Heat Index Chart

% relative humidity

National Weather Service
824 Brown Co 14 S
Aberdeen SD 57401

OFFICIAL BUSINESS
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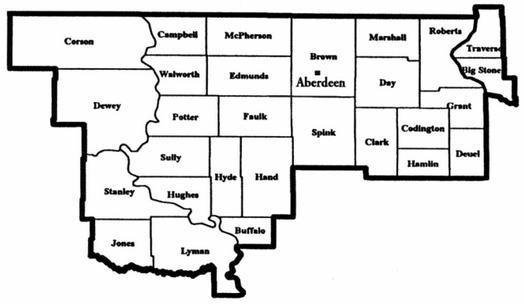
A perfect summer day is when the sun is shining, the breeze is blowing, the birds are singing, and the lawn mower is broken.

~ James Dent

We're on the Internet
http://www.crh.noaa.gov/abr



SKY SCANNER

National Weather Service Forecast Office
Aberdeen, South Dakota

July 2006

Record Heat hits the Region

The weekend of July 14th-16th was a real scorcher across the state of South Dakota. Temperatures soared into the 90s and lower 100s each of the three days. Numerous record or near record high temperatures were set on Saturday, July 15th. Following is a list of the high temperatures that occurred that day.

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PIERRE.........117
MOBRIDGE.......116
ONIDA..........116
MISSION RIDGE..116
MURDO..........114
REDFIELD.......112
TIMBER LAKE....112
KENNEBEC.......112
BLUNT..........112
STEPHAN........111
CONDE..........110
GANN VALLEY....110
ABERDEEN.......109
SISSETON.......105
SAND LAKE NWR..104
WATERTOWN......103
ROY LAKE.......103
WILMOT.........103
ORTONVILLE.....102
WEBSTER........102
WHEATON........101
VICTOR.........101
CASTLEWOOD.....99
CLEAR LAKE.....97
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INSIDE THIS ISSUE:

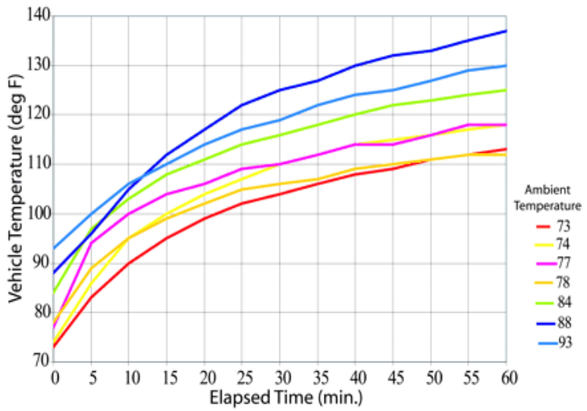
The Deadly "Dog Days"

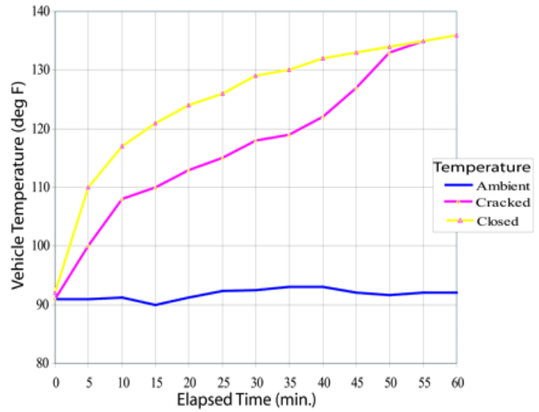
by Stan Keefe

The dog days of summer are upon us. The "dog days" are generally thought to be that period in the summer marked by high temperature and high humidity. These days can cause discomfort in healthy people. They can also bring on hyperthermia…the opposite of hypothermia. Hyperthermia can be deadly, especially in the young and elderly. Heat stress has a cumulative effect. Today a person can work outdoors in the sun, but tomorrow may get started and have to quit early due to dizziness or fatigue. Both of these symptoms can be brought on by over exposure to the sun. Taken to the extreme, over exposure to sun and heat can lead to seizure and death.

There is a way to make a bad situation even worse. That is to be inside a car without air conditioning, and with the windows rolled up. Every year this area is visited with unnecessary tragedy when people leave children in a closed car. This is also deadly for the elderly and pets.

Did you know the temperature in your car can rise forty degrees in less than one hour? Did you know that leaving the windows open an inch of so "to allow a breeze" does very little to help? These graphs show how fast the temperature rises inside a closed car and one with the windows cracked.





*graphs courtesy of Dr. Catherine McLaren, MD.

The message is clear. Respect the heat. Limit your exposure and protect those in your care.

The National Weather Service has prepared a demonstration of how fast a car can heat up when left in the sun. We will be at the Brown county fair August 15th through 20th. We will have a car with a temperature sensor inside and out. See for yourself how fast the temperature can climb in a closed car.

This demonstration will be available for other groups at other locations. Contact the National Weather Service in Aberdeen (605) 225-0519. Ask for Jim Scarlett and work out a time and location. We would be glad to talk about heat safety, lightning safety, or just general hazards the atmosphere can pose.

For more information on heat stress and hyperthermia in children see this article in the journal **Pediatrics:** Heat Stress From Enclosed Vehicles: Moderate Ambient Temperatures Cause Significant Temperature Rise **in** Enclosed Vehicles

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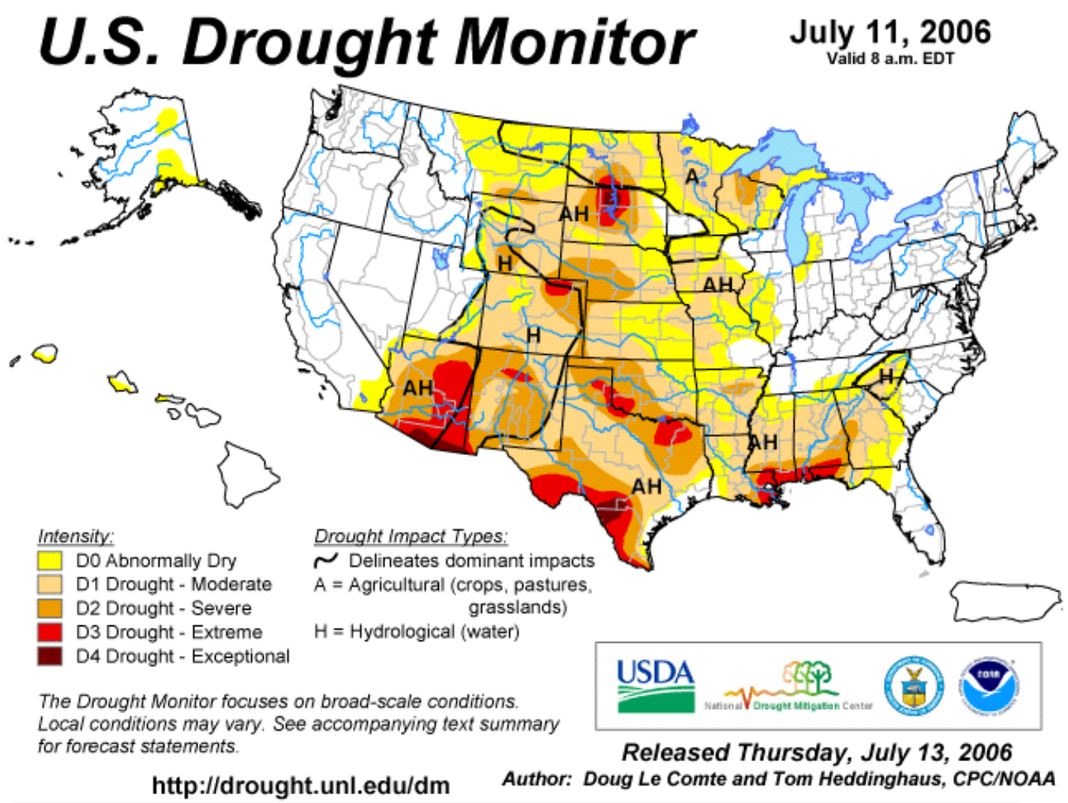
Drought Information



POLLOCK'S DALE AND DONNA MEYER AND IPSWICH'S MARVIN SEYER HONORED FOR CONTRIBUTIONS TO NATIONAL WEATHER SERVICE VOLUNTEER OBSERVER PROGRAM

Recognizing over 25 years of service to America, NOAA's National Weather Service has named Pollock, S.D., residents Dale and Donna Meyer 2006 and Ipswich resident Marvin Seyer recipients of the agency's John Campanius Holm Award for outstanding service in the Cooperative Weather Observer Program. The award is the agency's second most prestigious and only 25 are presented this year to deserving cooperative weather observers from around the country.

"Cooperative observers are the bedrock of weather data collection and analysis," said retired Brig. Gen. David L. Johnson, director of NOAA's National Weather Service. "Satellites, high-speed computers, mathematical models and other technological breakthroughs have brought great benefits to the Nation in terms of better forecasts and warnings. But without the century-long accumulation of accurate weather observations taken by volunteer observers, scientists could not begin to adequately describe the climate of the United States. We cannot thank Mr. and Mrs. Meyer and Mr. Seyer enough for their years of service to America."

James Scarlett, meteorologist in charge of NOAA's Aberdeen weather forecast office, will present the award to Mr. Seyer at an award ceremony at the Weather Service office in Aberdeen on August 17th. The Meyers will receive their award at a ceremony to be held in Pollock at a date and time to be decided. Program manager Timothy M. Kearns of the Aberdeen office nominated the couple for the award.

The NWS Cooperative Weather Observer Program has given scientists and researchers continuous observational data since the program's inception more than a century ago. Today, more than 11,700 volunteer observers participate in the nationwide program to provide daily reports on temperature, precipitation and other weather factors such as snow depth, river levels and soil temperature.

Marvin Seyer became an official observer at the Ipswich site on September 1, 1975. The Meyers became official observers at the Pollock site on May 1, 1980. Over the years, both award recipients have braved the extremes of South Dakota weather, including record heat of 1988, blinding snow storms of winter 1996-97 when wind chills were close to 100 degrees below zero and waded through knee-deep floods to take readings.

Weather records retain their importance as time goes by. Long and continuous records provide an accurate picture of a locale's normal weather, and give climatologists and others a basis for predicting future trends. These data are invaluable for scientists studying floods, droughts and heat and cold waves. At the end of each month, observers mail their records to the National Climatic Data Center (NCDC) for publication in "Climatological Data" or "Hourly Precipitation Data."

The first extensive network of cooperative stations was set up in the 1890s as a result of an 1890 act of Congress that established the U.S. Weather Bureau. Many of the stations have even longer histories. John Campanius Holm's weather records, taken without benefit of instruments in 1644 and 1645, were the earliest known recorded observations in the United States.

Many historic figures have also maintained weather records, including Benjamin Franklin, George Washington and Thomas Jefferson. Jefferson maintained an almost unbroken record of weather observations between 1776 and 1816, and Washington took weather observations just a few days before he died. The Jefferson and Holm awards are named for these weather observation pioneers.

NOAA's National Weather Service is the primary source of weather data, forecasts and warnings for the United States and its territories. NOAA's National Weather Service operates the most advanced weather and flood warning and forecast system in the world, helping to protect lives and property and enhance the national economy.

In 2007, NOAA, an agency of the U.S. Department of Commerce, celebrates 200 years of science and service to the nation. From establishment of the U.S. Coast and Geodetic Survey by Thomas Jefferson in 1807 to formation of the Weather Bureau and the Bureau of Commercial Fisheries in the 1870s, much of America's scientific heritage is rooted in NOAA.

NOAA is dedicated to enhancing economic security and national safety through the prediction and research of weather- and climate-related events and providing environmental stewardship of the Nation's coastal and marine resources. Through the emerging Global Earth Observation System of Systems (GEOSS), NOAA is working with its federal partners and more than 60 countries to develop a global monitoring network that is as integrated as the plant it observes.

Local Three Month Temperature Outlook

by Dan Mohr

The National Weather Service has developed a Local 3-Month Temperature Outlook (L3MTO) product to compliment the Climate Prediction Centers' National 3-Month Temperature Outlook. These local outlooks will be available via our webpage (under the climate tab) for 10 different locations across Aberdeen's County Warning Area. The L3MTO provides the user with a site specific, three month temperature outlook for time frames as close as two weeks to as far away as one year.

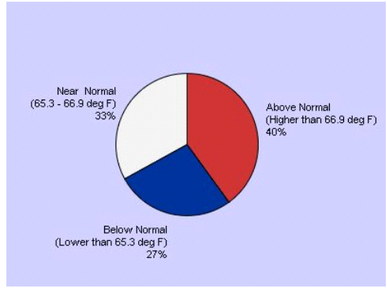
On each Thursday of the month, the Climate Prediction Center (CPC) produces temperature and precipitation outlooks for the United States. These outlooks provide the user with the big picture of the expected temperature and precipitation. Conversely, the L3MTO was developed in order to provide the users with site specific information for several locations in their area.

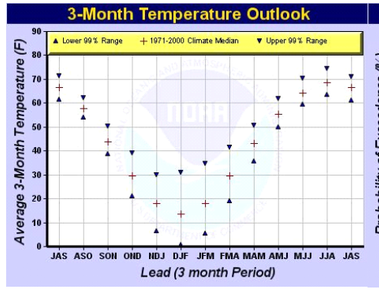
Some of the locations within the Aberdeen County Warning Area that will have this new L3MTO are Pierre, Mobridge, Timber Lake, Aberdeen, and Watertown. As mentioned earlier, these outlooks will be available on WFO Aberdeen's website (www.weather.gov/abr) under the climate tab. The new outlooks will be presented in several different formats including range graphs, pie charts, probability curves, text products, and tables. Also, background information will be provided for product descriptions, helpful resource information, along with a question and feedback section.

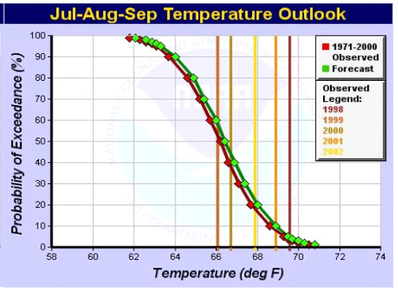
The L3MTO product is a probabilistic forecast providing the user with the chance (expressed as a percentage) that the 3 month average temperature will either be above, below, or near the 30-year climatological average temperature (1971-2000). The climatological probability of the 3 month average temperature being in the below, near, or above normal temperature range is 33.3% for each category. For example, if the Climate Prediction Center's (CPC) forecast for a particular 3 month period shows a higher probability of above normal temperatures for our region, the local outlook will provide more detail via various graphs and charts showing how this translates down to the local scale. If the users were to view a pie chart for Aberdeen, it would show the probabilistic forecast for this 3 month period for each of the 3 categories of below, near, and above normal temperatures.

It is important to note that the local temperature outlook does not provide detail on day-to-day, week-to-week, or month-to-month variability and the likelihood of an exact temperature occurring is near zero. Also, a forecast of equal chances (EC) for a region means that none of the forecast tools used by the Climate Prediction Center show sufficient enough confidence to provide a forecast for either one of the 3 categories of below, near, and above normal.

Take a look at the new Local 3 Month Temperature Outlook on our website or any other website across the country after July 20th and provide us some feedback or contact us if you have any questions about the product or its contents.







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When significant or unusual weather events occur, give us a call! We're always happy to hear from the public, especially if you're calling to report hail, strong winds, or tornadoes. Don't wait until the next day...call us when it's happening.

10th Anniversary of Aberdeen Tornado

By Scott Doering

May 31, 1996 – On this date, a storm moved from Central Dewey County to Marshall County, producing numerous tornados, large hail, and high winds. Isabel, in Dewey County, had the first report of severe weather with nickel size hail at 215 pm. By 241 pm, a brief touchdown of a narrow path tornado occurred 21 miles west of La Plant with no damage reported. Path length and width were estimated at 0.3 miles and 10 yards respectively. This storm continued to track off to the ENE and at 340 pm, a severe thunderstorm wind gust occurred 5 S of Mound City in Campbell County.

Between 353 and 412 pm, large hail was observed in Edmunds County. Ten miles south of Ipswich, golf ball size hail had broken car windows and dented several cars. Just to the East of Ipswich in Craven Corner, baseball size hail damaged several vehicles. The storm intensified and produced a tornado in Brown County at 425 pm. This brief touchdown occurred 5 miles SW of Aberdeen with no damage reported. The F0 tornado had an estimated path length and width of 0.3 mile and 15 yards. Four minutes later, another tornado touched down 3 miles SW of Aberdeen and collapsed the west side of a quonset hut...bending the steel frame beams. The F1 tornado also tossed a light weight grain bin 100 feet into a row of trees. At 440 pm, a narrow path F0 tornado touched down near Northern State University in Aberdeen and continued to 10th Avenue SE. The tornado knocked over a tall fence surrounding the tennis courts and broke branches off many trees.

The next tornado in Brown County occurred at 452 pm and had a length of 27 miles with a width of 400 yards. This tornado started off as an F1 over the parking lot of the Target Shopping Center in Aberdeen and tracked towards Bath. It destroyed a green house and its contents in the Target parking lot, and uprooted and snapped trees as it crossed U.S. Highway 12. In addition, it took out the south wall of a cinder block warehouse, including a large overhead door, broke out windows and lifted a box car off the train tracks. A pickup truck and its occupant were thrown about 70 feet...the occupant was only slightly injured. Between Aberdeen and Bath, the tornado contained multiple vortices as it strengthened to an F3, the first in Brown County since July 1st, 1973. Most trees in a shelter belt northeast of Aberdeen were snapped or uprooted and a garage was completely destroyed. Several farms were hit 1 to 2 miles north of Bath. Many outbuildings were destroyed. Two layers of shingles were peeled off a garage and several more trees uprooted. Twelve to fifteen high tension utility poles were damaged or destroyed and seventeen wooden poles were damaged along the path of the tornado. The outages caused by the tornado affected several hundred customers.

The tornado continued to the northeast producing F1 damage between Bath, Putney, and Claremont. It snapped and uprooted many trees. Outbuildings like grain bins and calf barns were destroyed. Debris was deposited 1 mile away in some instances. A John Deere chopper was turned 180 degrees by the twister. The tornado continued on into Marshall County where it weakened and dissipated near Amherst. Little damage was reported in Marshall County...only reports of some downed trees. Property damage was estimated at three quarters of a million dollars. Two more, smaller tornadoes, F0, also occurred in Brown County. One was 3 E of Aberdeen and the other 2 E of Putney.

Fujita Scale

[redacted]

Tornado behind the Lakewood Mall

Damage to an area business