National Weather Service (NWS) NYC/Upton, NY

Winter Storm Fact Sheet

Definitions:

Ice Storm: A storm producing heavy accumulations of ice. Such accumulations can bring down trees; producing widespread power and communication outages, structural damage, and poses an extreme danger to motorists and pedestrians.

A <u>Winter Storm Watch</u> is issued 12 to 48 hours before the event when there is the potential for ice accumulations to meet or exceed ½ inch. An <u>Ice Storm Warning</u> is issued within 36 hours when there is high level of confidence that the event will occur.

A <u>Freezing Rain Advisory</u> is issued within 36 hours when a trace or more of freezing rain and/or freezing drizzle is forecast, but is expected to remain below warning criteria. Patchy freezing rain events will be handled through the issuance of a <u>Special Weather Statement</u> and <u>Hazardous</u> <u>Weather Outlook</u>.

Blizzard: A storm producing winds of 35 mph or more with snow and/or blowing snow reducing visibility to less than ¹/₄ mile for at least 3 hours.

A <u>Blizzard Watch</u> is issued 12 to 48 hours before the event and a <u>Blizzard Warning</u> within 36 hours when there is a high level of confidence that the event will occur.

Winter Storm: When one or a combination of heavy snow, heavy snow and blowing snow, snow and freezing rain, snow and sleet, sleet and freezing rain, or snow, sleet and freezing rain meet or exceed locally defined 12 and/or 24 hour warning criteria for <u>at least one</u> of the precipitation elements.

A <u>Winter Storm Watch</u> is issued 12 to 48 hours before the event and a <u>Winter Storm Warning</u> within 36 hours when there is a high level of confidence that the event will occur.

A <u>Winter Weather Advisory</u> is issued within 36 hours when one or a combination of snow, snow and blowing snow, snow and freezing rain, snow and sleet, sleet and freezing rain, or snow, sleet and freezing rain meet or exceed locally defined advisory criteria for at least one of the precipitation elements, but remaining below warning criteria.

Weather Element	Local Warning Criteria	Local Advisory Criteria					
Snow	6 inches in 12 hours, or	3 or more inches					
	8 inches in 24 hours						
Freezing Rain	¹ / ₂ inch or more of ice	Trace					
Wind Chill Temperature	< -25 °F	-15 °F to -24 °F					

Wind Chill Temperature: A "Reel Feel" temperature that takes into account how wind and cold feels on exposed skin.

<u>Frostbite</u> is damage to body tissue caused by extreme cold. A wind chill temperature of -20 $^{\circ}$ F will cause frostbite in just 30 minutes.

Hypothermia is a condition brought on when the body temperature drops to less than 95 ° F.

A <u>Wind Chill Watch</u> is issued 12 to 48 hours before the event when there is the potential for wind chill temperatures of minus 25 °F or colder. A <u>Wind Chill Warning</u> is issued within 36 hours when there is a high level of confidence that the event will occur.

A <u>Wind Chill Advisory</u> is issued within 36 hours when wind chill temperatures of minus 15 $^{\circ}$ F to minus 24 $^{\circ}$ F are forecast.

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Temperature (°F)																			
(Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
	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
(hc	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
Wind (mph)	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
p	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
Wi	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
	45	26	19	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 10 minutes 5 minutes																			
Wind Chill (°F) = 35.74 + 0.6215T - 35.75(V ^{0.16}) + 0.4275T(V ^{0.16}) Where, T= Air Temperature (°F) V= Wind Speed (mph) Effective 11/01/01											1/01/01								

NWS Products for Winter Storm Emergency Planning

National Weather Service NYC/Upton, NY http://www.erh.noaa.gov/okx

Three-tiered Approach:

1. Winter Storm Outlook: Contained in the Hazardous Weather Outlook (HWO) Days 2 to 7 Section. The outlook will include a short and concise statement when there is a 30% or greater confidence in meeting or exceeding local **Warning** criteria.

http://www.crh.noaa.gov/product.php?site=NWS&issuedby=OKX&product=HWO&format=CI &version=1&glossary=1&highlight=off

2. Winter Storm Watch (WSW): Issued 12 to 48 hours before a hazardous winter weather event that has the potential to threaten life or property. Confidence level is 50% or higher.

3. Warning/Advisory (WSW)

- A. Winter Storm Warning (WSW): Issued within 36 hours of the onset of a hazardous winter weather event that poses a threat to life and/or property. Confidence level is 80% or higher.
- B. Winter Weather Advisory (WSW): Issued within 36 hours of the onset of a hazardous weather event that <u>could</u> lead to life-threatening situations if caution is not exercised. Confidence level is 80% or higher.

http://www.crh.noaa.gov/product.php?site=NWS&issuedby=OKX&product=WSW&format=CI &version=1&glossary=1&highlight=off

Additional Products:

Special Weather Statement: Used to alert customers to short term hazardous weather up to 6 hours, which will require a heightened level of awareness or action. In many instances, these statements will supplement information already contained in other products.

http://www.crh.noaa.gov/product.php?site=NWS&issuedby=OKX&product=SPS&format=CI&version=1&glossary=1&highlight=off

6 Hour Snow Amounts through 36 hours:

http://www.erh.noaa.gov/ndfd/graphical/sectors/okx.php

Storm Total Snow/Ice Forecast (coming soon): Forecast graphic detailing total snowfall and ice accumulation for the ongoing or upcoming event.

http://www.erh.noaa.gov/okx/winterweather.html

Winter Weather Preparedness Webpage: Winter Weather Safety and Awareness Information, Snow Climatology for the Tri-State Area, Local Winter Storm Criteria, Winter Season Outlooks, Current Watch/Warning/Advisory Map, NWS's Hydrometeorological Prediction Center's (HPC) Days 1-3 Winter Weather Forecasts

http://www.hpc.ncep.noaa.gov/wwd/winter_wx.shtml

Hydrometeorological Prediction Center (HPC) Days 1-3 Winter Weather Forecasts

http://www.hpc.ncep.noaa.gov/wwd/winter_wx.shtml

Snowfall Probability Forecasts: Charts depicting the probability of snowfall reaching or exceeding 4, 8, 12 inches (Days 1-3).

Freezing Rain (Ice) Probability Forecasts: Charts depicting the probability of freezing rain reaching or exceeding ¹/₄ inch (Days 1-3).

Composite Snowfall/Freezing Rain Probability Forecasts: Four-panel charts depicting the probabilities of snow reaching or exceeding 4, 8, 12 inches and the probability of freezing rain reaching or exceeding ¹/₄ inch.

******These graphics are also accessible from the National Weather Service, NYC/Upton Winter Weather Preparedness Webpage**