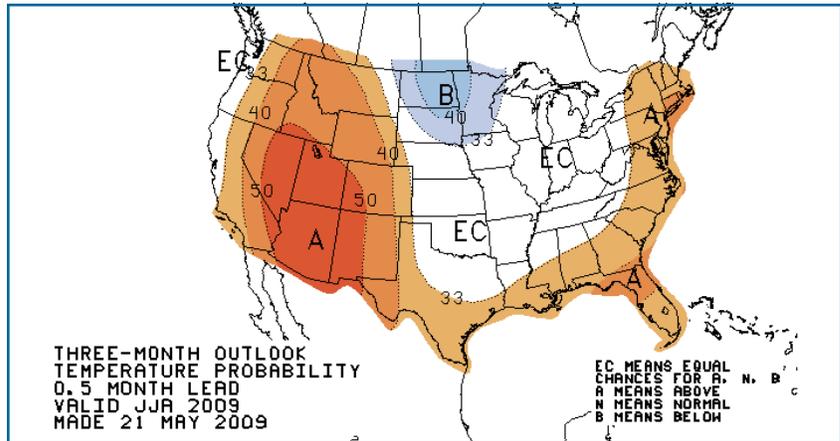
by Barbara Mayes, Meteorologist

For the summer months (June through August), the National Weather Service's Climate Prediction Center is indicating equal chances for temperatures and precipitation to be above, near, or below normal.

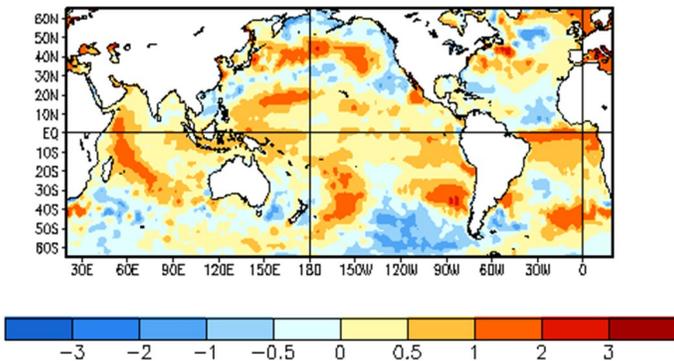
The "temperatures" that are forecast are an average of the daily highs and lows, which are then averaged over the entire 3-month period. The forecast for "equal chances" means that the Climate Prediction Center has no information to support higher chances of warm or cold temperatures than usual. Likewise, there is no information to support a forecast for higher chances than usual of being either dry or wet.

The National Weather Service also produces seasonal temperature forecasts for 10 points within eastern Nebraska and western Iowa. The forecast at one point, Omaha, is included for demonstration (image below). Like the forecast across the region, the Omaha outlook indicates equal chances for above, near, and below normal temperatures. These forecasts are available at:

http://www.weather.gov/climate/calendar_outlook.php?wfo=oax



Average SST Anomalies
10 MAY 2009 - 6 JUN 2009



The current ocean temperatures in the Pacific Ocean near the equator are near. The current state is known as "ENSO-neutral" conditions, with neither a La Niña nor an El Niño present. For 4 months over the winter, from January through April, La Niña conditions were present in the tropical Pacific Ocean, which affected weather patterns across the United States. Climate forecasts made by the Climate Prediction Center often include the affects of a La Niña or an El Niño, but without a strong signal to use, the climate forecasts become more difficult. The Climate Prediction Center is forecasting an El Niño to develop by late summer, as sea-surface temperatures in the Pacific Ocean near the equator continue to warm.

Flood Safety Information

by Jeff Reese, Hydrologist

What You Can Do Before the Flood...

When you receive a Flood Watch:

A Watch is issued when flooding is possible within the watch area. When a flood watch is issued, you should be aware of potential flood hazards. Everyone in a Watch area should be ready to respond and act quickly.

- ◆ Have an evacuation plan in place BEFORE flooding occurs. Flooded roads may cut off your escape route. Head for higher ground before the water becomes too deep. Remember – just six inches of rapidly flowing water can knock you off your feet. For information on how or what to do if you are advised to evacuate, visit the American Red Cross web page at: <http://www.redcross.org/>
- ◆ Know your flood risk and the elevation above which flooding occurs. Do streams or rivers near you flood easily? If so, be prepared to move to a safe place. Know your evacuation routes.
- ◆ Find out if you are located in a high, medium, or low flood risk area. Check with your city or government to find out if your community is participating in the National Flood Insurance Program. Start with the Building or Planning Department to review the Flood Insurance Rate Maps, published by the Federal Emergency Management Agency. Check out: <http://www.fema.gov/hazard/flood/info.shtm>
- ◆ Develop an evacuation plan. Everyone in your family should know where to go if they have to leave.
- ◆ Discuss flood plans with your family. Everyone should know what to do in case all family members are not together. Discussing flood plans ahead of time helps reduce fear and anxiety and lets everyone know how to respond.
- ◆ Determine if the roads you normally travel to reach your home or job will be flooded during a storm. If so, look for alternative routes to use during flooding.
- ◆ Keep a NOAA Weather Radio All Hazards, a battery-powered portable radio, emergency cooking equipment, and flashlights in working order with extra batteries.
- ◆ Have a professional install check-valves to your plumbing to prevent flood waters from backing up into the drains of your home.
- ◆ Keep your automobile fueled; if electric power is cut off, gas stations may not be able to operate pumps for days.
- ◆ Store drinking water in food-grade containers. Water service may be interrupted.
- ◆ Keep a stock of food requiring little cooking and no refrigeration; electric power may be interrupted.
- ◆ Keep first-aid supplies and prescription medicines on hand.

What You Can Do During the Flood...



When you receive a Flood Warning:

- ◆ If advised to evacuate, do so immediately! Families should use only one vehicle to avoid getting separated and reduce traffic jams. Move to a safe area before access is cut off by flood water. Continue listening to NOAA Weather Radio All Hazards, radio or television for information concerning the flooding.
- ◆ Don't drive if you don't have to.
- ◆ Get out of areas subject to flooding. This includes dips, low spots, washes, etc. Do not attempt to cross flowing streams.
- ◆ Never try to walk, swim, drive, or play in flood water. You may not be able to see how fast the flood water is moving or see holes or submerged debris.

Flood Safety Information, Cont'd

- ◆ Do not camp or park your vehicle along streams and washes, particularly during threatening conditions.
- ◆ Be especially cautious at night when it is harder to recognize flood dangers.
- ◆ Do not attempt to drive through a flooded road. The depth of water is not always obvious. The road bed may be washed out under the water, and you could be stranded or trapped.
- ◆ Do not drive around a barricade. Barricades are there for your protection. Turn around and go another way!
- ◆ If the vehicle stalls, leave it immediately and move to higher ground. Rapidly rising water may engulf the vehicle and its occupants, sweeping them away. Vehicles can be swept away by as little as two feet of water.
- ◆ Children should NEVER play around high water, storm drains, or viaducts. It is very easy to be swept away by fast-moving water.
- ◆ If you come upon a flowing stream where water is above your ankles, STOP! Turn around and go another way. Climb to higher ground. If it is moving swiftly, even water six inches deep can knock you off your feet. Many people are swept away wading through flood waters, resulting in injury or death.



What You Can Do After the Flood...

- ◆ Get necessary medical care at the nearest hospital. The American Red Cross can help by providing shelters, food, water, and first aid, as well as helping you meet your immediate disaster-caused needs.
- ◆ Do not visit disaster areas. Your presence might hamper rescue and other emergency operations.
- ◆ If the power is out, use flashlights, not candles.
- ◆ Use flashlights, not lanterns, torches, or matches, to examine buildings. Flammables may be inside.
- ◆ Report broken utility lines to appropriate authorities.
- ◆ Boil drinking water before using. Wells should be pumped out and the water tested for purity before drinking. If in doubt, call your local public health authority.
- ◆ If fresh or canned food has come in contact with flood waters, throw it out.
- ◆ Take steps to reduce your risk of future floods. Make sure to follow local building codes and ordinances when rebuilding, and use flood-resistant materials and techniques to protect yourself and your property from future flood damage.



Tornado Researchers Roaming the Plains

by Barbara Mayes, Meteorologist

The Verification of the Origins of Rotation in Tornadoes Experiment 2 (VORTEX2) is the largest and most ambitious field experiment in history to explore tornadoes. VORTEX2 is supported by National Oceanic and Atmospheric Administration (NOAA) and the National Science Foundation (NSF). Nearly 100 scientists and students from sixteen different universities and various other academic organizations in the United States are expected to take part in the experiment. VORTEX2 will also involve forecasters from the NOAA National Weather Service (NWS) forecast offices, the NOAA Storm Prediction Center, Environment Canada, the Australia Bureau of Meteorology, and Finland. The VORTEX2 team will include NWS Omaha/Valley lead forecaster Josh Boustead in its field operations.



The VORTEX2 teams will be looking to understand how, when and why tornadoes form. Answers to these questions will give researchers a better understanding of tornadoes and should help increase warning time for those in the path of these deadly storms.



VORTEX2, or V2, will use cutting-edge communication and computer technologies to deploy a fleet of approximately 40 vehicles, creating an observational network in and around a tornadic supercell thunderstorm. The "armada" of mobile weather instruments will roam the southern and central Plains from May 10-June 13, 2009 and again in 2010. VORTEX2 teams will also collect data with the NSSL Phased Array Radar (PAR) in central Oklahoma and with unmanned aerial systems (UAS) in northwest Kansas when tornadic storms are expected in those areas. Any severe weather observed by the VORTEX2 teams will be reported in real-time to local NWS fore-

One of the VORTEX2 vehicles in position in Goshen County, Wyoming, on June 5, 2009. Photo credit: Mike Coniglio

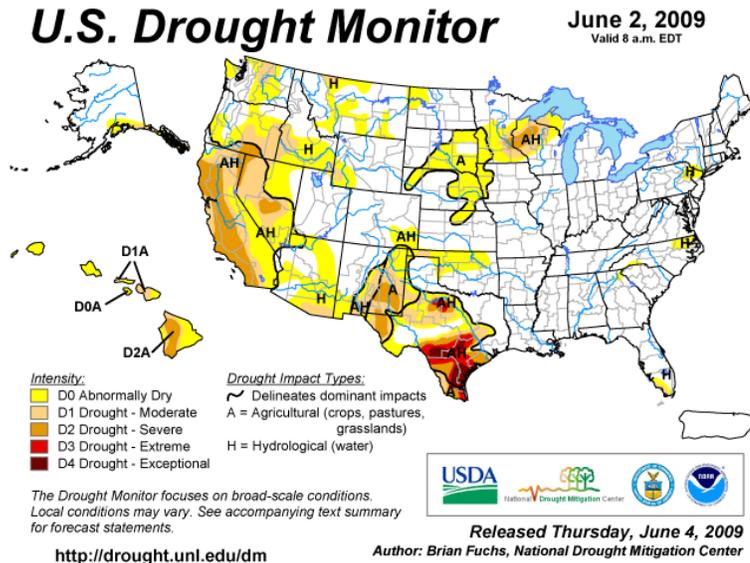


Dry Winter and Early Spring

By Barbara Mayes, Meteorologist

The winter and early spring months were unusually dry across much of the Plains and Midwest. Wintertime snowfall was about 10 inches below normal in Omaha, and precipitation deficits accumulated at all observing sites in eastern Nebraska and western Iowa between November and May. Fortunately, the region had a wet spring and early summer in 2008, or the dry spell could have created very dry topsoil.

The dryness was enough to warrant a "D0" designation on the U.S. Drought Monitor, indicating that conditions are abnormally dry, or in about the "droughest" 20% of the record. The region will be monitored closely for improvement or deterioration in the early summer months.



Cooperative Observer Awards

Several Cooperative Observers have been recognized this spring for their length of service. They are:

Ray Book	Harlan, Iowa	10 Years
Mike Fara	Irwin, Iowa	15 Years
David and Barbara Zavadil	Crofton, Nebraska	20 Years
Jim Lintin	Soldier, Iowa	25 Years
Robert Yost	Coleridge, Nebraska	30 Years

Thank you for your years of service!

NWS Omaha/Valley Staff Arrivals and Departures

NWS Omaha/Valley bids farewell in June to student employee Aubry Wilkins. Aubry graduated from Creighton University in May 2009 with a Bachelor of Science in Atmospheric Sciences. She has accepted a meteorological intern position at the National Weather Service office in Des Moines, Iowa. Good luck, Aubry!

NWS Omaha/Valley welcomed back former forecaster Josh Boustead, who returned as a lead forecaster beginning in April. Josh spent the last year at the National Weather Service office in Topeka, Kansas, as a lead forecaster. Josh is an Omaha native and a 2001 graduate of Creighton University.

Climatological and Astronomical Data

Compiled by Steve Klemm, Hydro-Meteorological Technician

Climatological Data for October, November, and December 2008

Location	Month	Average	Departure	Rain / Snow	Departure	Highest	Lowest
Omaha	Jan	20.8°	-0.9°	0.24" / 5.4"	-0.53"	55° (31st)	-16° (15th)
	Feb	29.8°	+1.8°	0.75" / 9.8"	-0.05"	62° (6th)	0° (28th)
	Mar	39.4°	+0.1°	1.05" / T	-1.08"	76° (16th)	-1° (1st)
	Apr	50.0°	-1.4°	2.21" / 0.6"	-0.173"	89° (24th)	20° (7th)
Lincoln	Jan	23.9°	+1.5°	0.38" / 5.6"	-0.29"	60° (22th)	-9° (15th)
	Feb	31.1°	+2.8°	0.64" / 8.1"	-0.02"	65° (6th)	1° (14th)
	Mar	40.0°	+0.6°	0.18" / T	-2.03"	79° (16th)	-1° (1st)
	Apr	50.1°	-1.1°	1.52" / T	-1.38"	90° (24th)	18° (1st)
Norfolk	Jan	21.6°	+1.2°	0.64" / 8.5"	+0.07"	52° (22nd)	-14° (15th)
	Feb	28.8°	+2.4°	0.88" / 5.1"	+0.12"	60° (24th)	-3° (28th)
	Mar	36.5°	-0.5°	1.18" / 1.1"	-0.79"	78° (16nd)	-11° (1st)
	Apr	47.6°	-1.5°	1.46" / 2.0"	-1.13"	91° (23rd)	18° (7th)

Normal High/Low Temperatures

Outlook for June, July, and August

Location	May 1	Jun 1	Jul 1	Aug 1
Omaha	69/45	80/56	87/64	87/66
Lincoln	69/45	80/56	88/64	89/66
Norfolk	69/43	78/54	85/61	86/64

The outlook for June, July, and August calls for equal chances for below, near, or above normal temperatures and precipitation. For additional details and other outlook information, please visit the Climate Prediction Center website at <http://www.cpc.ncep.noaa.gov/>

Sunrise/Sunset (http://aa.usno.navy.mil/data/docs/RS_OneYear.html)

Date	Omaha		Lincoln		Norfolk		Times are given in CDT (Central Daylight Time).
	Sunrise	Sunset	Sunrise	Sunset	Sunrise	Sunset	
May 1	6:21 am CDT	8:21 pm CDT	6:26 am CDT	8:23 pm CDT	6:26 am CDT	8:28 pm CDT	
Jun 1	5:53 am CDT	8:50 pm CDT	5:58 am CDT	8:52 pm CDT	5:57 am CDT	8:58 pm CDT	
Jul 1	5:54 am CDT	9:01 pm CDT	5:59 am CDT	9:02 pm CDT	5:58 am CDT	9:09 pm CDT	
Aug 1	6:18 am CDT	8:41 pm CDT	6:23 am CDT	8:43 pm CDT	6:23 am CDT	8:49 pm CDT	

Moon Phases

New Moon	First Quarter	Full Moon	Last Quarter
May 24	May 30	Jun 07	Jun 15
Jun 22	Jun 29	Jul 07	Jul 15
Jul 21	Jul 28	Aug 05	Aug 13
Aug 20	Aug 27	Sep 04	Sep 11



Summer Solstice (Start of Summer): June 21st, 2009, at 12:45 am CDT