



Chicagoland Skywarn

Issue 2, Volume 2

April 2010

Special Interest Articles:

- Skywarn @ Fermilab
- Wind Direction Definition
- Myths or Misconceptions about Tornadoes
- Vortex 2

Individual Highlights:

New N. Cook Skywarn Net	2
Spotter Do's and Don't's	4
Spotter Training	
Schedule	5
30-day Temp./Precip.	
Outlook	6

Skywarn to be Presented at Fermilab Tornado Seminar

By Greg Perkins, KC9GHZ

Thanks to Don Whitney (K9DRW), the Emergency Coordinator for Lake County RACES/ARES, both amateur radio and SKYWARN will be represented at the Fermilab/WGN-TV Tornado and Severe Weather Seminar for the second year in a row. Hosted by Tom Skilling, the Tornado and Severe Weather Seminar has been held annually since 1981. Hosted for the first year at Geneva High School, and subsequently in the Ramsey Auditorium at Fermilab, the seminar has grown into one of the

largest public severe weather seminars in the country.

Starting in 2009, SKYWARN and RACES/ARES organizations have been represented at the seminar with a shared booth located in a prime location. Groups from throughout the Chicagoland area staff the booth for the entire day, informing the public about the services provided by SKYWARN spotters and amateur radio communications groups.

This year the seminar will be held on April 10th, with

two sessions at noon and 6:00 PM. If you plan on attending the seminar, be sure to arrive more than an hour early in order to receive seating (attendance regularly numbers over one thousand per session). For further information on attending the 2010 Fermilab/WGN-TV Tornado and Severe Weather Seminar, visit <http://asktom.org/>. If you would like to join us at the SKYWARN and Amateur Radio booth to represent your local organization, please contact Greg Perkins at kc9ghz@lakecountyskywarn.org.

Wind Direction: "Blowing to" or "Coming from"

By Craig Dieckman, KC9HWK

Is a "northeast wind" ***blowing to*** the northeast or ***coming from*** the northeast?

"Wind direction is the direction where the wind is coming "FROM" and is based on an 8-point compass (NE, E, SE, etc.)" Credit: NWS San Francisco Bay Area/Monterey <http://www.wrh.noaa.gov/mtr/glossary.php>

WIND DIRECTION

"The direction from which the [wind](#) is blowing. For example, an easterly wind is blowing from the east, not toward the east. It is reported with reference to true north, or 360 degrees on the compass, and expressed to the nearest 10 degrees, or to one of the 16 points of the compass (N, NE, WNW, etc.)."

Credit: The Weather Channel <http://www.weather.com/glossary/w.html>

A New Northern Cook County Skywarn Reporting Net Begins this Spring

By Mike Swiatkowski, AA9VI

A new Skywarn severe weather reporting net will begin this spring on the North Shore Radio Club's 442.725+ (PL 114.8) repeater and NORA's 147.09+ (PL 107.2) repeater. This net is a joint effort by 10 members of the North Shore Radio Club, NORA, and Palatine ARES. The NORA repeater will be linked to the primary NSRC via echolink or RF.

The new team will activate the net when NWS Chicago issues a severe thunderstorm warning, flash flood warning, or tornado warning for Northern Cook County. The net controllers from this net will relay all severe reports to the FISHFAR liaison system where the NWS is listening.

Net control operators will also be using NWS chat which allows them to be connected to the NWS and local media via an instant messaging client on the computer. In addition, net control members will be

coordinating handoff of net control duties and emulating the DuPage Co. net admin duties behind the scenes using instant messenger.

Spotters may report to a new vanity callsign for net control, WX9NC. This net will focus on the northern half of the county from I-290, the Eisenhower Expy. north to the Lake Co. line. However, spotters may report severe weather from anywhere in the listening area of the repeaters.

This is not a check-in and leave net. Please only check in if you have severe weather to report, questions about the incoming storm, or you have emergency traffic. We don't want to hear "I'm on my way to Woodfield Mall and I'll be monitoring," "KD9ZZZ monitoring," or "The sewer at Dundee and Skokie Blvd. is clogged and there is 2" of water on the road."

If you are biking, boating, out golfing, your kids are out at a baseball game, or something like that and you are concerned about

the storm, you are welcome to call net control and find out more about the storm. Our goal is to encourage participation in the net but discourage less than useful reports. When in doubt, think "How will my report help the National Weather Service predict severe weather or understand the impacts of the storm?"

I would like to thank all of our net control members for volunteering; Craig Dieckman, KC9HWK, for his IT support and for facilitating networking between our sister organizations Lake Co. ARES and DuPage Co. Skywarn. We hope to emulate the fine work they have done throughout the years. Even our standard operating procedure is a compilation of input from these two clubs.

I would also like to thank Marv Michnik, N9SXS, for his work in developing the synergy we have between our clubs. This teamwork is a great example of how we can all make something better when we combine our resources into one effort.



Northern Cook County Skywarn

---WX9NC---

*442.725+ (PL 114.8 primary)
147.09 (PL 107.2, secondary
and linked to primary)*

BEGINS THIS SPRING!

Great News!

We now have a new place on the web. Easier to remember, Faster to find, and now with a community calendar of Skywarn events!

ChicagolandSkywarn.org

Tornados, Myth or Misconception? ..."Some towns are 'protected'"

By George Geosalitis, NB9R

Various Native American tribes perceived tornadoes in different ways. Some saw them as a cleansing agent, sweeping away the ragged and negative things of life. Others saw them as a form of revenge for dishonoring the Great Spirit. Today, only the myths about the protection of towns by rivers and hills linger in modern American culture.

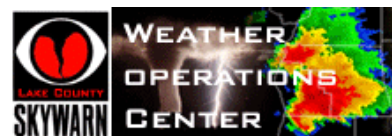
The Osage Indians, native to Kansas, Oklahoma, and Missouri passed on tornado legends to the early settlers. One such legend has it that tornadoes will not strike between two rivers, near the point where the rivers join. In the past 150 years, this idea may have given a false sense of security to some people who thereby failed to take shelter. They may not have lived to help debunk the myth. One by one, the myths that particular towns are protected have fallen by the wayside.

The idea that one's town is "protected" is a combination of wishful thinking, short memory, the rarity of tornadoes and a distorted sense of "here-and-there." Proof of protection has been offered by a very simple statement of fact. The town has never been hit by a tornado, but 10 tornadoes have touched down "outside" of town in the past 30 years. The occurrence information may be fact, but the conclusion that the town must be "protected" does not logically follow.

That logic disregards some very basic ideas. It ignores the likely possibility that rivers, ridges, and valleys have little or no effect on mature tornadoes. Tornadoes have passed seemingly unaffected over mountain ridges 3,000 feet high. Dozens have crossed the Mississippi River, from Minnesota to Louisiana. Both sides of the river, at the confluence of the Mississippi and Missouri Rivers, near St. Louis, have seen devastating tornadoes.

Topography may have some influence, but protection is not one of them. Weak tornadoes may damage hilltops. But well-formed, mature tornadoes may actually stretch themselves into valleys and intensify. During this vortex stretching, the funnel diameter may shrink and the tornado will spin even more rapidly. This is hardly what one would call protection for buildings in a valley.

The belief that tornadoes "don't hit here," but always seem to "hit north of town" or "south of the river," ignores some very simple mathematics. "Here" may be a small town with an area of one square mile. Just "outside of town" or "there" or "to the north" may be anywhere within visual sighting from the water tower, perhaps 10 miles in all directions. Therefore, if the town has an area of one square mile, then "outside of town" has an area of over 300 square miles. A tornado touchdown is 300 times more likely "outside" of town than in-town. The "protection" of the town does not come from hills, or a mound or the joining of two rivers. Tornado protection comes from the same source as our protection from falling comets or other heavenly visitors; that afforded by the laws of probability and the very low probability of rare events such as tornadoes.



Lake Co. Skywarn

www.lakecountyskywarn.org

Evanston Weather Spotters Organize

By Marilyn Gardner, W9LUO

Weather-spotter trained hams and CERT (Community Emergency Response Team) personnel met with Evanston's Emergency Management personnel on February 9 to discuss communication in times of severe weather warnings. It was decided that ham radio, GMRS and cell phones will all be used, with coordination through the Evanston Emergency Operations Center, which has both VHF/UHF ham capability and GMRS capability as well as telephone and other communication modes. This will provide the largest volunteer resource base for the weather spotters.

Teams will be deployed to protected locations in case of projected severe weather in Evanston. Priorities will be determined by the Office of Emergency Preparedness and volunteers will be assigned to the highest priority locations first, with other areas being covered if there are enough volunteers.

The City of Evanston is a Storm Ready community and is expanding its capabilities with the use of volunteers, including hams who are trained weather spotters

Spotter Do's and Don'ts

From NWS Milwaukee website

Do...attend spotter classes as much as possible.

Do...surf the web for additional information on spotting, severe weather, etc. (including Storm Prediction Center)

Do...have a watch, pencil, note pad, cell phone, and colored Spotter Quick Reference Guide with you when spotting

Do...make an effort to provide an accurate report - the time, location, condition (what you experienced/saw), and location

Do...reference your severe weather report location to the cultural/political center of the nearest city/village, to the nearest 1/10 mile and one of the 16 compass points (stationary spotters)...such as...1.5 NNE Madison

Do...provide in your report what direction you are looking at while viewing a rotating wall cloud, funnel cloud, or tornado, since you can't accurately determine, in the heat of the battle, how far away the wall cloud/funnel cloud/tornado is from your position

Do...spot with a partner, especially if you are mobile - two heads are better than one in this business!

Do...place the safety of you and your family first, your report is second priority

Do...utilize communication channels that have been set up for you or your group, and follow proper format/procedures

Do...make sure the National Weather Service receives your report via 911, or our 800 number, or ham frequencies, or E-Spotter

Do...be willing to freely share some of your severe weather pictures with the NWS for educational purposes, on-line stories (it's in the public domain)

Don't...assume you know everything there is to know about spotting - keep an open mind - you'll learn something new every year

Don't...make it difficult for emergency response people (emergency management, law enforcement, fire fighters, Red Cross, etc.) to do their job - don't get in the way unless you are specifically asked to help

Don't...just take pictures and video of a wall cloud or tornado and forget to relay your spotter report

Don't...look down at or ridicule another spotter for making a mistake - you may make the next mistake - we all have - no one is perfect

Don't...get upset at the National Weather Service if you don't see your severe weather report appear on-line as a Local Storm Report (LSR) or in a Public Information Statement (PNS), or in some "Top News of the Day" article on the NWS's web page - we get hundreds of reports from the 20 counties we service.

Don't...assume that you have a tornado just because you see something that looks like a funnel cloud - you must see some indication of ground-based, rotational effects (rotating debris/dirt) underneath or very close to the funnel cloud in order to classify it as a tornado - and there may be very little of any funnel cloud

Don't...get caught up in the game of trying to be the first person to call-in a tornado report - spotting is a game of being 100% correct...it's not a game of being the first.

Don't...call-in or relay a report if you're not sure what you're looking at - you must be 100% sure of what you're looking at - accuracy is the highest priority, after your safety - We'd rather have no report rather than a false report.

A Few More Opportunities for Spotter Training

From NWS Chicago's Website

April, 2010 - Upcoming

Day	City, State	Time	Location
01	Morocco, IN (Newton County)	7:00pm CDT	Newton County Government Center, 4117 S. 240 W (this is west of the intersection of US 41 and State Road 114) ***Please note the location has been changed for this class***
	<i>Contact Information:</i> 219-285-0833		
08	Fowler, IN (Benton County)	6:00pm CDT	Fowler Theater, 111 E. 5th St. ***Please note this class is 700 PM Eastern Time/600 PM Central Time***
	<i>Contact Information:</i> 765-884-6000		
12	Calumet City, IL (Cook County)	6:30pm CDT	Calumet City Library, 660 Manistee St.
	<i>Contact Information:</i> 312-603-8180		
14	Evanston, IL (Cook County)	7:00pm CDT	Lorraine H. Morton Civic Center, Parasol Room, 4th Floor, 2100 Ridge Ave.
	<i>Contact Information:</i> 312-603-8180		
21	Paxton, IL (Ford County)	7:00pm CDT	Paxton ERS, 134 West State St.
22	Rensselaer, IN (Jasper County)	6:30pm CDT	Jasper County Sheriff's Office, 2171 N. McKinley
	<i>Contact Information:</i> 219-866-1352		
26	Clarendon Hills, IL (DuPage County)	7:00pm CDT	Church of the Holy Nativity, 55th and Richmond
	<i>Contact Information:</i> DuPage Radio Club 630-985-0527		
28	Wauconda, IL (Lake County)	3:30pm CDT	Wauconda High School, 555 N. Main St.
	<i>Contact Information:</i> 847-416-7504		
28	Wauconda, IL (Lake County)	7:00pm CDT	Wauconda High School, 555 North Main St.
	<i>Contact Information:</i> 847-416-7504		

And this opportunity for Advanced Spotter Training near Kenosha from NWS Milwaukee-Sullivan:

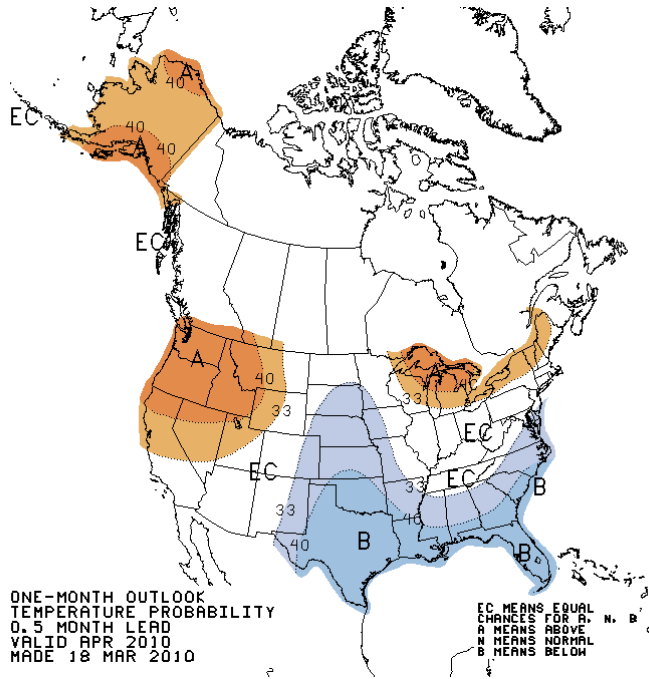
22	Near Bristol, WI (Kenosha County)	6:30pm CDT	Kenosha County Center at intersection of Hwy 50 & 45, 630-830pm, (Advanced)
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This month's featured links

Skywarn Online: www.skywarnonline.com
Milwaukee Area Skywarn Assn.: mke-skywarn.org
Nexlab: weather.cod.edu

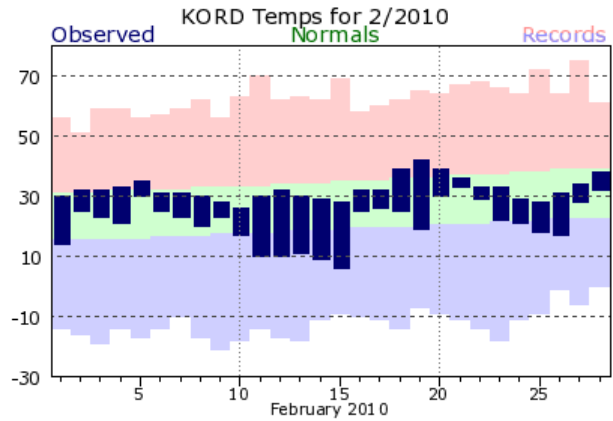
30-day Temperature and Precipitation Outlook

From NWS Climate Prediction Center (left maps)

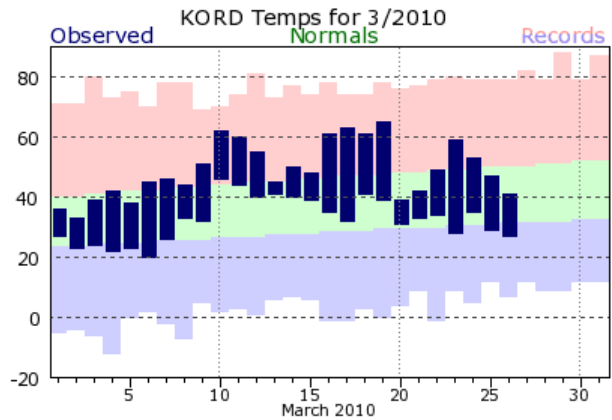
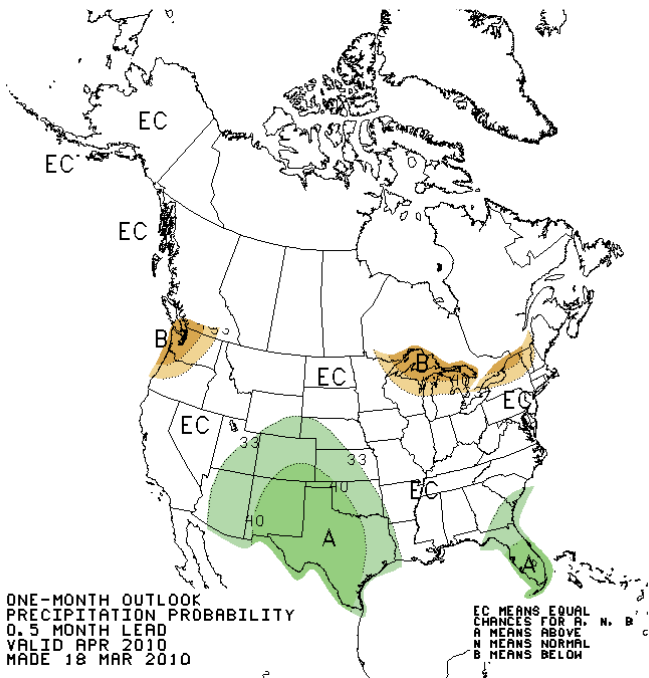


Feb '10 & Mar '10 Temps

From NWS Chicago Website



The DuPage Amateur Radio Club has a wealth of information on its site: skywarn.w9dup.org



Chicagoland Skywarn

INQUIRIES/SUGGESTIONS

aa9vi@arrl.net**Join our Private Yahoo list
(requires free membership)**

Sign up at:

<http://ChicagolandSkywarn.org>**Skywarn Reporting Repeaters**

Chicago: 442.725+ PL 114.8
 Downers Grove: 145.43- PL 107.2
 Frankfort: 444.55+ PL 114.8
 Gilberts: 146.925- PL 100.0
 Glenview: 147.09+ (PL 107.2)*
 Grant Park: 441.3+ PL 114.8
 Homewood: 442.375+ PL 114.8
 Kankakee: 146.94- PL 107.2
 Libertyville: 147.18+ PL 127.3
 Woodstock: 146.835- PL 91.5
 Malta: 146.73- PL 100.0
 Marseilles: 146.745- PL 114.8
 Merrillville: 146.7- PL 82.5
 Morris: 147.27+ PL 107.2
 Rockford: 147.255 PL 114.8
 St. Charles: 145.47 PL 103.5
 Valparaiso: 147.105+ PL 131.8
 Yorkville: 147.375+ PL 103.5

S.E. Wisconsin Skywarn
 145.13- MHz PL 127.3 Hz

APRS Packet WX: 144.39 MHz
 Winlink Packet: 145.61 MHz

NWS Chicago Website:weather.gov/chicago**Vortex 2**

By Al Fisher, Meteorologist, Naperville EMA

VORTEX2 is by far the largest and most ambitious effort ever made to understand tornadoes, with over 100 scientists and over 40 science and support vehicles participating in this unique, fully nomadic, field program during its second and last field season, May/June 2010.

VORTEX2 uses an unprecedented fleet of cutting edge instruments to literally surround tornadoes and the super cell thunderstorms that form them. An armada of 10 mobile radars, including the Doppler On Wheels (DOW) from the Center for Severe Weather Research (CSWR), SMART-Radars from the University of Oklahoma, the NOXP radar from the National Severe Storms Laboratory (NSSL), radars from the University of Massachusetts, the Office of Naval Research and Texas Tech University (TTU), 12 mobile mesonet instrumented vehicles from NSSL and CSWR, 38 deployable instruments including Sticknets (TTU), Tornado-Pods (CSWR), 4 disdrometers (University of Colorado (CU)), weather balloon launching vans (NSSL, NCAR and SUNY-Oswego), unmanned aircraft (CU), damage survey teams (CSWR, Lyndon State College, NCAR) and photogrammetry teams (Lyndon State University, CSWR and NCAR) as well as other instrumentation.

VORTEX 2 from last year only caught 1 tornado. The link below will take you to a 5 part video of the complete evolution and death of this tornado. You'll also want to watch the short clip (3.5 minutes) of Reed Timmer (and crew).getting hit by some portion of the same tornado. This last clip was taken from the footage shot for the last broadcast of the Discovery Channel "Storm Chasers" series. If you're, at all, interested in tornado formation theory, you'll want to watch all 5 parts. Each part is about 10 minutes long. There's a continuous running commentary in the videos which provides a very detailed explanation of tornado theory, storm motion and tornado motion. The entire video series shows the extreme complexity of the entire process, unknown factors, purpose of Vortex2 and the difficulty of the warning process.

<http://www.youtube.com/watch?v=aXsSjJRHc48>Vortex2: www.vortex2.org/homeNational Severe Storms Laboratory Vortex2: www.nssl.noaa.gov/vortex2**CHICAGOLAND SKYWARN****A BRIDGE BETWEEN METRO
CHICAGO SKYWARN
AGENCIES**

What's new in your group? Do you have any announcements related to Skywarn, or EMCOMM activities? Please let us know. We'd be happy to publicize it! We're also looking for anyone to help us by writing a short article just like Greg, Craig, George have done. Local content makes this newsletter better!

Email Mike at aa9vi@arrl.net