DAKOTA SKIES

NATIONAL WEATHER SERVICE
BISMARCK, NORTH DAKOTA

Inside this issue:

Weather-Ready Nation: Saving Lives and Livelihoods

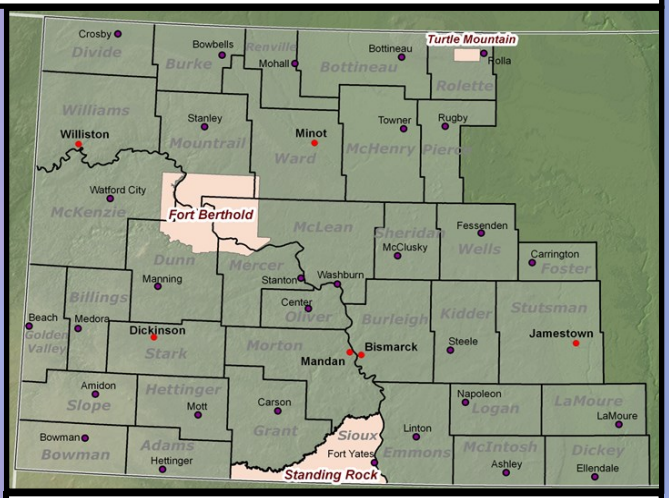
Welcome Message

by Adam Jones

Greetings! Thank you for stopping by *Dakota Skies*. This semiannual newsletter is produced each spring and fall by a team of employees at the National Weather Service (NWS) in Bismarck, ND.

In this edition you will find useful information to help you prepare for the upcoming **summer severe weather season**. Additionally, there are interesting articles about **SkyWarn, the summer climate outlook, weather myths, changes to the Storm Prediction Center Outlooks, staff spotlight, and social media.**

For comments, suggestions, or to report severe weather, please call (701) 250-4224.



NWS Bismarck County Warning Area (CWA). We issue watches, advisories, warnings and forecasts for 36 counties and three Tribal Nations in western and central North Dakota. The office is staffed 24 hours a day, seven days a week.

Test Tornado Drill: April 29, 2015

by Adam Jones

Wolf Point, MT (Source: Rustebakke and Rath)

The test tornado drill for the entire state of North Dakota will be held on **Wednesday, April 29th around 11:15am CDT**. A test tornado warning will be issued by the National Weather Service in Bismarck and Grand Forks. This test warning will alarm all NOAA Weather Radios and test the Emergency Alert System (EAS) and other communication systems. The level of participation in your community will be determined by your local officials, including whether or not the outdoor sirens will sound. Private companies and schools will also decide the level of participation for their respective facilities. **You are encouraged to use this drill to review your plans at home, work or school, and practice seeking shelter in the event of an actual tornado**. A tornado safety checklist from the American Red Cross can be found here: **http://www.redcross.org/images/MEDIA_CustomProductCatalog/m4340177_Tornado.pdf**

Severe Weather Myths

by Patrick Ayd

Myth: Low pressure associated with a tornado causes buildings to explode. Opening the windows will equalize the pressure, saving the building.

Fact: Opening the windows will have no effect. It is the violent winds and debris that cause most structural damage. Every second counts when preparing for a tornado, so it is more important for you to move to a safe area away from windows and away from exterior walls.

Myth: Go to the southwest corner of the building for safety from a tornado.

Fact: The safest place in a building is in a small, reinforced room below ground or on the lowest level. This is usually a bathroom or closet near the center of the building. Safer yet is a shelter specifically designed for tornado safety.

Myth: North Dakota does not get large tornadoes.

Fact: Nearly every county has been impacted by a significant tornado (EF2+). Several counties have even been impacted by catastrophic tornadoes (EF4+).

Myth: Rubber soled shoes or rubber tires on a vehicle will protect someone from a lightning strike.

Fact: Rubber soled shoes will not protect a person from lightning. If caught outdoors away from buildings, the safest place to be is a vehicle because its metal frame will guide the lightning around the occupant(s) and into the ground.

Myth: An approaching tornado will always be visible.

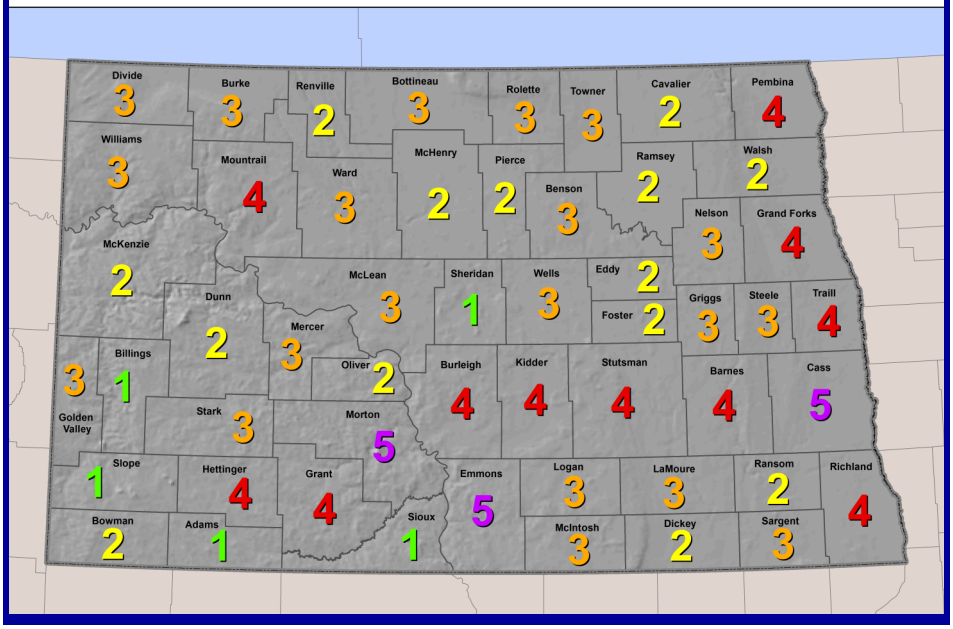
Fact: Most tornadoes have a visible funnel, but not always. Tornadoes can be hidden by trees and terrain, or may even be wrapped in rain! Also, a tornado does not have to have a visible funnel cloud on the ground to be a tornado. If debris are visible below the funnel, the tornado has touched down even though a funnel cloud is not visible all the way to the ground.

Myth: Larger vehicles are safe to drive through flood waters.

Fact: Two feet of rushing water can carry most vehicles away, including SUVs and pickups. Never drive across a water covered road. Turn around and don't drown!

"Even an EF0 tornado can be life threatening"

Highest Rated Tornado (F/EF) 1950-2014

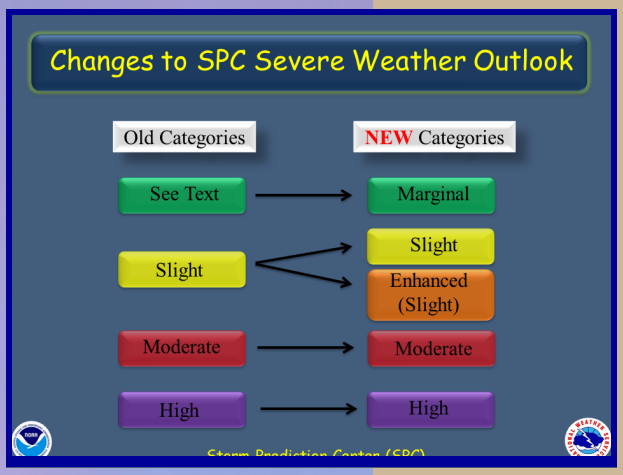


Changes to the Storm Prediction Center Convective Outlooks

by April Cooper

The Storm Prediction Center (SPC) is responsible for forecasting the risk of severe weather nationwide. They communicate this risk to the public via convective outlooks.

This spring SPC has implemented a new rating system for convective outlooks. The new system employs a five category approach (previously four) to denote the expected coverage and severity of thunderstorms. The two new categories are *marginal* and *enhanced*. Changes to the outlooks were carefully designed with input from in-depth social science research. The intent of revising the rating system is to better communicate risk and describe the likelihood of severe weather.



Understanding Severe Thunderstorm Risk Categories

THUNDERSTORMS (no label)	1 - MARGINAL (MRGL)	2 - SLIGHT (SLGT)	3 - ENHANCED (ENH)	4 - MODERATE (MDT)	5 - HIGH (HIGH)
No severe* thunderstorms expected	**Isolated severe thunderstorms possible**	**Scattered severe storms possible**	**Numerous severe storms possible**	**Widespread severe storms likely**	**Widespread severe storms expected**
Lightning/flooding threats exist with all thunderstorms	Limited in duration and/or coverage and/or intensity	Short-lived and/or not widespread, isolated intense storms possible	More persistent and/or widespread, a few intense	Long-lived, widespread and intense	Long-lived, very widespread and particularly intense
					
• *Winds to 40 mph* • *Small hail*	• *Winds 40-60 mph* • *Hail up to 1”* • *Low tornado risk*	• *One or two tornadoes* • *Reports of strong winds/wind damage* • *Hail ~1”, isolated 2”*	• *A few tornadoes* • *Several reports of wind damage* • *Damaging hail, 1 - 2”*	• *Strong tornadoes* • *Widespread wind damage* • *Destructive hail, 2” +*	• *Tornado outbreak* • *Derecho*

* NWS defines a severe thunderstorm as measured wind gusts to at least 58 mph, and/or hail to at least one inch in diameter, and/or a tornado. All thunderstorm categories imply lightning and the potential for flooding. Categories are also tied to the probability of a severe weather event within 25 miles of your location.

SKYWARN

by Adam Jones

SKYWARN is a program where the National Weather Service comes to your community and presents severe weather information. It's fun, educational, entertaining and **FREE!** Sessions last around two hours and pre-registration is not required.

The topics covered include, but are not limited to:

- Thunderstorm formation, structure, and strength
- Thunderstorm hazards like wind, hail, flash floods, tornadoes, and lightning
- Reporting severe weather to the NWS
- Safety Tips

After the class, participants can sign up to be an official SKYWARN storm spotter for the National Weather Service, and relay vital ground truth information about storms to warning forecasters.

Your commitment as a spotter:

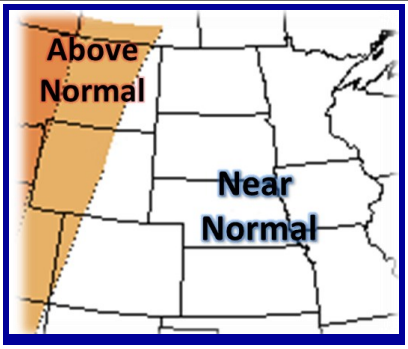
- Proactive calls to the NWS when you observe significant weather.
- Expect an occasional call from the NWS during reasonable hours.

More talks will be scheduled soon. An up-to-date training calendar can be found at www.weather.gov/bis/skytrain

Mandan	Morton	Monday, April 27, 6 PM CDT	Law Enforcement Center Classroom 205 1st Ave NW in Mandan.
Bismarck	Burleigh	Wednesday, April 29, 1:30 PM CDT	Bismarck Veterans Memorial Public Library 515 N 5th St in Bismarck.
Bowdon	Wells	Wednesday, April 29, 7 PM CDT	Community Center on Main St in Bowdon.
Hettinger	Adams	Thursday, April 30, 7 PM MDT	NDSU Research Center - 102 Highway 12 (north side) along 3rd Ave N in Hettinger.
Jamestown	Stutsman	Monday, May 4, 7 PM CDT	Law Enforcement Center 205 6th St SE in Jamestown.
Linton	Emmons/Logan	Tuesday, May 5, 6 PM CDT	Emmons County Courthouse just off Highway 83 at 100 4th St NW in Linton.
New Salem	Morton	Thursday, May 7, 7 PM CDT	New Salem Fire Department 110 N 3rd St in New Salem.
Medora	Billings	Tuesday, May 12, 2 PM MDT	Upper level meeting room of the County Courthouse in Medora.
Beach	Golden Valley	Tuesday, May 12, 7 PM MDT	Community Ambulance Building in Beach.
Bowbells	Burke	Tuesday, May 19, 7 PM CDT	City Hall 100 Main St in Bowbells.
Ft Yates	Standing Rock Nation Sioux County	Wednesday, May 20, 10 AM CDT	Standing Rock Game & Fish 9418 11th Ave in Ft Yates.
Wishek	McIntosh	Thursday, May 28, 7 PM CDT	Civic Center 1st Ave S in Wishek.

Summer Climate Outlook

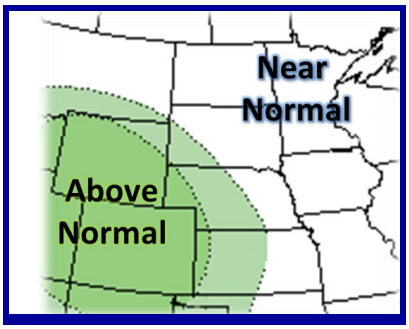
By Michael Matthews



This time last year the forecast called for a 50% chance of an El Niño by summer 2014. It was not until winter 2015 that El Niño finally developed. A weak El Niño is now in place and the forecast calls for a 70% chance that El Niño will last through summer 2015.

So what does all that mean for North Dakota summer weather? In short, not much. A weak El Niño does not have much affect on weather patterns over North Dakota.

Knowing this it is not surprising to see that the summer outlooks for June, July, and August call for equal chances for above, below, and near normal temperatures and precipitation. Although with most of western and central North Dakota at 50% to 80% of normal precipitation this year, receiving average precipitation this summer would be more than welcome.



June-August

Near Normal Range

	Precipitation (inches)	Temperature (°F)
Bismarck	6.53 to 8.65	68.3 to 69.3
Dickinson	5.98 to 8.69	66.9 to 67.8
Jamestown	7.13 to 9.32	67.4 to 68.6
Minot	6.97 to 8.40	66.8 to 68.5
Williston	5.23 to 7.34	67.4 to 68.9

Staff Spotlight: Jeff Schild

Jeff Schild, NWS Bismarck's newest Lead Forecaster, moved to Bismarck with his wife, Megan and daughter, Gracyn last summer. Jeff is happy to return to his home state as he was born and raised on a farm southwest of Harvey, North Dakota.

During his undergraduate career at the University of North Dakota, Jeff spent his summer breaks working for the North Dakota Atmospheric Resource Board on cloud seeding projects in Bowman. After he graduated from UND he joined Weather Mod Inc. and moved to Pampa, Texas and Woodward, Oklahoma to continue working on cloud seeding research. After returning to UND to complete his master's degree, Jeff joined the National Weather Service as a Meteorologist Intern at Rapid City where he was later promoted to General Forecaster. Jeff enjoys the variety of weather North Dakota provides, especially summer thunderstorms! Outside of work Jeff enjoys spending time snowmobiling, ice fishing, and working on projects around the house.

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BISMARCK, NORTH DAKOTA

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National Weather Service Mission Statement:

The National Weather Service (NWS) provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public, and the global community.

Brief National Weather Service History:

The National Weather Service has its beginnings in the early history of the United States. Weather has always been important to the citizenry of this country, and this was especially true during the 17th and 18th centuries. The beginning of the National Weather Service we know today started on February 9th, 1870, when President Ulysses S. Grant signed a joint resolution of Congress authorizing the Secretary of War to establish a national weather service or weather bureau as it was known back then.

Social Media at NWS Bismarck

By Adam Jones

The National Weather Service in Bismarck is on Facebook, Twitter, and YouTube. Whether you are a Facebook fan, Twitter follower, or YouTube subscriber; you can receive weather updates for
western and central North Dakota through either one (or all three) social media outlets.

"Like" us on Facebook by navigating to www.facebook.com/NWSBismarck and clicking the "Like" button.

If you prefer to **follow us on Twitter**, navigate to https://twitter.com/NWSBismarck and click the "Follow" button.

To **subscribe to our YouTube channel**, navigate to http://www.youtube.com/NWSBismarck and click the "Subscribe" button.

Our goal is to not only better communicate weather information and impacts, but to also be more interactive with you, the people we serve. We always welcome real-time weather reports via
Facebook comments or Tweets. We use your real-time field reports to gain a better understanding of the weather that is happening in your area. We integrate your reports into the forecasts with the goal of creating the best and most representative weather forecast for western and central North Dakota.

Together we can provide the most up-to-date and accurate weather information. Become a
National Weather Service Bismarck social media follower today!