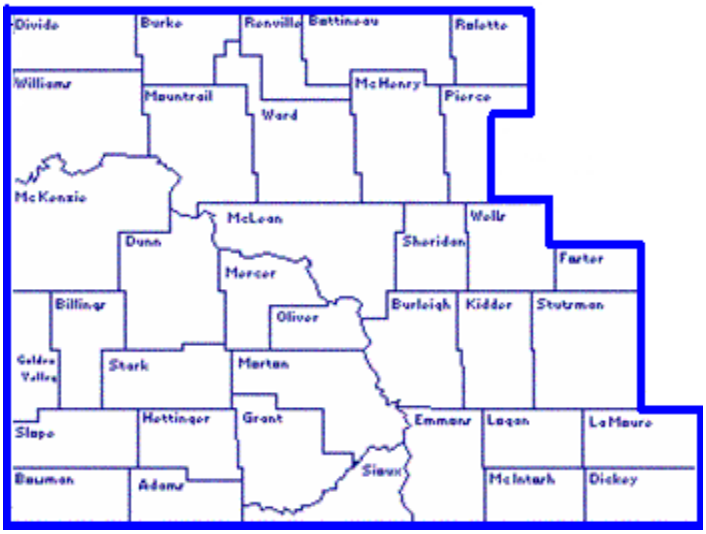
Spring
2007

Dakota Skies

Bismarck North Dakota National Weather Service

A map of the Bismarck CWA (County Warning Area) area of responsibility. We issue graphical and text weather products such as warnings and forecasts for 36 counties in western and central North Dakota. The office has 23 employees of which 13 are meteorologists. We are here to serve 24 hours a day, seven days a week, year round.



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TEST tornado **DRILL** set for WEDNESDAY, APRIL 25!

A TEST tornado warning DRILL will be conducted on Wednesday, April 25, 2007. The statewide TEST warning will be issued by NOAA's National Weather Service in conjunction with the North Dakota Department of Emergency Services around 11:15 AM CDT. *This is a *full* test with Weather Radio Alarm and EAS (Emergency Alert System) tones!*

Severe Summer Weather Awareness Week is April 23 through 27

North Dakota Governor John Hoeven designated the week of April 23-27, 2007, as "Severe Summer Weather Awareness Week" in North Dakota. Now is a good time to re-familiarize yourself with summer terms and safety rules. Prepare yourself and your family to be weather safe this summer.

Be sure you know what watches and warnings are, how to receive them, and what to do once they are issued by your NWS (National Weather Service). Familiarize yourself with the latest safety tips. Prepare now to be safe later. Continued page 3.

About this Publication

Dakota Skies is published twice each year, in the spring and in the fall, by the WCM (Warning Coordination Meteorologist) at your National Weather Service in Bismarck, North Dakota. Its purpose is to heighten awareness about safety for the coming severe weather season, whether it be summer or winter, and to relay information on any changes at the Bismarck NWS. Additionally, other educational and useful information will be provided as space allows. If you have any comments or suggestions contact the Bismarck NWS.

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Definitions- *Watch* means conditions are right in the atmosphere for severe weather to develop. Watch for sudden changes in the weather and be prepared to act quickly. Watches are issued for tornadoes, severe thunderstorms, and floods. They are usually valid for a long time (6 hours) and for a large area (half the state of North Dakota).

Warning means severe weather has been reported, or based on radar and other data, meteorologists at your National Weather Service believe it is occurring. Get to a safe shelter immediately if you are in the warned area. Warnings are issued for tornadoes, severe thunderstorms, and flash floods. They are usually issued for a short time (an hour or less) and for small areas (a county or smaller). Note that flash flood warnings may be issued for several hours and for a few counties.

Funnel Cloud is a rotating column of air not in contact with the ground.

Tornado is a violently rotating column of air extending from a thunderstorm to the ground. A visible funnel is not needed.

Severe Thunderstorm is a thunderstorm that produces 58 mph (or higher) wind and/or 3/4" (or larger) diameter hail. Note that a penny is 3/4" in diameter. Hail the size of a penny, or larger, meets the severe criteria.

Safety- During a tornado get to a basement shelter. The best place is in the center of the basement under a sturdy workbench or under the stairway. If you do not have a basement, go to the center of the lowest level of the home and into a closet or bathroom with no windows. Put as many walls between you and the outside as possible. Stay away from windows. In a school or other large building, go to the lowest level and into a bathroom or a hallway near the center of the building. Stay away from windows! Stay away from large wide open rooms like an auditorium or gymnasium!

Do not try to outrun a tornado in an automobile. Leave the vehicle, get into a ditch, and cover your head. If in an automobile in a city or populated area, do not try to outrun the tornado. Get to a sturdy building.

Mobile homes are not safe in tornadoes! Abandon them for a permanent structure! If you live in a mobile home be sure to have a plan for when tornado watches and warnings are issued.

Lightning is a killer! When thunderstorms are occurring...NO swimming...NO bath or shower...NO boating...NO golf...NO baseball or softball...NO lawn mowing. Stay away from railroad tracks, barbed wire fences, and hill tops. DO NOT stand under isolated trees. DO NOT be the tallest object. DO NOT use electrical appliances. STAY OFF the phone unless it is an emergency. If you can hear thunder, you are close enough to be struck by lightning. When thunderstorms are occurring GET INSIDE!

Floods and flash floods are the number one weather hazard. On average they kill more people in the United States than any other weather hazard. When thunderstorms are forecast DO NOT camp near canyons or dry creek beds. DO NOT drive or walk into flood waters. DO NOT allow children to play in a flooded street or near storm drains or culverts. Most flood deaths occur at night when it is harder to see the danger. If flood water starts collecting around you get to higher ground.

With respect to flooding...remember this...

Summer 2007 Outlook

At this point there is no indication that the summer of 2007 across North Dakota will be exceptionally warm or cool. No indication that it will be exceptionally wet or dry either. Overall, looking at the big picture, temperatures and precipitation should end up close to what is typically expected in the Flickertail State.

NOAA's (National Oceanic and Atmospheric Administration) CPC (Climate Prediction Center) indicates that we have transitioned away from El Nino and may enter a La Nina period over the next few months. La Nina is characterized by unusually cold ocean temperatures in the eastern equatorial Pacific. It is uncertain just how strong this La Nina episode will be, or how long it will last. Because of this transition and uncertainty, there is no strong indication one way or the other what the summer will bring. The best bet is to go with a "near normal" (in the big picture) forecast. This outlook is an average over the three month period called "meteorological summer", the months of June, July, and August.

Climate prediction has come a long way and there is a degree of skill involved in it. The forecast graphics below were issued by the CPC on April 19, and as with any forecast are subject to change. The forecast is actually updated on a monthly basis. Routine updates are issued on the third Thursday of each month and more frequent updates are issued as conditions warrant.

The graphics below simply indicate the chance, as a percentage, of being Above normal (A), Below normal (B), or if no strong indication one way or the other, of having Equal Chances (EC). The graphics indicate the confidence level in being above or below normal, but not how much above or below.

So, we are expecting an average summer in North Dakota. Climatology shows that an average North Dakota summer includes hot spells and cool ones, wet spells and dry ones, hail and high wind, some flash floods and on average, 21 tornadoes.

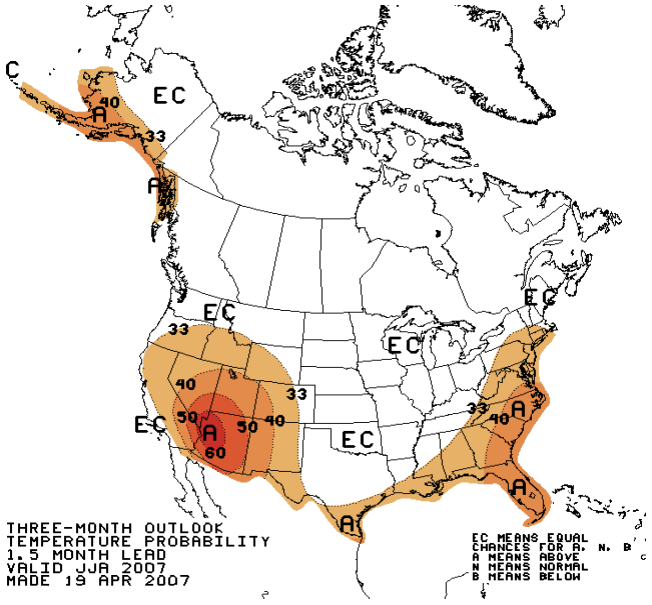
You can keep yourself updated on the latest "long term" forecasts by following this link to the CPC:

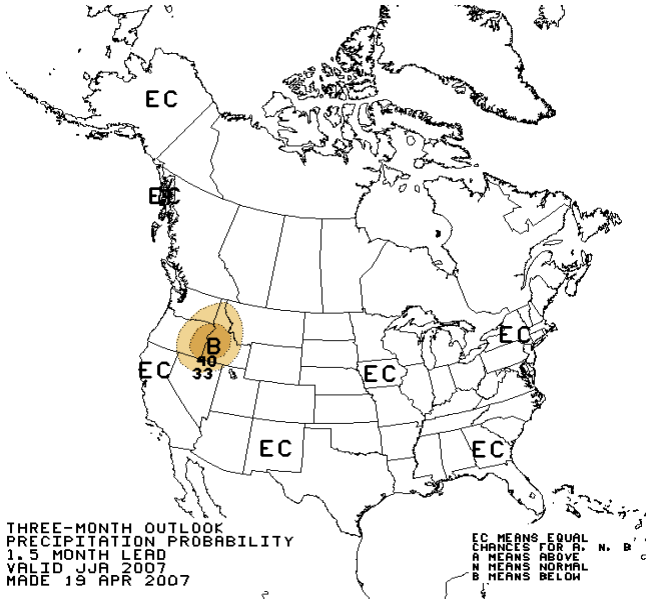
http://www.cpc.ncep.noaa.gov

Weather is the state or condition of the atmosphere.

Climate is weather over a long period of time.

TEMPERATURE (left) AND PRECIPITATION (right) OUTLOOKS FOR SUMMER (June-July-August) 2007





One Step Closer to Weather Radio Coverage in Southwest North Dakota

Recently, the USDA (United States Department of Agriculture) Rural Development announced an approved grant application for Consolidated Telecom of Dickinson, North Dakota, to install a 1,000 watt dual transmitter at Scranton, Bowman County. Consolidated Telecom has been awarded $54,767. This new transmitter will serve some of the most rural areas of North Dakota, the southwest.

Look (or listen) for the broadcast to begin this summer!

Summer Officially Begins

1:06 PM CDT Thursday, June 21.

Fall Officially Begins

4:51 AM CDT Sunday, Sept 23.

Hazcollect is Coming

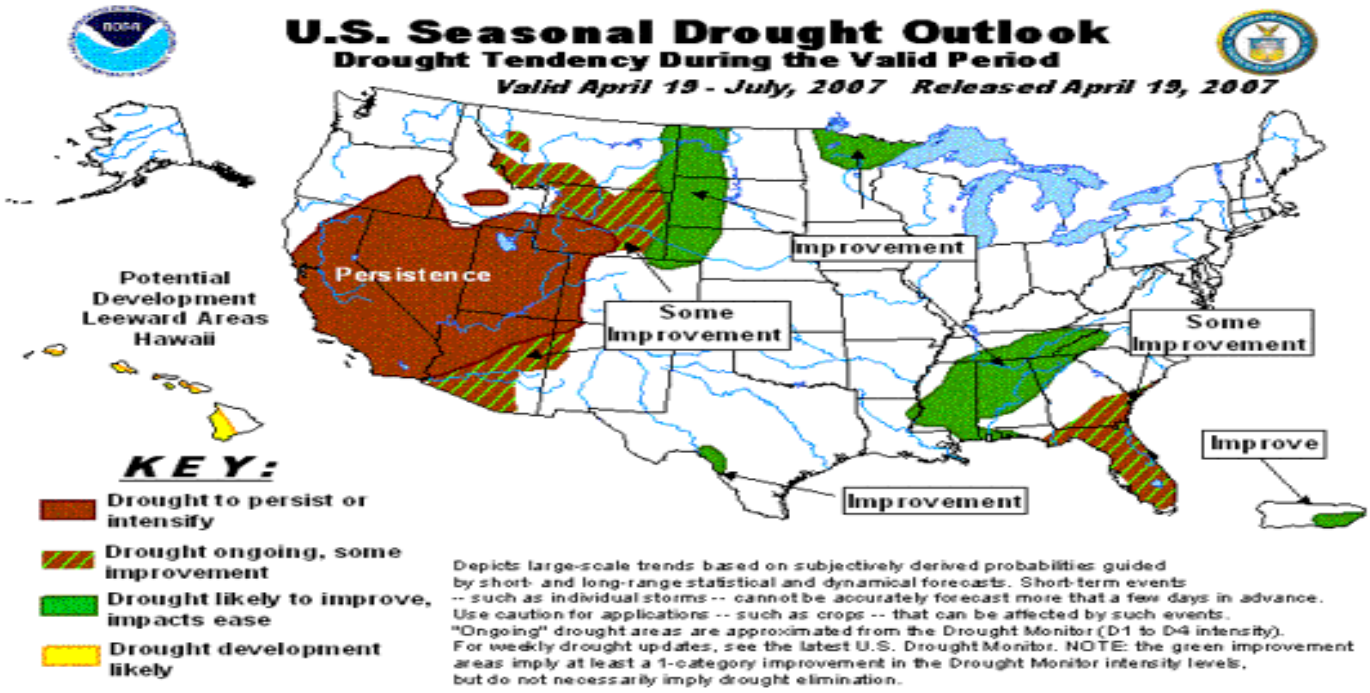
HazCollect will be a nationwide capability to streamline the current manual creation, authentication, and collection of all types of non-weather emergency messages in a quick and secure manner for subsequent alert, warning and notification purposes.

Hazcollect will utilize the All Hazards aspect of NOAA Weather Radio to get non-weather emergency message information to the media and the public.

Today the process by which emergency management officials get this information to the NWS is both cumbersome and time consuming. HazCollect will streamline the operation and save time.

Some Drought Relief

The United States seasonal drought outlook indicates improvement for western North Dakota during May, June, and July. The map below was issued April 19.



New Faces at Williston

Two new employees were recently hired at the Williston office of the National Weather Service.

David Cousins, photo below left, was born and raised in the Keystone State. He developed an interest in meteorology when a funnel cloud passed over his home in Mount Pleasant, Pennsylvania, when he was nine years old.

David earned his Bachelor of Science Degree in Meteorology from Millersville University of Pennsylvania in May, 2002. After graduation he worked for his uncle remodeling houses.

In the summer of 2003 David worked with the North Dakota Atmospheric Resource Board and was stationed in Stanley as a field meteorologist. He then moved to Cotulla, Texas, where he worked with the Southwest Texas Rain Enhancement Association.

In 2006 David earned his Masters of Science Degree in Atmospheric Science from the South Dakota School of Mines, where his research focused on wintertime frontal climatology of the Great Lakes.

Welcome back to North Dakota David!

David Cousins **Brian Ochs**

Brian Ochs, photo above right, was born in the Golden State's city of San Diego. He grew up near Los Angeles, California, and by age nine became interested in newspaper weather maps, comparing temperature and weather across the United States.

Brian earned his Bachelor of Science Degree in meteorology, and Masters of Arts Degree in climatology, from Arizona State University. His research focused on climate variability associated with the MJO (Madden-Julian Oscillation), and how it affected temperatures in the Desert Southwest.

Before joining NOAA's National Weather Service team, Brian worked for the Arizona Public Service Company in Phoenix, Arizona, for six years. While there he was an energy analyst and climate data consultant.

Welcome to North Dakota Brian!

Hettinger County and All Hazards

Recently, the USDA Rural Development announced an approved grant application for Consolidated Telecom of Dickinson, North Dakota, to install a 1,000 watt dual transmitter at Scranton, Bowman County, North Dakota. This new transmitter will serve four rural counties in North Dakota, including Hettinger County, and two South Dakota counties.

Ilene Hardmeyer, Hettinger County Emergency Manager, anticipating approval of the grant, came up with an exceptional idea to promote NOAA Weather Radio and the All Hazards aspects of it. Her idea was to use Homeland Security funding to purchase radios, sell them at a reduced price, then use that money to purchase more radios to sell.

In January, in support of Ilene's idea, the NWS conducted a presentation on Weather Radio and HazCollect to the Hettinger County Emergency Planning Committee. Following the presentation the board approved Ilene's request to utilize $6,000 in Homeland Security funding to purchase NOAA Weather Radios All Hazards.

Ilene bargain hunted for radios and ended up purchasing around 250 Midland WR-100 radios. She plans to sell the radios, one to a household, for $15, then take that money to purchase more radios.

Distribution will take place out of Hettinger County's mobile EOC during North Dakota's Severe Summer Weather Awareness Week, April 23-27, 2007. NOAA's National Weather Service Bismarck will have staff on hand at the distribution to promote the life saving potential of the radios, promote the USDA program that will bring coverage to southwest ND and northwest SD, and answer questions.

Way to go Ilene!

NOAA Weather Radio (All-Hazards)…

The closest you can come to someone knocking on your door and telling you that a tornado is on its way!

Designated Weather Watchers

Emergency Managers have filled the role of "Designated Weather Watcher" for a long time in their communities. In that role the Emergency Manager was weather watcher for a whole city or even a whole county. Now the NWS is encouraging this concept be developed down to the lowest level, right down to your family, business, or place of employment. The goal is to get those in charge of our schools, hospitals, businesses, nursing homes, mobile home parks, athletic parks, and other facilities, to make the Designated Weather Watcher a regular part of their operations. The Designated Weather Watcher is the person in the building or park, or at home, who pays close attention to the weather for everyone else. This person would have a NOAA Weather Radio (All Hazards) and internet access, or a television. The person listens and watches for potential weather hazards to the group. The person stays up to date on the latest weather information and knows when and how to initiate action to alert the group or family. Ideally the Designated Weather Watcher would be a person who has attended SKYWARN severe weather training and is knowledgeable about severe weather terms and the mission and operations of the National Weather Service.

NOAA's NWS Web Site

The National Weather Service has a web site for you to check out. For the Bismarck Office of the NWS, any of these will work

www.weather.gov/bis
www.weather.gov/BIS
www.weather.gov/bismarck
www.weather.gov/Bismarck

and you will end up at the NWS Bismarck web site.

From the NWS Bismarck web site you can link to every weather forecast office in the nation. Also, **www.weather.gov** will get you to the NWS headquarters page. The amount of weather data available on these web sites is tremendous. Take a look and browse around.

NOAA Weather Radio…
It isn't just for weather anymore…

We are "All-Hazards".

NOAA-The National Oceanic and Atmospheric Administration… parent organization of your **National Weather Service**.

U.S. Department of Commerce
National Oceanic and Atmospheric Administration

NOAA-National Weather Service
2301 University Dr Building 27
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