

Winter Severe/Hazardous Weather Terms

From NOAA and the National Weather Service

The National Weather Service (NWS) is responsible for issuing winter storm Watches, Warnings and Advisories to alert the public when dangerous winter conditions are expected.

Freezing Rain - Rain that freezes upon contact with a cold surface. Freezing rain creates a glaze of ice.

Sleet - Solid grains of ice formed from rain that freezes before reaching the ground. These pellets of ice tend to bounce upon contact and may accumulate enough to cover the ground, even to a depth of several inches.

Snow Intensity versus Visibility	
Snow Intensity	Visibility
Light	greater than 1/2 statute mile
Moderate	1/4 to 1/2 statute mile
Heavy	less than 1/4 statute mile

Snow Squall - An intense fall of accumulating snow, reducing visibility significantly and often accompanied by increased winds.

Advisories/ Watches / Warnings

Advisory - A less severe winter weather event that is imminent.

Watch - The potential exists for a significant or dangerous weather event.

Warning - A significant or dangerous weather event that is imminent.

Hazardous Weather Outlook - The Hazardous Weather Outlook usually provides three to seven-day advance notice of a hazardous winter weather event which has the potential to threaten life or property.

Short Term Forecast - Describes the weather in the local area and includes a short-range forecast (usually not more than six hours). This product will be updated more frequently when it is used during active weather. This product is also sometimes referred to as a "NOWcast."

Special Weather Statement - Designed to alert the public to a short term hazardous weather threat within twelve hours of occurrence, which may require a heightened level of awareness or action.

Advisories

Highlight hazardous weather conditions which could lead to life-threatening situations if caution is not exercised. Advisories are usually issued 6-18 hours prior to the weather event.

Dense Fog Advisory - Issued when widespread fog will reduce visibility to one-fourth mile or less.

Freezing Rain Advisory - Issued for freezing rain or freezing drizzle: any accretion or accumulation up to one-fourth inch.

Lake Effect Snow Advisory - Issued when 4-5 inches of widespread or localized lake effect snow is expected to fall over the snow belt of northeast Ohio in 12 hours or less.

Wind Advisory - Issued when sustained winds are expected to be 31 - 39 mph for at least an hour, or any wind gust between 46 and 57 mph.

Wind Chill Advisory - Issued when wind chill temperatures are expected to be 10-24 degrees below zero except 20-29 degrees below zero in extreme northwest Ohio.

Winter Weather Advisory - Issued for any combination of accumulations of snow, freezing rain, freezing drizzle or sleet that will cause significant inconvenience and moderately dangerous conditions. An advisory is also issued when visibilities from a combination of snow and blowing snow will be reduced to ¼ mile or less. An advisory is issued when snow is expected to accumulate 3-5 inches in 12 hours in northern Ohio and 2-3 inches in 12 hours in southern Ohio.

Watches

A Watch means the potential exists for a significant/dangerous weather event. A Watch is usually issued between 12 and 48 hours before a weather event.

Blizzard Watch - Alerts the public to the potential for blizzard conditions. Watches are usually issued 12 to 48 hours before the beginning of blizzard conditions.

High Wind Watch - Issued when there is the potential for dangerous winds.

Lake Effect Snow Watch - Issued when there is a potential for a significant lake effect snow event.

Wind Chill Watch - Issued when there is a potential for dangerous wind chill values.

Winter Storm Watch - Alerts the public to the potential for heavy snow, significant icing or a combination of these events. Watches are usually issued 12 to 48 hours before the beginning of a winter storm.

Warnings

A Warning means a significant or dangerous weather event is imminent. Warnings are usually issued 6-18 hours prior to the weather event.

Blizzard Warning - Issued for sustained or gusty winds of 35 mph or more and falling or blowing snow creating visibilities below $\frac{1}{4}$ mile. These conditions usually persist for at least three hours.

High Wind Warning - Issued for when sustained winds will be 40 mph or greater for at least one hour, or any gust of wind expected to be 58 mph or greater.

Ice Storm Warning - Issued if the event will be entirely ice accrual.

Criteria: ice accumulation of $\frac{1}{4}$ inch or more from freezing rain and damage expected.

Lake Effect Snow Warning - Issued for the snow-belt of Northeast Ohio when lake effect snow is expected to accumulate to 6 inches or more in 12 hours or less, or 8 inches of snow in 24 hours or less.

Wind Chill Warning - Issued for dangerous, life-threatening wind chills less than or equal to -25 degrees Fahrenheit except -30 degrees Fahrenheit in extreme northwest Ohio.

Winter Storm Warning - A Winter Storm Warning is issued for heavy snow or when a combination of heavy snow, heavy freezing rain, heavy sleet or blowing and drifting snow is expected to occur. The heavy snow criterion for a warning follows below.

Criteria: Approximately 6 inches of snow is expected in 12 hours or less across Northern and Central Ohio, and 4 inches in 12 hours across Southern Ohio; or approximately 8 inches or more of snow in 24 hours or less across northern and central Ohio and 6 inches or more of snow in 24 hours across Southern Ohio.

See the following winter storm warning criteria maps provided by the National Weather Service:



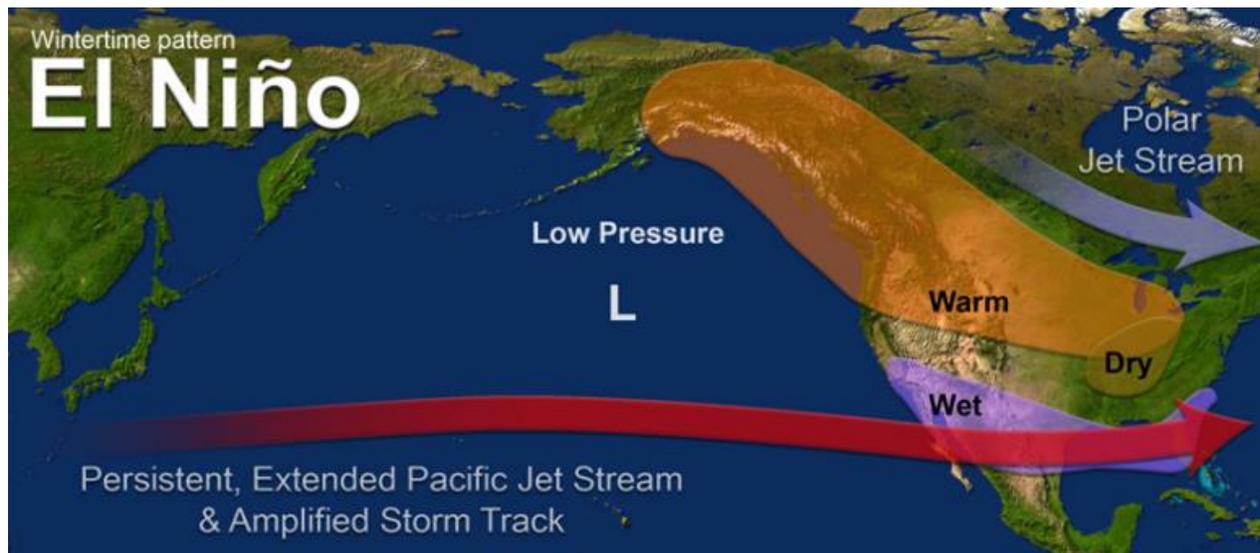
12-Hour Winter Storm Warning Criteria



24-Hour Winter Storm Warning Criteria



What are El Niño and La Niña?



El Niño means *The Little Boy* in Spanish. The term El Niño refers to the large-scale ocean-atmosphere climate interaction linked to a periodic warming in sea surface temperatures across the central and east-central Equatorial Pacific.

Typical El Niño effects are likely to develop over North America during the upcoming winter season. Those include warmer-than-average temperatures over western and central Canada, and over the western and northern United States. Wetter-than-average conditions are likely over portions of the U.S. Gulf Coast and Florida, while drier-than-average conditions can be expected in the Ohio Valley and Pacific Northwest. The presence of El Niño can significantly influence weather patterns, ocean conditions and marine fisheries across large portions of the globe for an extended period of time.

La Niña means *The Little Girl* in Spanish. La Niña is sometimes called “anti-El Niño,” or simply “a cold event.”

La Niña episodes represent periods of below-average sea surface temperatures across the east-central Equatorial Pacific. Global climate La Niña impacts tend to be opposite those of El Niño impacts. In the tropics, ocean temperature variations in La Niña also tend to be opposite those of El Niño. During a La Niña year, winter temperatures are warmer than normal in the Southeast and cooler than normal in the Northwest.

[NOAA Winter Outlook](#) (December 2016 – February 2017)

What is the Polar Vortex?

The polar vortex is a large area of low pressure and cold air surrounding both of the Earth's poles. It always exists near the poles, but weakens in summer and strengthens in winter. The term "vortex" refers to the counter-clockwise flow of air that helps keep the colder air near the North and South Poles.

Many times during the winter in the northern hemisphere, the polar vortex will expand, sending cold air southward with the jet stream (see graphic). This occurs fairly regularly during wintertime and is often associated with large outbreaks of Arctic air in the United States.

The one that occurred during January 2014 is similar to many other cold outbreaks that have occurred in the past, including several notable outbreaks in 1977, 1982, 1985 and 1989.

There is no reason to be alarmed when you hear about the polar vortex, but you should be prepared for colder temperatures and extreme cold.

