



National Weather Service Aberdeen, South Dakota



January 2015

Inside this issue:

Skywarn Spotter Raining 2015 1

Cold Advisory for Newborn Live-stock (CANL) 2

Cold Advisory for Newborn Live-stock (cont.) 3

2014 Weather Statistics and Events 4

2014 Weather Statistics and Events (cont.) 5

2014 Climate Review 6

Historical Weather Data 7

Skywarn Spotter Training 2015

Here are the scheduled Skywarn Talks for 2015.

March

10: 7pm CDT: Spink County – Location to be determined

11: 7pm CDT: Hand County – Miller Fire Department

19: 6pm CDT: Roberts County – Location to be determined

24: 3pm CDT: Codington County – Codington Co. Extension office

7pm CDT: Hamlin County – Castlewood Fire Department

26: 7pm CDT: Hughes/Stanley Counties – River City Transit Bldg in Pierre

April

23: 6pm CDT: Brown County – Basement of county courthouse in Aberdeen

There are no requirements needed to take class, other than a general interest in severe weather and the willingness to pass your weather report onto the authorities. Classes are still being scheduled, so please check the following page for any additions to this list.

<http://www.crh.noaa.gov/abr/?n=skywarnschedule.php>

If you have any questions or for more information, you can contact [Dave Hintz, Warning Coordination Meteorologist](#).



Cold Advisory for Newborn Livestock (CANL)

Calving season can be challenging when extremely cold conditions, wind, and precipitation affect the health of newborn livestock. A resource at the National Weather Service's website can help producers forecast and prepare for these weather conditions if they anticipate some newborns on the farm or ranch.

The Cold Advisory for Newborn Livestock (CANL) forecast was created with input from northern U.S. ranchers, experts in animal science, and those who study biological responses to extreme weather conditions. The CANL forecast takes into account five factors: wind chill; rain or wet snow; high humidity; combinations of wind chill and precipitation; and sunshine vs. cloudy days.

As a result, it is a quick and easy way to combine several weather factors together to determine the hazardous weather risk to your newborn livestock. A six-category scale (See Figure 1) was developed to identify the risk of hazardous conditions for newborn livestock, ranging from None (green color) to Extreme (red color). The categories are described as:

- **NONE:** Wind chill above 4° F
 - **SLIGHT:** Wind chill less than 41° F for 2 or more hours
 - **MILD:** Wind chill less than 32° F for 2 or more hours
 - **MODERATE:** Wind chill less than 0° F for 2 or more hours or Wind Chill less than 32 ° F and .02" precipitation
 - **SEVERE:** Wind Chill of -9° F or colder for two or more hours, or wind chill of less than 32° F and .05" of precipitation
- EXTREME:** Wind chill of -18° F or colder for two or more hours, or wind chill less than 32° F and .1" of precipitation



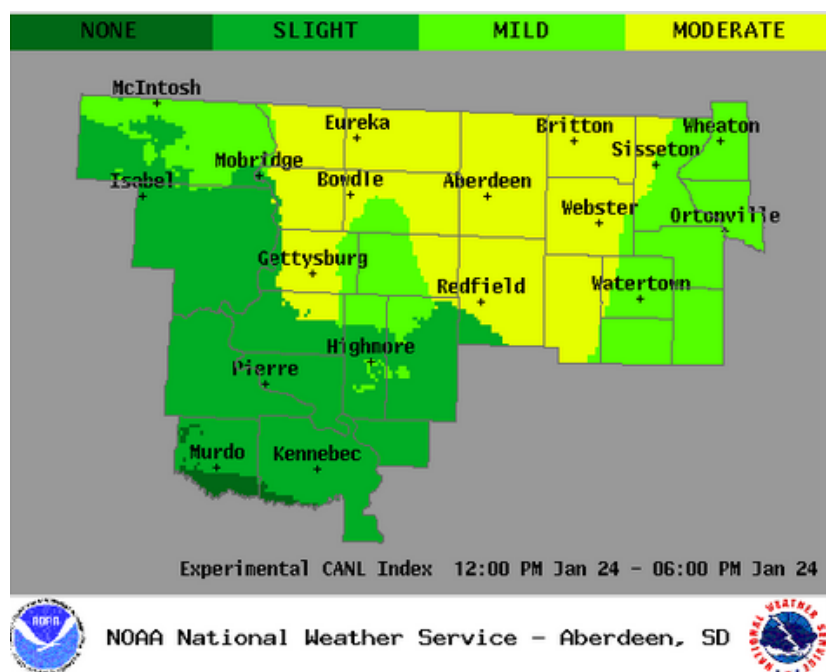
Cold Advisory for Newborn Livestock (cont.)

Figure 1: Six-category scale to identify the risk of hazardous conditions for newborn livestock.



These risk categories are displayed on a map of northeastern South Dakota, and they are updated at least once-per-day. An example of the CANL forecast map looks like the map below (See Figure 2). This map for January 24, 2015 shows the risk categories that are forecast.

Figure 2: Example of the CANL forecast map hazard areas in SD.



The forecast graphics for CANL can be found at the following web address:

<http://www.crh.noaa.gov/abr/canl/forecasts.php>



2014 Monthly Weather Statistics and Events

January 2014

-Powerful Alberta clippers brought a month of extremes with high winds, extreme wind chills, along with six blizzards.

-Fifteen to 20 days with wind gusts over 30 mph with 5 to 10 days with wind gusts over 40 mph. Peak wind gusts for the month were from 54 to 69 mph.

-Large temperature swings with highs for the month in the 40s and lower 50s and lows in the single digits and teens below zero. Temperature differences between highs and lows were as much as 60 to 70 degrees.

-Some of the lowest wind chills in years occurred on January 5th and 6th with wind chills from as low as 40 below to 56 below zero across the region.

February 2014

-Very cold with average temperatures from 9 to 11 degrees below normal. Top fifteen coldest Februarys on record. Wheaton had its third coldest February on record with the Sisseton the ninth coldest.

March 2014

-Pierre had its all-time record low temperature for March of 20 degrees below zero on the 1st and 2nd and then tied their record high of 70 degrees on March 9th. The storm on March 31st featured rain, freezing rain, heavy sleet, heavy snow, thunderstorms, hail, wind gusts to 40 to 60 mph, along with some funnel clouds. Two to 10 inches of snow combined with the high winds to bring blizzard conditions across the region. It was amazing in west central Minnesota where a tornado touched down, blizzard conditions occurred just a few hours later.

April 2014

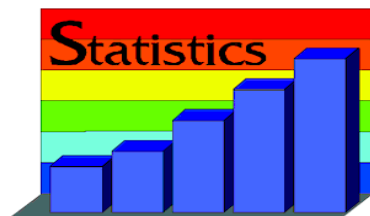
-Cooler than normal with near to above normal precipitation across the region.

May 2014

-Very cold start to May with average temperatures nearly 10 degrees below normal by the middle of May. Very warm to hot conditions from the 29th through the 31st with highs in the upper 80s and lower 90s across the region. On May 30th, very heavy rains of 3 to nearly 7 inches caused flash flooding across parts of Hyde, Hand, and Edmunds counties.

June 2014

-Very wet and cool. Monthly rainfall amounts ranged from 3 to 10 inches across the region. Rainfall amounts across southeast South Dakota ranged from an astounding 10 to 16 inches resulting in widespread flooding and damage. Sioux Falls recorded their wettest June on record with 13.70 inches. The 9.89 inches at Timber Lake was their wettest June on record. The 8.67 inches at Sisseton was their second wettest June. Mobridge tied for their third wettest with 7.91 inches. Also, five tornadoes touched down in Hyde, Buffalo, and Hand counties with two farms receiving damage. This was the same day as the devastating tornado in Wessington Springs.



2014 Monthly Weather Statistic and Events (cont.)

July 2014

-A dry and cool month. The rainfall shut down for a month across the region with several locations having among their driest Julys on record. Rainfall deficits were from 1 to 3 inches across the region. Aberdeen had its fifth driest July since 1893 with 0.70 inches. Kennebec had their fourth driest July since 1893 with only 0.24 inches. Timber Lake had their sixth driest July with only 0.55 inches. Ipswich had their driest July on record with only 0.15 inches. Aberdeen, Sisseton, Pierre, and Wheaton, Minnesota all had their top ten coolest Julys on record.

August 2014

-Wet and cool. The average daily high temperatures for the month were in the top ten coolest for all locations across the region. Wheaton, Pierre, and Mobridge were all in the top five coolest Augusts for high temperatures. Mobridge was second coolest on average highs with 6.4 degrees below normal. Pierre had their third coolest average high on record with 5.2 degrees below normal. Wheaton had its fifth coolest average high on record with 3.2 degrees below normal. After a dry July, several locations had one of their top five wettest Augusts on record. Timber Lake was the wettest on record with 5.82 inches while Mobridge had their third wettest August on record with 4.76 inches. Aberdeen had their fourth wettest August on record with 6.19 inches. After having their driest July on record with 0.15 inches, Ipswich had their second wettest August on record with 6.28 inches. On August 23rd and 24th, 2 to over 4 inches of rain in and around Aberdeen caused flash flooding mainly in eastern Aberdeen where some cars were stranded and people had to be rescued.

September 2014

-The twelve month cooler than normal trend ended with near to slightly above normal temperatures for September. September was also drier than normal.

October 2014

-Warmer and drier than normal across the region with average temperatures from 2 to 3 degrees above normal. Rainfall amounts were 1 to 2 inches below normal for the month with the drought area expanding across parts of northeast South Dakota.

November 2014

-Very cold with bitter Arctic air dominating for much of the month. The month started out warm with highs in the 50s and 60s. After a snowstorm early on, Arctic air moved in and pretty much remained through the month. Snowfall amounts from 3 to 10 inches occurred across northern and northeast South Dakota on the 9th and 10th. Average monthly temperatures were from 6 to 8 degrees below normal with all locations finishing out in their top ten coldest on record. For the entire state, South Dakota had its tenth coldest November on record.

December 2014

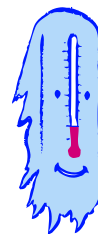
-Warmer and drier than normal. The month featured quite a few days with low clouds and fog across the region. A short-lived blizzard occurred across parts of northeast South Dakota and west central Minnesota on December 15th. At Aberdeen, only four days were below zero in December with 19 days below zero last December 2013.



2014 Climate Review

Temperature Data	Aberdeen	Sisseton	Wheaton	Watertown
Warmest Temperature/Date	91 / Jul 5 th	93 / May 30 th	91 / May 31 st	90 / Jul 11 th
Coldest Temperature/Date	-27 / Jan 2 nd	-24 / Jan 2 nd	-23 / Jan 7 th	-27 / Jan 2 nd
Average Yearly High/Departure from Normal	52.6 / -2.0	52.0 / -2.5	50.3 / -4.8	50.9 / -2.7
Average Yearly Low/Departure from Normal	28.6 / -2.9	31.2 / -1.8	30.2 / -2.8	30.1 / -2.4
Yearly Average/Departure from Normal	40.6 / -2.4	41.6 / -2.1	40.3 / -3.8	40.5 / -2.5
Precipitation/Wind Data				
Yearly Precipitation / Departure from Normal	17.78 / -3.94	23.70 / +1.37	23.05 / +0.67	16.43 / -5.65
Highest Wind Gust MPH / Date	69 / Jan 16 th	66 / July 21 st	N/A	56 / Mar 31 st

Temperature Data	Pierre	Kennebec	Mobridge	Timber Lake
Warmest Temperature/Date	104 / Jul 21 st	106 / Jul 21 st	95 / Jul 20 th	96 / Jul 20 th
Coldest Temperature/Date	-20 / Mar 2 nd	-22 / Mar 2 nd	-19 / Feb 10 th	-19 / Feb 6 th
Average Yearly High/Departure from Normal	57.0 / -2.2	60.8 / -0.1	54.5 / -2.3	54.6 / -1.6
Average Yearly Low/Departure from Normal	32.7 / -2.9	32.3 / -1.0	31.4 / -1.7	31.3 / -0.7
Yearly Average/Departure from Normal	44.9 / -2.5	46.6 / -0.4	42.9 / -2.0	43.0 / -1.2
Precipitation/Wind Data				
Yearly Precipitation / Departure from Normal	18.77 / -1.24	15.43 / -1.92	21.81 / +3.94	24.91 / +7.29
Highest Wind Gust MPH / Date	64 / Jun 28 th	N/A	62 / Jul 24 th	N/A



Historical Weather Data

Ever wonder what the hottest temperature was in your hometown? How about how much rain fell on a certain day? Well, if you have a computer, the answer to these questions is just a few keystrokes away. By simply visiting the NOAA Online Weather Data (NOWData) page located on our website, you'll have access to literally thousands of pieces of climate data for your local area. You can access the NOWData page by pointing your browser to <http://www.weather.gov/climate/xmacis.php?wfo=abr>. From the NOWData page, you can select the town of interest, choose which product you'd like to see, select a date, and press go, within seconds, the program will search through our climate database and return your requested information. It's that simple! So, if you were wondering what the month of December 1899 was like in Mellette South Dakota, head to our NOWData page for the answer.

The screenshot displays the NOAA Online Weather Data (NOWData) website for Aberdeen, SD. The page is titled "NOWData - NOAA Online Weather Data" and features a navigation menu with options like "Observed Weather", "Climate Locations", "Climate Prediction", "Climate Resources", "Local Data/Records", "Astronomical", and "NOWData". The "NOWData" option is selected.

The main content area is divided into four sections:

- 1. Location »**: A list of locations in South Dakota, with "Mellette 4W, SD" selected.
- 2. Product »**: A list of product options, with "Daily data for a month" selected.
- 3. Options »**: A "Date:" field set to "1898-12" and a "Go" button.
- 4. View »**: A "Go" button to execute the search.

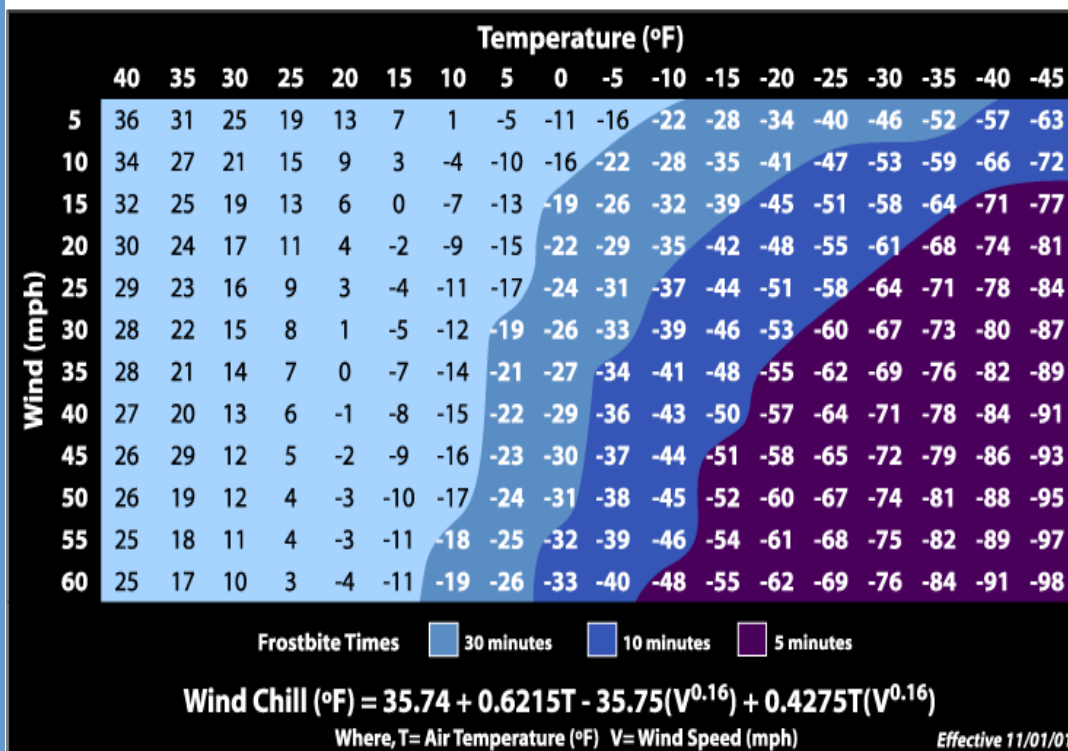
Below the search options, there is a "Product Description:" section that reads: "DAILY DATA FOR A MONTH - daily maximum, minimum and average temperature (degrees F), average temperature departure from normal (degrees F), heating and cooling degree days (base 65), precipitation, snowfall and snow depth (inches) for all days of the selected month. Basic monthly summary statistics are also provided."

At the bottom of the page, there is a "Powered by ACIS" logo and a paragraph stating: "The Applied Climate Information System (ACIS) is a joint project of the Regional Climate Centers, the National Climatic Data Center and the National Weather Service. Official data and data for additional locations are available from the Regional Climate Centers and the National Climatic Data Center."

The footer contains contact information for the Aberdeen Weather Forecast Office, including the address "824 Brown County 14 South, Aberdeen, SD 57401", phone number, and website. It also includes links for "Disclaimer", "Credits", "Glossary", "Privacy Policy", "About Us", and "Career Opportunities".



Wind Chill Chart



NATIONAL WEATHER SERVICE

824 Brown County 14 South
Aberdeen, SD
57401

Phone: 605-225-0519

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE, \$300

Even in winter an isolated patch of snow has a special quality.

~ Andy Goldsworthy

www.weather.gov/aberndeen