High Plains Wind

(Weather Information News Data)

March 27, 2013
Volume 7 Issue 1

Inside This Issue

WFO Goodland 3/23/13

A Message from the Meteorologist-in-Charge

Impact Based Warnings

By Scott A. Mentzer

Last year forecasters from National Weather Service offices in eastern Kansas and Missouri strengthened messages used in tornado warnings and simplified the warning format to improve risk communication and public response. The change was an experiment to better understand how social science plays a role in people's understanding of severe weather warnings, and their willingness to seek proper shelter when warranted. The test proved successful enough to expand the project to all NWS offices in the central part of the country.

The NWS office in Goodland will participate in this project, called "Impact Based Warnings", beginning April 1, 2013. Forecasters will use technology, experience, and reports from storm spotters to tailor warning messages to individual storms by communicating expected hazards and impacts, as well as actions people should take to remain safe.

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Impact Based Warnings Improvements

1. Impact Based Warnings will improve communication of critical information.
2. Enhanced format will make it easier and quicker to identify the most valuable information.
3. Will enable you to prioritize warnings in your area of interest.
4. Provides different levels of potential impact within the same product.
5. A particular warning will highlight a storm that is particularly dangerous.
6. Allows users and vendors to develop apps and tools for the public and broadcast meteorologists to better communicate areas of increased risk.
7. Tags will enable the NWS to express a level of confidence of potential impacts.

The goals are to provide more information to the media and Emergency Managers, to facilitate improved public response and decision making; and to better meet societal needs in the most life-threatening weather events.

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Examples of Tags

Tornado Tags

TORNADO...RADAR INDICATED
Evidence on radar and near storm environment is supportive, but no confirmation.

TORNADO...OBSERVED
Tornado is confirmed by spotters, law enforcement, debris ball signature, etc.

Tornado Damage Threat Tag

TORNADO DAMAGE THREAT...CONSIDERABLE
When there is credible evidence that a tornado, capable of producing considerable damage, is imminent or ongoing.

TORNADO DAMAGE THREAT...CATASTROPHIC
When a severe threat to human life and catastrophic damage from a tornado is occurring, and will only be used when reliable sources confirm a violent tornado.

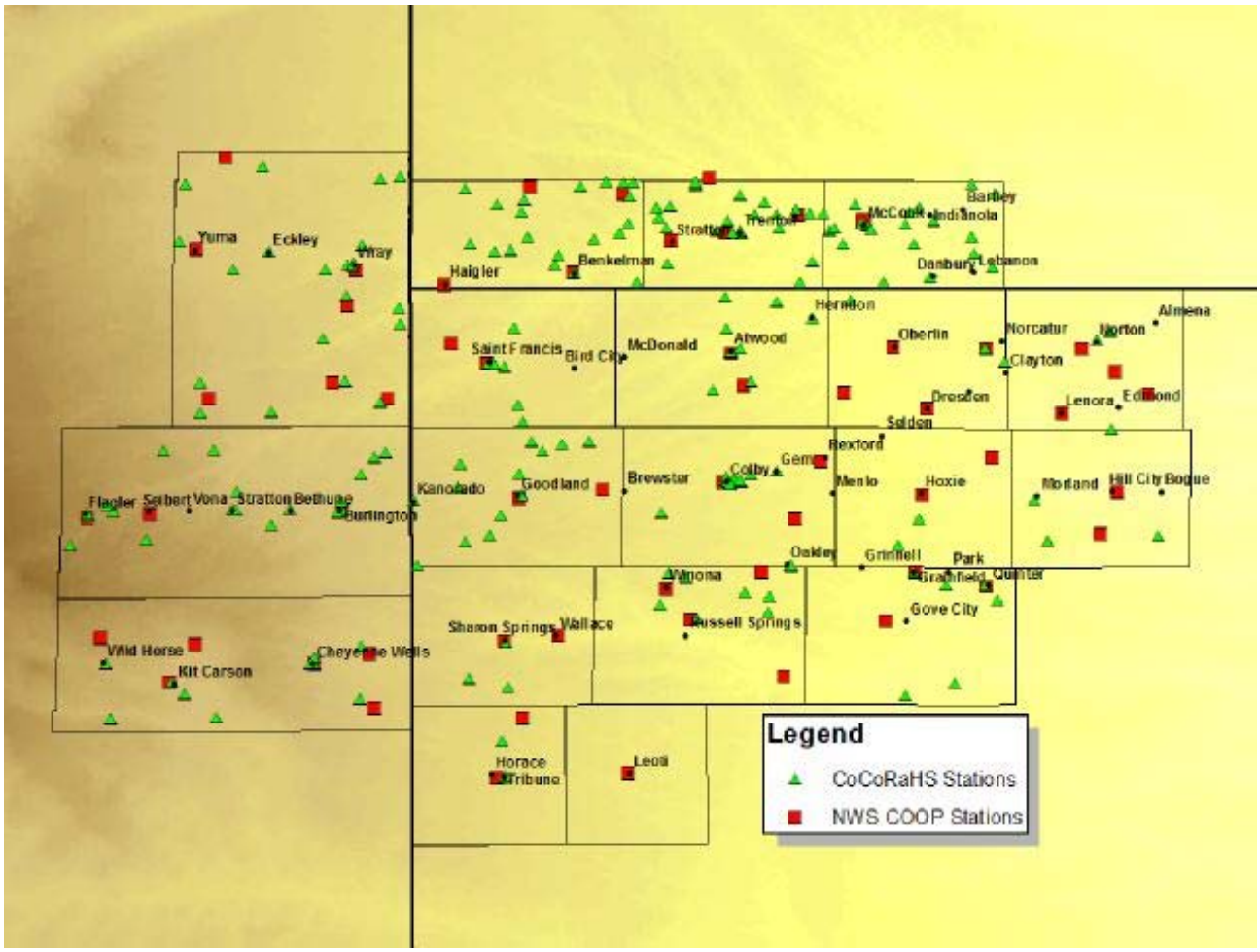
Tornado Tags for Severe Thunderstorm Warnings

TORNADO...POSSIBLE
A severe thunderstorm has some potential for producing a tornado although forecaster confidence is not high enough to issue a Tornado Warning.

CoCoRaHS Corner

By David Thede, Lead Forecaster

I am pleased to announce that as of March 1, 2013, CoCoRaHS (Community Collaborative Rain, Hail & Snow Network) is now available in Nebraska. Now everyone in our county warning area can join the CoCoRaHS team. Your precipitation observations will then start showing up on our daily county maps and will be shared with your friends, neighbors, scientists and others to see how daily precipitation has covered the state.



CoCoRaHS Reporting Stations in the Tri-State Area

There are approximately 195 active CoCoRaHS observers in northwest Kansas, southwest Nebraska and far eastern Colorado. In addition to these observers, 59 cooperative observers report daily maximum and minimum temperature, rainfall, snow fall and snow depth to the National Weather Service. As you can see, in the illustration above, we have quite a few areas without any observers and thus no data. This is especially true in Decatur, Norton, Sheridan, Graham, Greeley and Wichita counties in Kansas. Could you help fill the data voids in any of these counties? Data is also non-existent in southern Kit Carson county and northern Cheyenne county in Colorado.

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If you think this might be something you would enjoy doing, please review these short videos on how to correctly measure snowfall and snow water equivalent.

http://www.youtube.com/watch?v=x1PBc8jPh5o

http://www.youtube.com/watch?v=tfb3Os4Loa4

You can also learn more about the CoCoRaHS program at the website:

http://www.cocorahs.org/

Please contact me, David Thede, the Northwest Kansas, East Central Colorado and Southwest Nebraska CoCoRaHS Coordinator for the National Weather Service in Goodland at (785) 899-7119 or by email at david.thede@noaa.gov I will look forward to hearing from you!

Are you confused about Winter Watches, Warnings and Advisories?
If so please participate in our survey!

http://nws.weather.gov/haz_simp/

Clouds – What are they trying to say?

By Jesse Lundquist, Meteorologist

One of the best ways to see what the weather is doing, or will do, is to watch the clouds. If you know what to look for, clouds can give a heads up for a sudden weather change, not just an entertaining way to imagine different animal shapes with them. The following are some of the clouds that can be seen across the Tri-State area, along with a brief description of what sort of weather patterns to expect when these clouds are observed.

High clouds form around 20,000 feet or higher:

Cirrus generally signifies fair or pleasant weather. The cloud strands point in the direction the upper level winds are moving.

Cirrostratus signifies warmer air moving in at the upper levels of the atmosphere. They are usually thin enough for the sun or moon to shine through. If the cirrostratus thicken, are accompanied by lower clouds and declining surface pressure, a warm front and precipitation are likely to move in within the next 24 hours.

Mid clouds form between 6,500 and 20,000 feet:

Altostratus - appear gray or blue-gray but are never white. The sun may be dimly visible through them. The clouds may appear continuous with no distinct features. They are usually ahead of a warm front and wide spread precipitation.

Altocumulus often look like torn cotton balls due to their fibrous edges. Seeing these clouds on a warm, humid summer morning indicates thunderstorms are possible during the afternoon.

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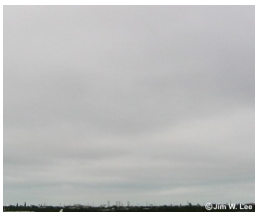
Low clouds form around 6,500ft and lower:



Stratus is uniform and gray in color. These clouds look like fog that is not quite reaching the ground, and may be accompanied by drizzle or light mist. If steady precipitation is falling the cloud is called a **nimbostratus**.

Cumulus has flat bottoms and rounded tops. The exact name of the cumulus depends on its vertical growth. **Fair weather cumulus** has very little vertical growth and is seen on fair weather days.

Cumulonimbus (thunderstorms) has a deep vertical extent, often becoming taller than high level clouds, and can produce heavy rain, hail and tornadoes.

SKYWARN

Missed spotter training this year? Try the virtual training available at the website below:

https://www.meted.ucar.edu/training_course.php?id=23

PING project invites citizens to help improve radar

By Joseph Moore, Meteorologist Intern

The NOAA National Severe Storms Laboratory (NSSL) performs research on severe weather, including flooding, tornadoes, lightning, and hail. While most of their research is done in partnership with other scientists, one of their newest projects invites citizens to get involved.

The Precipitation Identification Near the Ground (PING) project aims to collect observations of precipitation reaching the ground from the public in order to improve radar products. Specifically, the project will use the observations and radar data collected to help forecasters better analyze the radar data in determining what type of precipitation is reaching the ground.

Why is this important? Well, even in towns not too far away our radar, the lowest radar beam is still pretty high in the atmosphere, and precipitation at the elevation of the radar beam can be different than what reaches the ground. Near Colby, the radar beam is about 3,000 feet above the ground. At places like Norton and Hill City, the lowest beam is at around 11,000 feet above the ground. What looks like snow on our radar can melt and become rain between this height and the surface. What looks like rain could be freezing at the surface causing hazardous road conditions. While some automated weather stations can detect the precipitation reaching the ground, they are not perfect and usually only report every hour. These stations are also very sparsely located across the high plains, which makes determining the precipitation type at the surface difficult. With your help, we can fill in the space between automated stations and help the scientists at NSSL develop new techniques for radar precipitation identification.

Submitting precipitation reports to PING is quick and easy: Reports can be submitted through the PING website or through smartphone apps, available for Android and iOS (Apple) platforms. Reports can be submitted as often as every 5 minutes and are completely anonymous. While the primary objective of the project is to improve radar products to better estimate the type of precipitation reaching the ground, reports can also be viewed in real-time to aid meteorologists during mixed precipitation type events.

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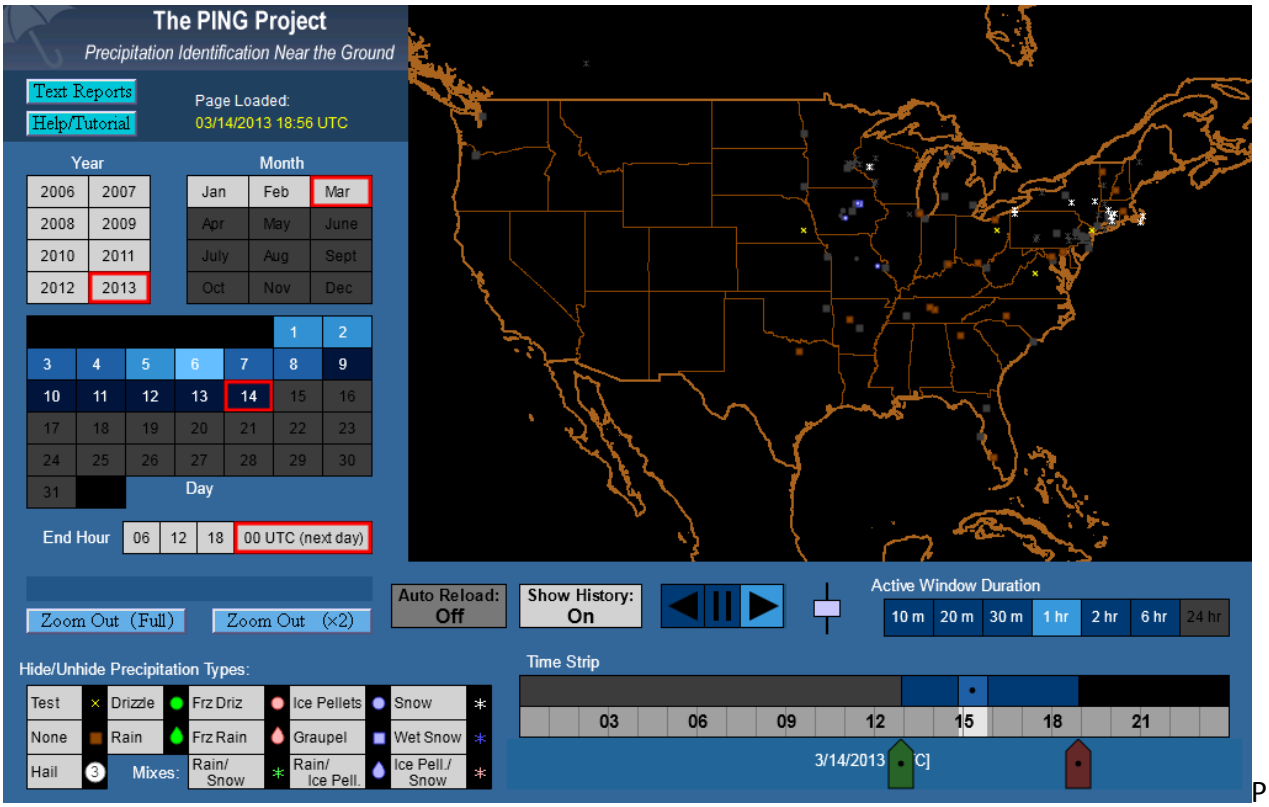


Check out the PING website: http://www.nssl.noaa.gov/projects/ping/

On Android or iPhone, search for "**mPING**" in the Google Play Store/App Store to download the free app. Just a reminder; while hail reports can be submitted through the PING project, please also pass along any hail reports of one inch or larger to our office via phone, Facebook, or Twitter at the addresses below.

NWS Goodland Via Facebook and Twitter

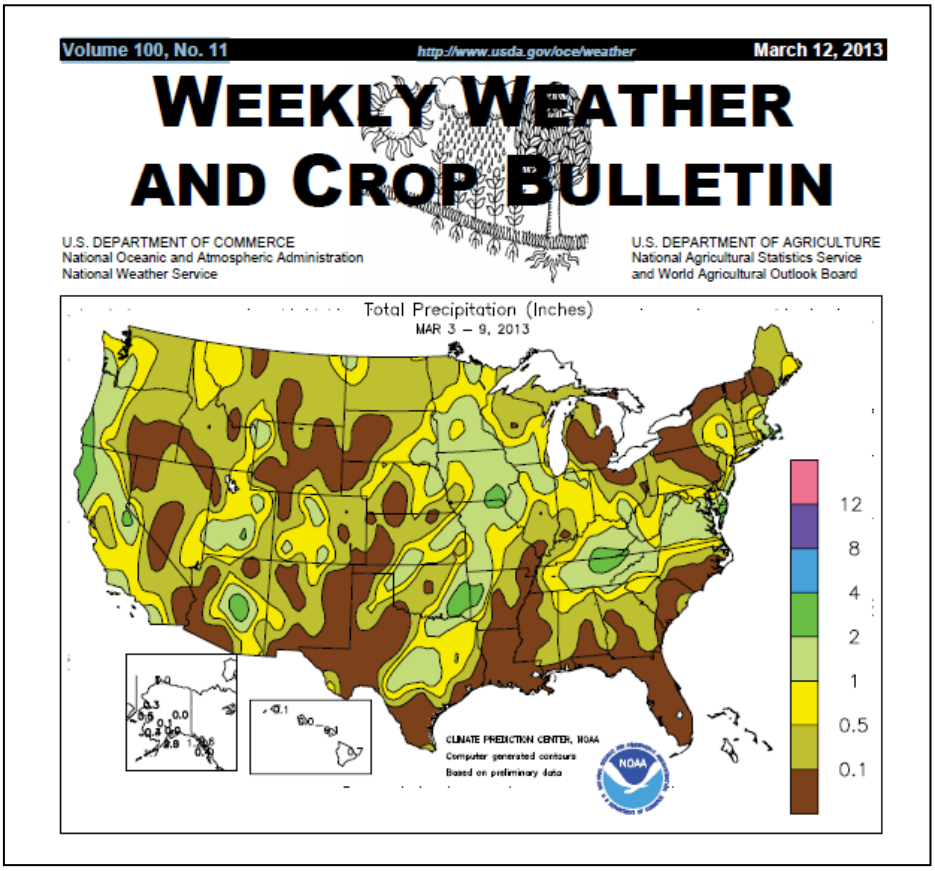
http://www.facebook.com/US.NationalWeatherService.Goodland.gov

https://twitter.com/NWSGoodland

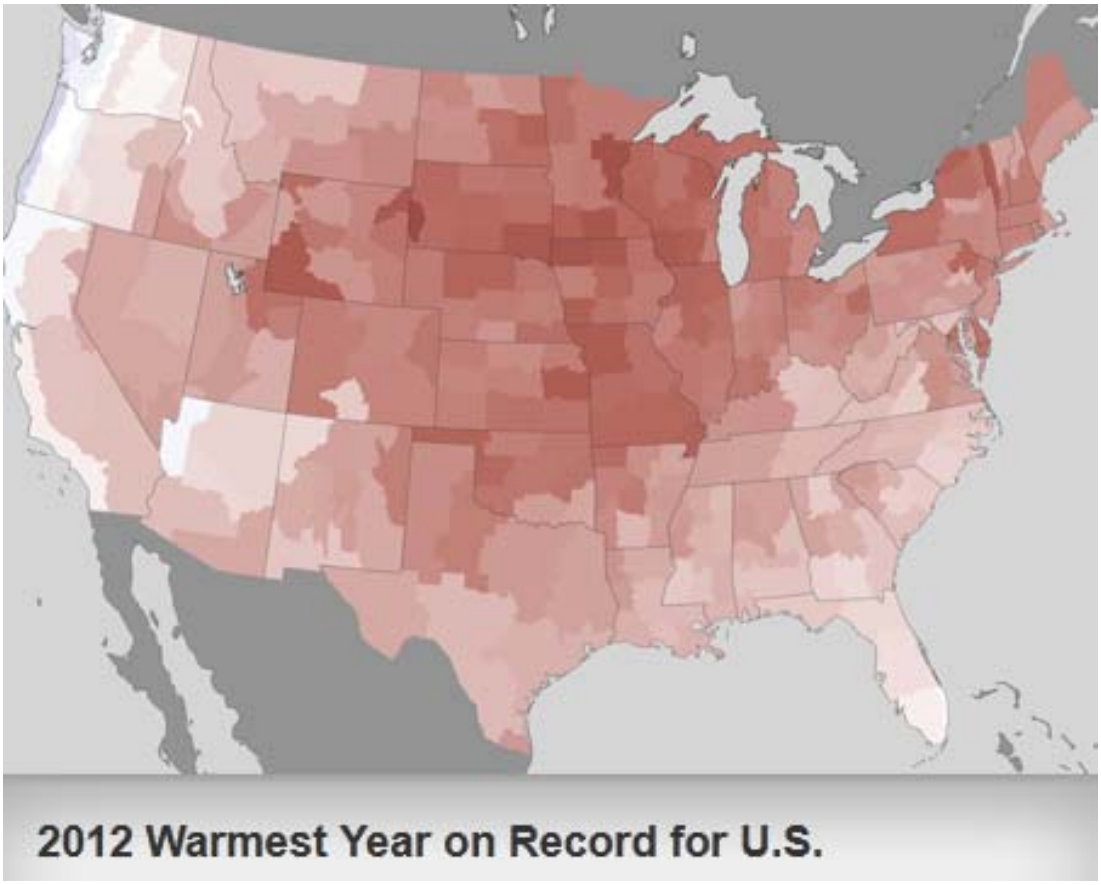
One more way to find us - load our page
using your phone's camera and a QR code reader.
Scan the code above and take the latest weather bulletins with you when you are on the go!

Cooperative Observer News

Rick Starks,pictured on the right in this photo, accepts a 15-year service award from Scott Mentzer, Meteorologist in Charge at Rick's home in Haigler, Nebraska.



Do you ever wonder where your cooperative observer reports go after they are processed by our office? Here is one of the sites that uses your data every day! To get your copy, click here: http://www.usda.gov/oce/weather/pubs/Weekly/Wwcb/wwcb.pdf



For more information click here: http://www.ncdc.noaa.gov/sotc/national/2012/13

Did you know?

The High Plains Regional Climate Center is holding webinars about the current drought conditions? You can learn more by checking out their webpage at:

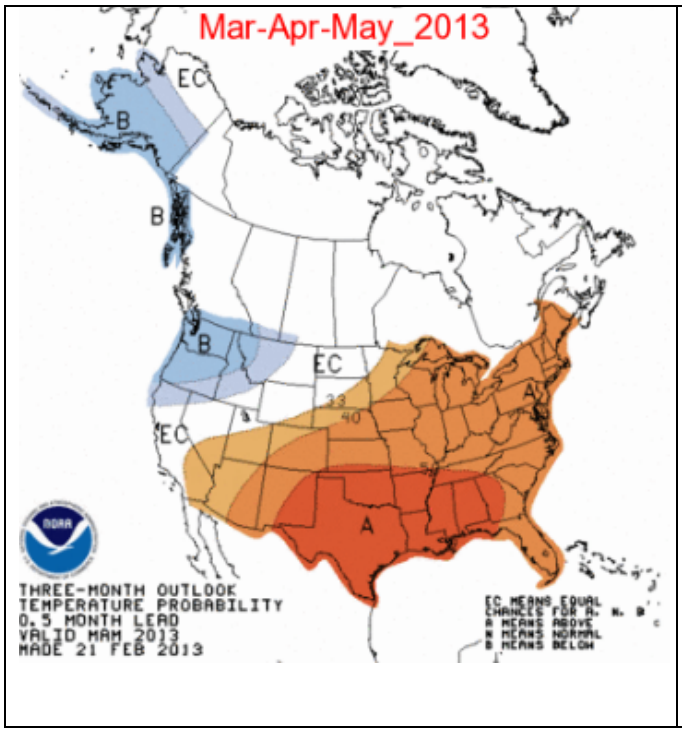
High Plains Regional Climate Center

http://www.hprcc.unl.edu/articles/index.php?id=390

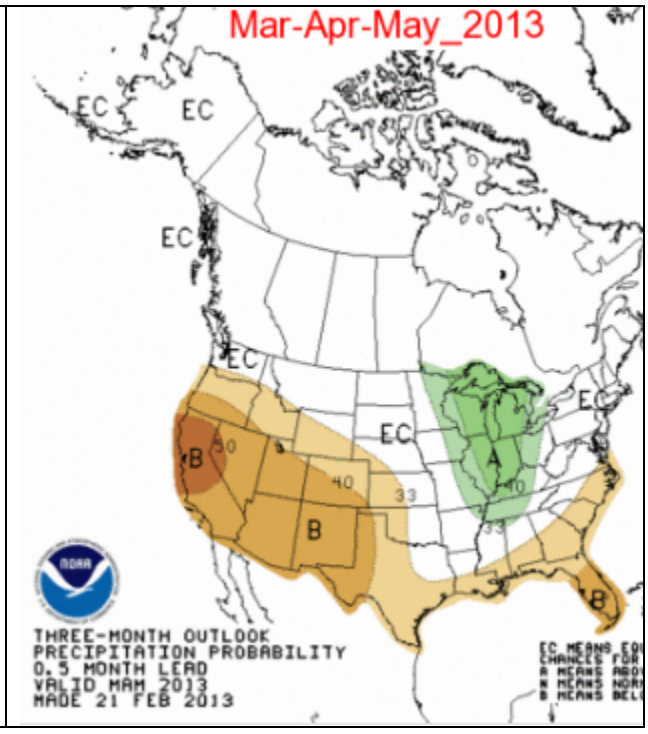
Climate Corner

Current Weather Information for Our Area

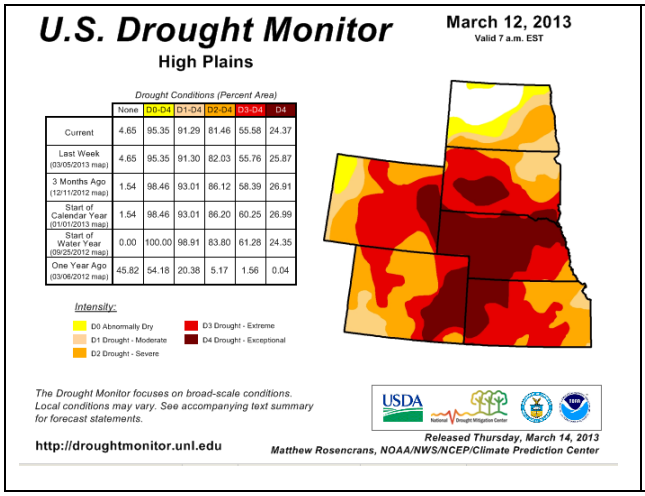
Latest Extended Outlooks



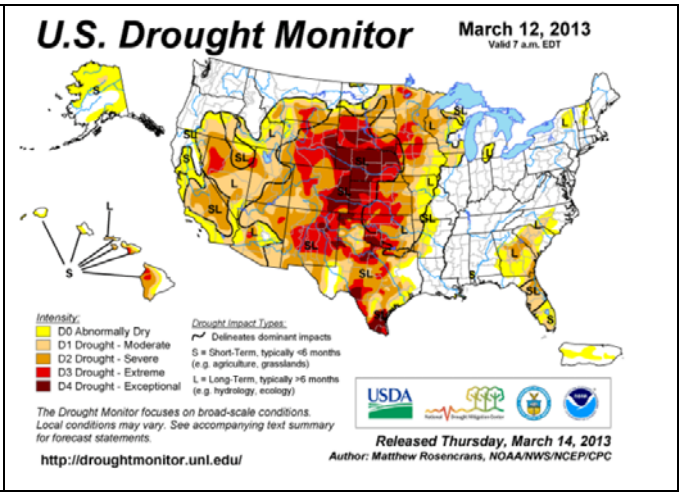
Precipitation Outlook (March – April 2013)



Temperature Outlook (March – April 2013)



Current Drought Monitor



Drought Outlook

Need more information? Check out the U.S. Drought Monitor website: http://droughtmonitor.unl.edu/

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920 Armory Road
Goodland, KS 67735

Phone:
785-899-7119

Fax:
785-899-3501

E-mail:
w-gld.webmaster@noaa.gov

Please don't forget, if you have pictures or video to share of any severe weather events that take place this year, please contact ***david.l.floyd@noaa.gov***

With your permission, your pictures and video will provide information and training materials for future storm spotters and meteorologists!

The National Weather Service 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. It is accomplished by providing warnings and forecasts of hazardous weather, including thunderstorms, flooding, hurricanes, tornadoes, winter weather, tsunamis, and climate events. The NWS is the sole United States OFFICIAL voice for issuing warnings during life-threatening weather situations.