



National Weather Service Aberdeen, South Dakota



July 2014

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Summer Heat — Be Prepared

Each year, heat kills at least 650 people on average in the United States — more than tornadoes, hurricanes, floods, lightning, or any other weather event combined.

“Heat can be a silent killer because it doesn’t topple trees or rip roofs off houses like tornadoes and hurricanes,” says Eli Jacks, chief of fire and public weather services with the National Weather Service. “Nevertheless, it’s a dangerous weather conditions for which people should prepare.”

How much heat can a person safely endure? It depends.

Certain groups of people should be especially careful during hot weather conditions. For example, city-dwellers and those living on the upper floors of tall buildings or in heat-prone regions are most at risk for heat-related illness. People who have difficulty getting around or who have health conditions are particularly susceptible. The elderly and the very young also merit special attention during periods of high heat and humidity.

The National Weather Service and the Occupational Safety and Health Administration have partnered again this year to increase awareness for outdoor workers and their employers during excessive heat events. As part of the effort, the National Weather Service will incorporate specific outdoor worker safety precautions when heat advisories and warnings are issued.

By taking some precautions, you can stay healthy while enjoying the great outdoors this summer:

1. Be informed and stay alert—Pay close attention to heat advisories or warnings that have been issued for your community.
2. Plan for periods of extreme heat.
3. Know what to do and what not to do during hot weather.
4. Know the warning signs of heat-related illness.

For further information, see the following page:
<http://www.nws.noaa.gov/os/heat/index.shtml>



Heat Safety

Summer heat can be hard to handle and stressful on the body. Below are some common summer heat disorders, and tips to keep yourself healthy during the hot and muggy days.

Heat Disorder	Symptoms	First Aid
Sunburn	Skin redness and pain, possible swelling, blisters, fever, headaches.	Take a shower, using soap, to remove oils that may block pores preventing the body from cooling naturally. If blisters occur, apply dry, sterile dressings and get medical attention.
Heat Cramps	Painful spasms usually in leg and abdominal muscles. Heavy sweating.	Firm pressure on cramping muscles or gentle massage to relieve spasm. Give sips of water. If nausea occurs, discontinue.
Heat Exhaustion	Heavy sweating, weakness, skin cold, pale and clammy. Weak pulse. Normal temperature possible. Fainting, vomiting.	Get victim to lie down in a cool place. Loosen clothing. Apply cool, wet cloths. Fan or move victim to air-conditioned place. Give sips of water. If nausea occurs, discontinue. If vomiting occurs, seek immediate medical attention.
Heat Stroke (Sun Stroke)	High body temperature (106+). Hot, dry skin. Rapid, strong pulse. Possible unconsciousness. Victim will likely not sweat.	Heat stroke is a severe medical emergency. Call 9-1-1 or emergency medical services or get the victim to a hospital immediately. Delay can be fatal. Move victim to a cooler environment. Try a cool bath or sponging to reduce body temperature. Use extreme caution. Remove clothing. Use fans and/or air conditioners. DO NOT GIVE FLUIDS.

Avoid the Heat. Stay out of the heat and indoors as much as possible. Spend time in an air conditioned space. Only two hours a day in an air-conditioned space can significantly reduce the risk of heat-related illness. Shopping malls offer relief if your home is not air-conditioned. If air conditioning is not available, stay on the lowest floor out of the sunshine. Remember, electric fans do not cool, they just blow hot air around.

Dress for the heat. Wear loose-fitting clothes that cover as much skin as possible. Lightweight, light-colored clothing that reflects heat and sunlight and helps maintain normal body temperature. Protect your face and head by wearing a wide-brimmed hat. Avoid too much sunshine. Sunburn slows the skin's ability to cool itself. Use a sun-screen lotion with a high SPF (sun protection factor) rating.

Drink FOR the Heat. Drink plenty of water and natural juices, even if you don't feel thirsty. Even under moderately strenuous outdoor activity, the rate your body can absorb fluids is **less** than the rate it **loses** water due to perspiration. However, if you have epilepsy or heart, kidney, or liver disease; are on fluid-restrictive diets; or have a problem with fluid retention should consult a doctor before increasing liquid intake.

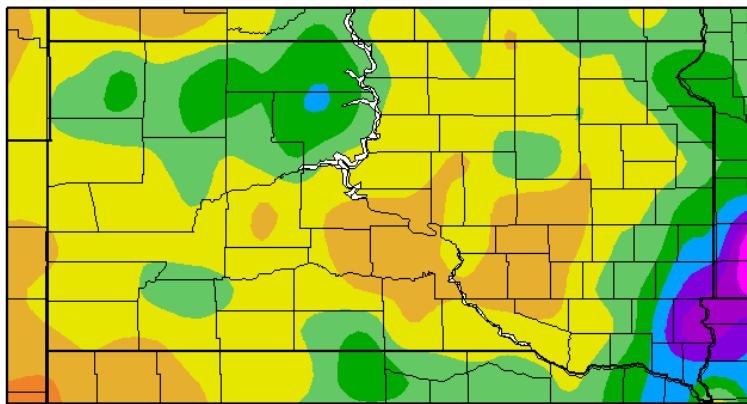
Do not drink IN the Heat. Avoid alcoholic beverages and beverages with caffeine, such as coffee, tea, and cola. Alcohol and caffeine **constrict blood vessels** near the skin reducing the amount of heat the body can release. Although beer and alcohol beverages appear to satisfy thirst, they actually cause further body dehydration

Living in the Heat. Slow down. Reduce, eliminate, or reschedule strenuous activities such as running, biking and lawn care work when it heats up. The best times for such activities are during early morning and late evening hours. Take cool baths or showers and use cool, wet towels.

A Very Wet and Cool June

June 2014 was a very wet and cool month across most of the region, especially across southeast South Dakota, southwest Minnesota, and northwest Iowa. Rainfall amounts across central and northeast South Dakota as well as west central Minnesota ranged from 3 to almost 10 inches. Rainfall amounts across southeast South Dakota, southwest Minnesota, and northwest Iowa ranged from 10 to 16 inches with Sioux Falls experiencing their wettest June on record with 13.70 inches. These rainfall amounts were anywhere from 150 to over 300 percent of normal June precipitation. As a result, widespread flooding and damage occurred southeast in the region. The charts below show these astounding amounts. In our region, the 9.89 inches at Timber Lake was the most June precipitation on record. The 8.67 inches at Sisseton was the second wettest June with the 7.91 inches at Mobridge tying for the third wettest June on record. Wheaton had their sixth wettest June on record with 8.04 inches. Both Aberdeen and Kennebec finished the month just below normal for precipitation. The cool trend continued across the region with most locations from 1 to 3 degrees below normal. Pierre had their tenth coolest June on record. Kennebec was our only location to get above 90 degrees for the month.

Precipitation (in)
6/1/2014 – 6/30/2014

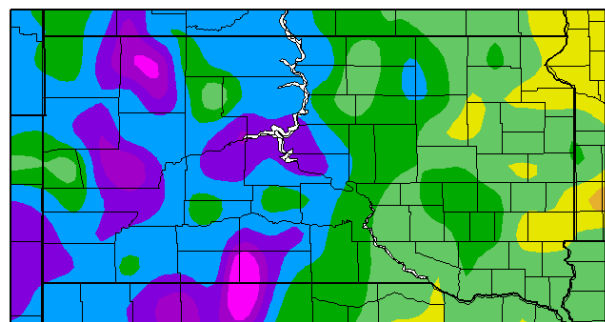
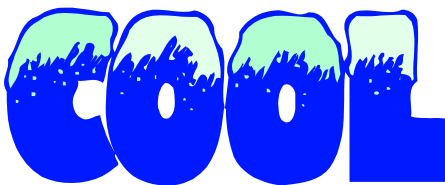


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Regional Climate Centers



Departure from Normal Temperature (F)
6/1/2014 – 6/30/2014



Generated 7/11/2014 at HPRCC using provisional data.

Regional Climate Centers

Weather Ready Nation Ambassadors



Building a Weather-Ready Nation requires more than government alone. It requires the entire Weather Enterprise to provide information for better community, business, and personal decision making, and innovative partnerships across all segments of society. We must involve everyone in an effort to move people – and society – toward heeding warnings, taking action, and influencing their circles of family, friends, and social network to act appropriately.

This is where the WRN Ambassador program comes into play. This initiative is an effort to formally recognize NOAA partners who are improving the nation's readiness, responsiveness, and overall resilience against extreme weather, water and climate events. WRN Ambassadors serve a pivotal role in affecting societal change – helping to build a nation that is ready, responsive and resilient to the impacts of extreme weather and water events. To be officially recognized as a WRN Ambassador, an organization must commit to:

- Promoting Weather-Ready Nation messages and themes to their stakeholders;
- Engaging with NOAA personnel on potential collaboration opportunities;
- Sharing their success stories of preparedness and resiliency;
- Serving as an example by educating employees on workplace preparedness

Any organization across all levels of government, businesses large and small, non-profit and non-governmental organizations, and academia can become a WRN Ambassador. The WRN Ambassador initiative is intended for organizations and designed to help serve the public by strengthening our national resilience against extreme weather events. If you or your organization would like to learn more about the WRN Ambassador program, contact our Warning Coordination Meteorologist Dave Hintz at david.hintz@noaa.gov

Are You Weather Ready?



In 2013, there were seven weather and climate disaster events with losses exceeding \$1 billion each across the United States. These events included 5 severe weather and tornado events, a major flood event, and the western drought/heat wave. Overall, these events killed 109 people and had significant economic effects on the areas impacted.

Yet, being prepared for severe weather doesn't have to be complicated or expensive. A few simple steps, such as having a disaster supplies kit, obtaining a NOAA Weather Radio and creating a Family Emergency Plan could help save your life.

Additionally, severe weather poses unique hazards for workers and employers. The Occupational Safety and Health Administration (OSHA) provides resources for workplace preparedness for and response to severe weather emergencies, including tornadoes. OSHA also provides information for workers involved in response and recovery operations for severe weather events. OSHA and NOAA encourage workers and employers to be aware of weather forecasts so that they can be better prepared.

When it comes to severe weather, we ask that you know your risk, take action and be an example in your community. Be a Force of Nature and help the National Weather Service build a Weather-Ready Nation, one that is prepared for severe weather whenever and wherever it strikes.

For further information, check out the following site:

<http://www.nws.noaa.gov/com/weatherreadynation>

New Employee



Ryan Lueck
Meteorological Intern

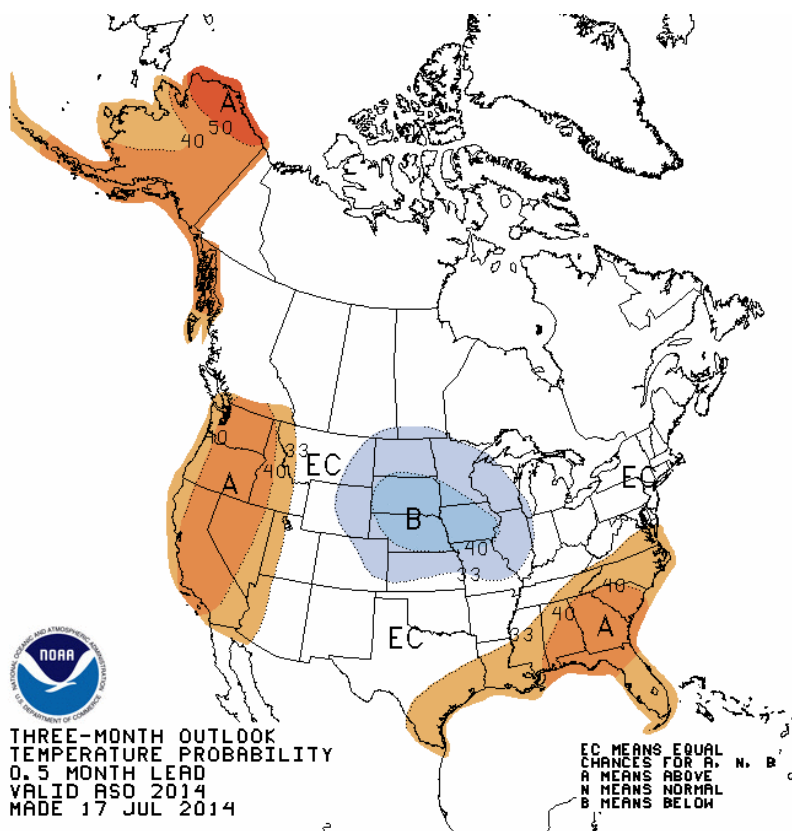
I was born and raised in Norwood Young America, MN (~35 miles west of downtown Minneapolis) along with my identical twin brother and younger sister. Weather became front and center in my life after a series of unusually intense storms passed through Southern MN during the spring and summer of 1998. I decided to pursue meteorology at Iowa State University in Ames, IA, where I received a BS in the field, and have spent the past two years at graduate school working on a master's degree involving upward lightning at the School of Mines in Rapid City, SD.

New

New

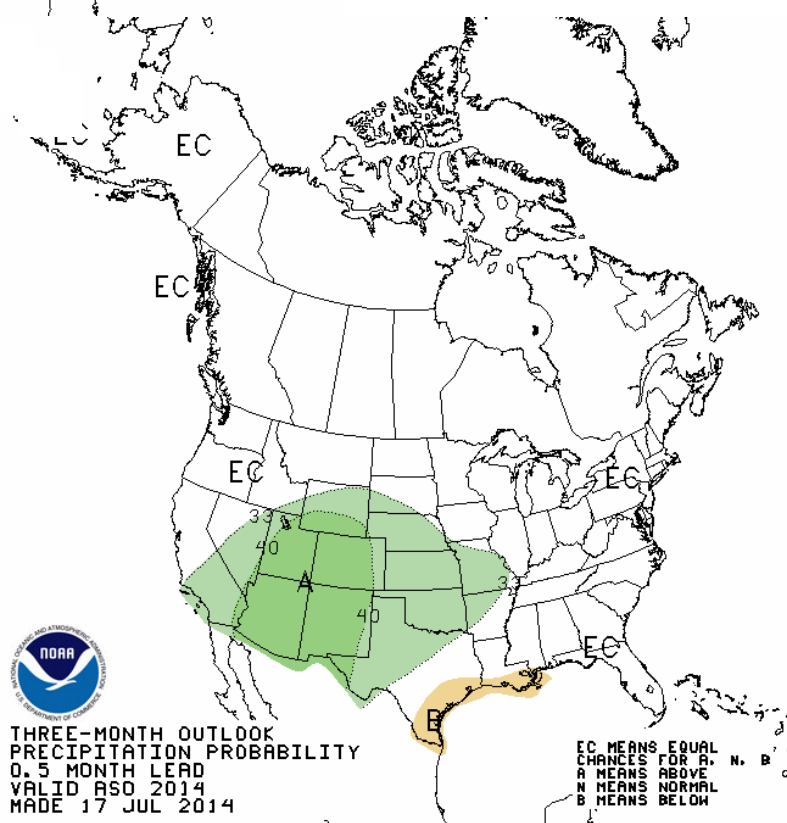
New

Seasonal Outlook - August through October



Temperature outlook for the months of August through October

Precipitation outlook for the months of August through October



Heat Index Chart

Temperature (°F)

	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										

Likelihood of Heat Disorders with Prolonged Exposure or Strenuous Activity

■ Caution
 ■ Extreme Caution
 ■ Danger
 ■ Extreme Danger

NATIONAL WEATHER SERVICE

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OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE, \$300

I love how summer
 wraps its arms around
 you like a warm
 blanky.
 ~Kellie Elmore

www.weather.gov/aberndeen