



# Chicagoland Skywarn

Issue 5, Volume 1

December 2009

## Special Interest Articles:

- Skywarn Recognition Day
- El Niño is Back. What does it mean for us?
- Global Warming

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## Skywarn Recognition Day

From NWS SFO Website  
2009 Skywarn Recognition Day begins Saturday, December 5<sup>th</sup> at 0000 UTC (Friday evening local time) and ends at 0000 Sunday (Saturday evening local time).

The NWS and ARRL began Skywarn recognition Day in 1999 to recognize the valuable weather reporting and severe weather volunteer

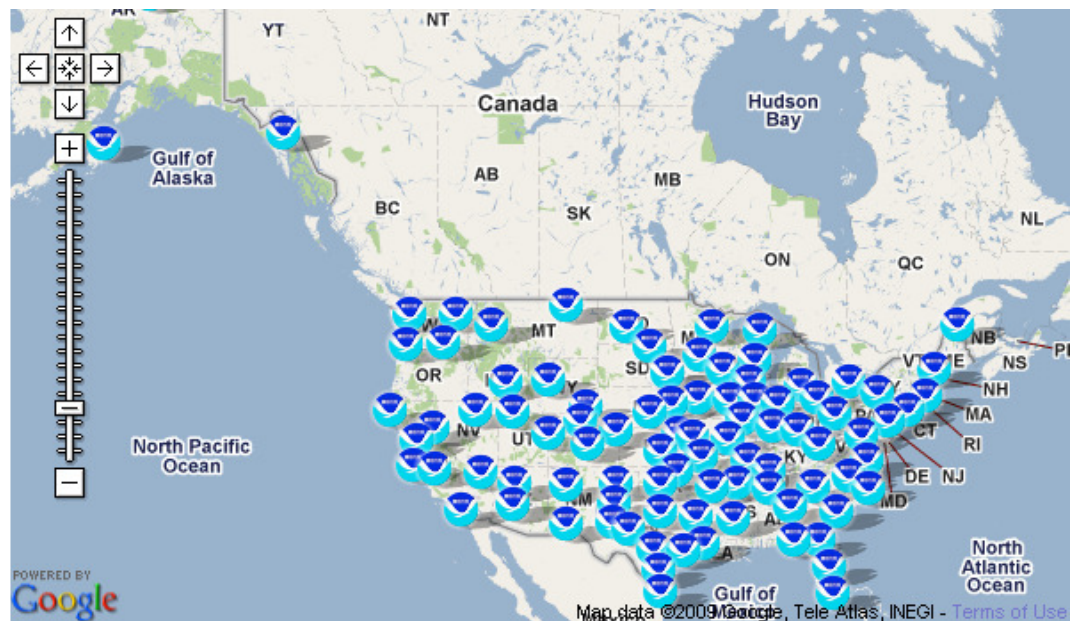
activities provided by ham radio operators.

NWS offices across the country, shown below, will activate CW, SSB, RTTY, PSK31, RTTY, echolink, IRLP, and FM stations on HF, VHF, and UHF in this event.

QSL certificates are available for contacts with many stations of these stations. Send a list of your contacts with a SASE

size 8 1/2" x 11" to  
SKYWARN Recognition Day  
920 Armory Road  
Goodland, KS 67735

Learn more about the event at:  
<http://www.wrh.noaa.gov/mtr/hamradio/>



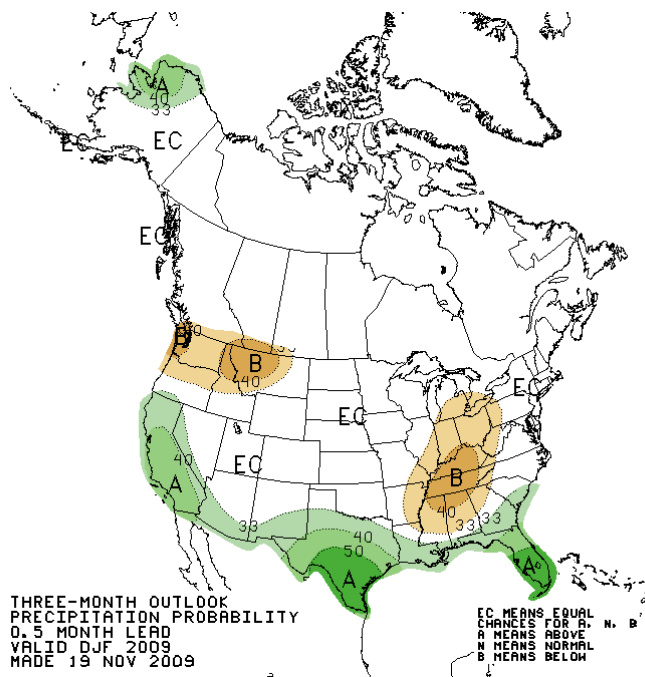
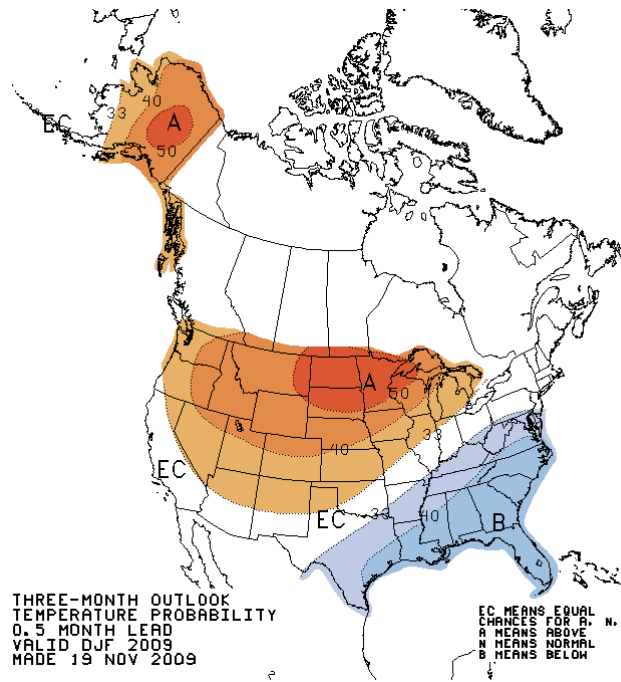
*Ed. note: Mike, AA9VI, will be at the NWS in Romeoville this Saturday operating WX9LOT on HF. Craig, KC9HWK, will be operating echolink. Hope to hear you during our special radio event!*

# Winter 2009-10 Temp./Precip. Outlook

From El Niño NWS Website:  
<http://www.elnino.noaa.gov/>

El Niño results from interaction between the surface layers of the ocean and the overlying atmosphere in tropical Pacific. It is the internal dynamics of the coupled ocean-atmosphere system that determine the onset and termination of El Niño events. The physical processes are complicated, but they involve unstable air-sea interaction and planetary scale oceanic waves. The system oscillates between warm (El Niño) to neutral (or cold) conditions with a natural periodicity of roughly 3-4 years.

Expected El Niño impacts during November 2009-January 2010 include enhanced precipitation over the central tropical Pacific Ocean and a continuation of drier-than-average conditions over Indonesia. For the contiguous United States, potential impacts include above-average precipitation for Florida, central and eastern Texas, and California, with below-average precipitation for parts of the Pacific Northwest. **Above-average temperatures and below-average snowfall is most likely for the Northern Rockies, Northern Plains, and Upper Midwest**, while below-average temperatures are expected for the southeastern states.



**El Niño** Theme Page  
 access to distributed information on El Niño

## Winter Weather Definitions

From NWS Chicago Website

**Winter Storm Watch** - Conditions are favorable for hazardous winter weather conditions including heavy snow, blizzard conditions, or significant accumulations of freezing rain or sleet. These watches are usually issued 12 to 36 hours in advance of the event.

**Winter Storm Warning** - Hazardous winter weather conditions that pose a threat to life and/or property are occurring, imminent or likely. The generic term, winter storm warning, is used for heavy snow of 6 inches or greater, heavy sleet of half inch or more, or a combination of two or more of the following winter weather events; heavy snow, freezing rain, sleet and strong winds. The following event-specific warnings are issued for a single weather hazard:

- **Blizzard Warning** - Sustained winds or frequent gusts of 35 mph or greater, considerable falling and/or blowing snow reducing visibility frequently to 1/4 mile or less for a period of three hours or more. There are no temperature criteria in the definition of a blizzard but freezing temperatures and 35 mph winds will create single digit wind chills.
- **Lake Effect Snow Warning** - Lake effect snowfall of 6 inches or more in 12 hours or less, or 8 inches or more in 24 hours or less.
- **Ice Storm Warning** - Accumulations of 1/4 inch or more of freezing rain.

**Winter Weather Advisory** - Hazardous winter weather conditions are occurring, imminent or likely. Conditions will cause a significant inconvenience and if caution is not exercised, will result in a potential threat to life and/or property. The generic term, winter weather advisory, is used for a combination of two or more of the following events; snow, freezing rain or drizzle, sleet, blowing snow.

**Wind Chill Warning** - Extreme wind chills of -30°F or colder.

A **Wind Chill Warning** is issued when the wind chill will be less than or equal to -30° AND winds greater than or equal to 10 mph.

**Wind Chill Advisory** - Dangerous wind chills of -20°F to -30°F.

A **Wind Chill Advisory** will be issued when the wind chill is less than or equal to -20° AND the winds are greater than or equal to 10 mph.



<http://www.cocorahs.org/>

"Volunteers working together to measure precipitation across the nation."

### Wind Chill Chart

		Temperature (°F)																	
		40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
Wind (mph)	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
	45	26	20	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
	55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98	

Frostbite Times: 30 minutes (blue), 10 minutes (purple), 5 minutes (red)

Wind Chill (°F) = 35.74 + 0.6215T - 35.75(V<sup>0.16</sup>) + 0.4275T(V<sup>0.16</sup>)  
 Where, T= Air Temperature (°F) V= Wind Speed (mph) Effective 11/01/01



Lake Co. Skywarn

[www.lakecountyskywarn.org](http://www.lakecountyskywarn.org)

## El Niño Means a Mild Start to Winter, But Will it Last?

Excerpts from NWS Chicago, the National Climatic Data Center and plots from Charles Fisk's website

[http://home.att.net/~chicago\\_climo/](http://home.att.net/~chicago_climo/)

According to the NWS, the average annual snowfall in our area is about 38". El Niño tells us to expect a warmer and drier winter, but that's not guaranteed for every El Niño pattern.

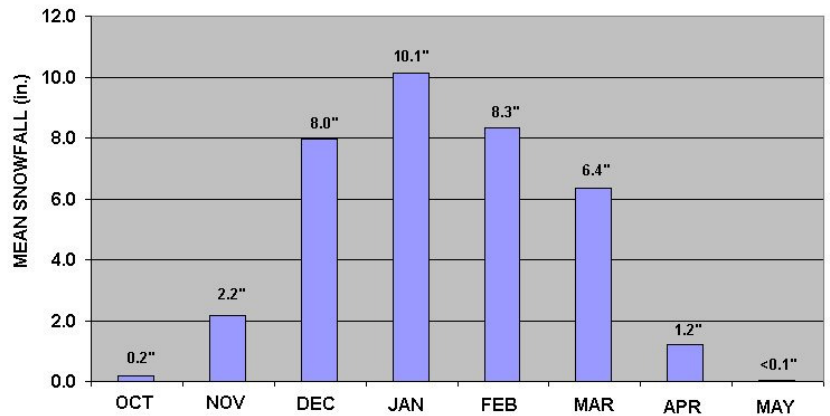
According to Amy Freeze of WFLD, 10 of the 17 El Niños on record had

above average temperatures, while 11 of 17 El Niños on record had below average snowfall. This year's El Niño is expected to weaken after the first of the year.

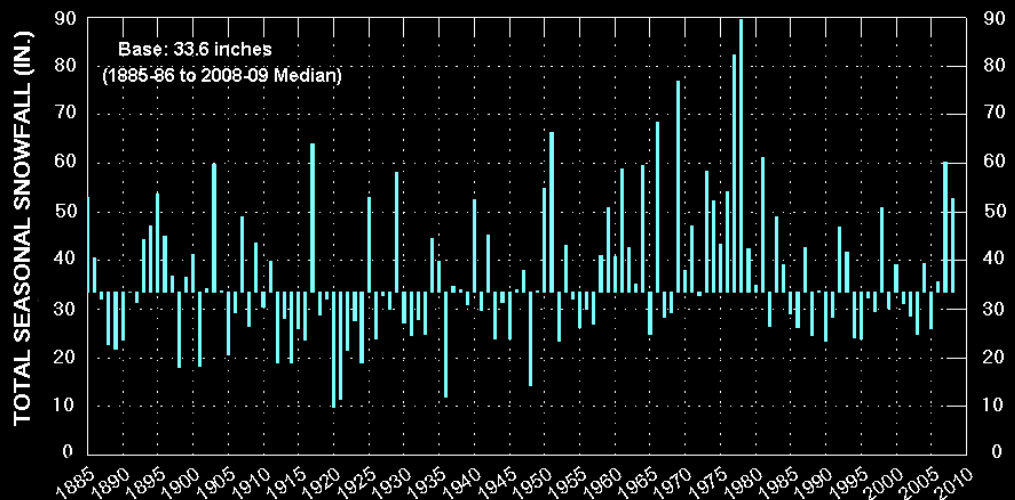
Amy goes on to write that the Pacific Decadal Oscillation will take over after the new year sending Arctic cold our way. She also says the North Atlantic Oscillation will favor jet stream patterns that will contribute to colder weather. Read it all at

<http://www.myfoxchicago.com/dpp/weather/winter-weather-outlook-amy-freeze>

**MEAN SNOWFALL, BY MONTH -- CHICAGO**  
(1885-6 THRU 2006-7 PERIOD of RECORD)



**TOTAL CHICAGO SNOWFALL, BY SEASON**  
(1885-6 THRU 2008-09 SEASONS)





## Skywarn Reporting

By Mike Swiatkowski,  
AA9VI

I have to admit, I too was confused about the Skywarn reporting procedure here in Chicagoland. Many of us had been reporting directly into the FISHFAR system. This is not correct.

The correct procedure is for spotters to report to a **Skywarn Reporting Repeater**. Lake County Races 147.18MHz and DuPage 145.43 MHz are examples of reporting repeaters. The net controller of these repeaters reports into one of the FISHFAR repeaters. The NWS monitors FISHFAR for the reports.

I recently spoke to Bill Wilson of the NWS and he indicated there is good reason for this protocol. First, the number of repeaters the NWS had to monitor is greatly reduced. At one time, NWS Chicago tried to monitor 20 repeaters. A second reason for this protocol is that irrelevant reports are filtered out. John Doe's report of a sewer that is clogged with 4" of water on the corner is not severe. The NWS is not interested in this information. Third, and most important, the FISHFAR frequencies will be more open to severe reports when the protocol is observed.

This system got sidetracked due to some

areas, like northern Cook County not having an active Skywarn Reporting Repeater. We will be addressing this. I hope to announce some great news about this during our next issue. Stay tuned!

Reminder, winter severe reports include:

- 1) Ice jams on rivers
- 2) 1" or more snow per hour
- 3) 6" or more snow in 12 hrs or less
- 4) 1/4 " or more ice accumulation
- 5) Blowing and drifting of snow with sustained wind of 35 MPH



If you haven't already set up your station, go to [winlink.org](http://winlink.org) for more details.

The statewide Winlink Packet radio 1200 baud VHF frequency is 145.61 MHz FM.

## Global Warming

By George Geotsalitis,  
NB9R

What is the average temperature of the earth?

The surface temperature of our atmosphere (averaged globally) is 59° F. If it were not for the **natural effects** of greenhouse gases such as carbon dioxide and water vapor, the global mean temperature would be 4° F.

What happens to the Carbon Dioxide released into the atmosphere?

Not all of it remains in the atmosphere. While vegetation and oceans were thought to absorb about 50%, it appears that the forests of the Northern Hemisphere absorb 3.5 billion tons per year (twice that of the oceans).

Are there any good effects specifically attributed to Carbon Dioxide?

Research suggests that CO<sub>2</sub> stimulates plant growth and reduces plant water consumption. Depending on the species, experimentation

has found that as CO<sub>2</sub> is doubled, the amount of water required could drop by between 17 and 27 percent and growth could increase by as much as 84 percent. If the various predictions for global warming were to materialize, many northern barren land-masses would become suitable forest habitats.

If global warming concerns, fascinates, frustrates or just interests you, get a copy of:

*Unstoppable Global Warming Every 1,500 Years*

S. Fred Singer & Dennis T. Avery

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*The DuPage Amateur Radio Club has a wealth of information on its site:*  
[skywarn.w9dup.org](http://skywarn.w9dup.org)

# Winter Weather and Frostbite

Excerpts from and Medicine Plus from National Institutes of Health

Frostbite is damage to body tissue caused by extreme cold. A wind chill of -20° Fahrenheit (F) will cause frostbite in just 30 minutes. Frostbite causes a loss of feeling and a white or pale appearance in extremities, such as fingers, toes, ear lobes or the tip of the nose.

According to the National Institutes of Health "The first symptoms are a 'pins and needles' sensation followed by [numbness](#). There may be an early throbbing or aching, but later on the affected part becomes insensate (feels like a "block of wood."

If someone has frost bite you should

1. Shelter the person from the cold and move him or her to a warmer place. Remove any constricting jewelry and wet clothing. Look for signs of hypothermia (lowered body temperature) and treat accordingly.

2. If immediate medical help is available, it is usually best to wrap the affected areas in sterile dressings (remember to separate affected fingers and toes) and transport the person to an emergency department for further care.

3. If immediate care is not available, rewarming first aid may be given. Soak the affected areas in warm (never hot) water -- or repeatedly apply warm cloths to affected ears, nose, or cheeks -- for 20 to 30 minutes. The recommended water temperature is 104 to 108 degrees Fahrenheit. Keep circulating the water to aid the warming process. Severe burning pain, [swelling](#), and color changes may occur during warming. Warming is complete when the skin is soft and sensation returns.

4. Apply dry, sterile dressings to the frostbitten areas. Put dressings between frostbitten or toes to keep them separated.

5. Move thawed areas as little as possible.

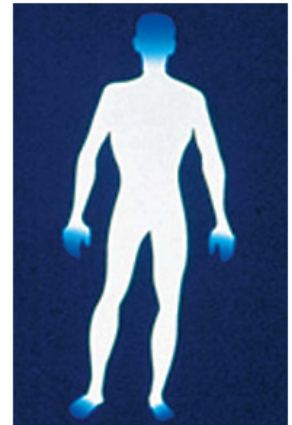
6. Refreezing of thawed extremities can cause more severe damage. Prevent refreezing by wrapping the thawed areas and keeping the person warm. If protection from refreezing cannot be guaranteed, it may be better to delay the initial rewarming process until a warm, safe location is reached.

7. If the frostbite is extensive, give warm drinks to the person in order to replace lost fluids

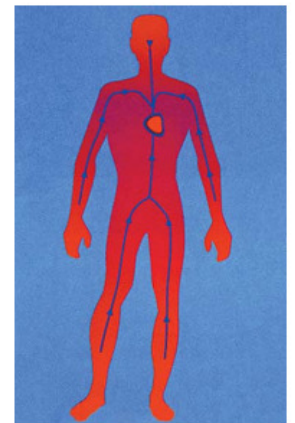
**ALSO:**

- Do NOT thaw out a frostbitten area if it cannot be kept thawed. Refreezing may make tissue damage even worse.
- Do NOT use direct dry heat (such as a radiator, campfire, heating pad, or hair dryer) to thaw the frostbitten areas. Direct heat can burn the tissues that are already damaged.
- Do NOT rub or massage the affected area.
- Do NOT disturb blisters on frostbitten skin.
- Do NOT smoke or drink alcoholic beverages during recovery as both can interfere with blood circulation.

Prevent frostbite by wearing suitable clothing in cold temperatures and protect exposed areas. In cold weather, wear mittens (not gloves); wind-proof, water-resistant, many-layered clothing; two pairs of socks (cotton next to skin, then wool); and a hat or scarf that covers the ears (to avoid substantial heat loss through the scalp).



*Hypothermia occurs when the extremities are excessively cold (blue)*



*Improperly warming the body will drive cold blood from the extremities to the heart, leading to heart failure*

## Chicagoland Skywarn

INQUIRIES/SUGGESTIONS  
[aa9vi@arrl.net](mailto:aa9vi@arrl.net)

**Join our Private Yahoo list  
(requires free membership)**

Sign up at:  
<http://aa9vi.com/wx>

### Skywarn Reporting Repeaters

Blue Island: 146.64- PL 107.2  
Downers Grove:

145.43- PL 107.2

Gilberts: 146.925- PL 100.0

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

Merillville: 146.7- PL 82.5

Morris: 147.27+ PL 107.2

Valparaiso: 147.105+ PL 131.8

Yorkville: 147.375+ 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:

[weather.gov/chicago](http://weather.gov/chicago)

tel: 800-681-2972

## Website Crib Sheet

By Mike Swiatkowski, AA9VI

Below are some additional websites that you may find interesting. If you have any suggestions, just email me!

Milwaukee Skywarn:  
<http://www.mke-skywarn.org/>

Skywarn Discussion Forum:  
<http://www.skywarnonline.com/forums/>

NOAA Weather Radio Coverage Maps:  
<http://www.nws.noaa.gov/nwr/Maps/>

Mesowest Data:  
<http://mesowest.utah.edu/cgi-bin/droman/mesomap.cgi?state=IL&rawsflag=3>

CWOP Weather Station Mapper:  
<http://www.ruysfamily.com/HighlandsRanchWeather/WeatherMapper/Default.aspx>

## Have You Registered?



Online Weather Reporting System

eSpotter is a system to facilitate the submission of spotter reports online. The system is being developed to enhance and increase timely & accurate online spotter reporting and communications between spotters and their local weather forecast offices. The use of the system is currently available for trained spotters and emergency managers their decision making.

Register now if you haven't already to submit your snowfall reports!

## CHICAGOLAND SKYWARN

MEMBER'S NAME  
STREET ADDRESS  
CITY, ST 60600

