

New York State Winter Weather Awareness Week October 20th to October 26th, 2013

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Binghamton NY



Why do we need to be prepared for the upcoming winter?

- New York State is known for its cold, snowy and icy winters, especially in upstate NY. However, every part of the state is vulnerable to big snow and ice storms and bitter cold.
- Winter weather can be dangerous if you are not prepared.

Annual Fatalities

- Annually 50 people are directly killed nationwide from winter storms and cold.
- Thousands more are killed in winter-related motor vehicle accidents. Many more are injured.
- Approximately 30 percent of fatalities due to winter storms come from automobile accidents. Many more are injuries from automobile accidents.
- Approximately 60 percent of fatalities occur when people get caught out in a storm.

Winter Hazards

- Heavy Snow
- Ice
- Cold Outbreaks
- Flooding

Buffalo, December 2010
Courtesy: Getty Images



April 2005
Binghamton, NY



February 2007
Oswego County, NY

Snowstorm Definitions

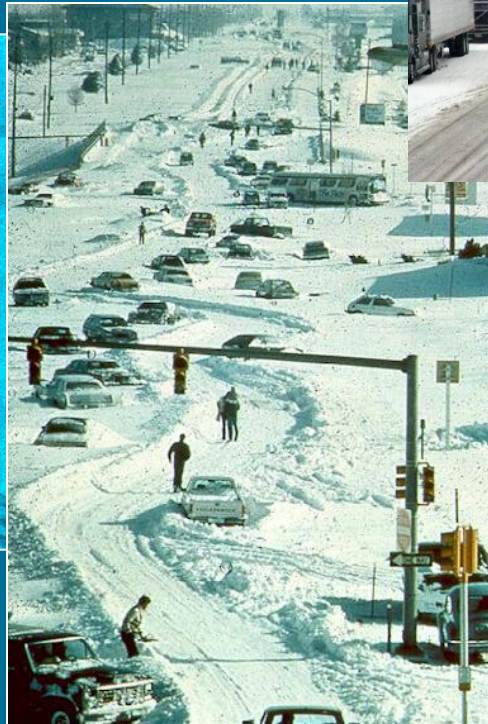
- Heavy Snow: 7 inches or more/12 hours.
- Blizzard: the most severe winter storm. Wind or wind gusts exceeding 35 mph for 3 hours or more combined with blowing and/or falling snow. Visibilities near zero. Widespread whiteout conditions.

Blizzards are a serious life-threatening weather hazard!!!!

- Snow Squall: intense periods of snow with near blizzard or blizzard conditions at times.
- Snow Shower: intermittent accumulating snow
- Snow Flurries: very light snow with little or no accumulation.

Heavy Snow Impacts

- Disrupts Transportation



Buffalo, December 2010
Courtesy: Getty Images



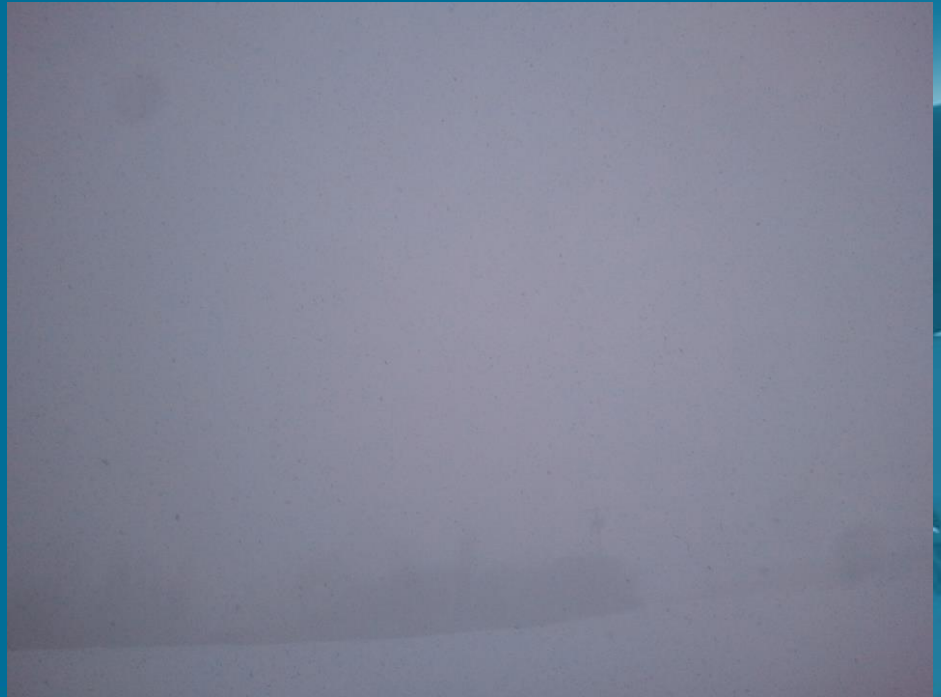
Heavy Snow Impacts

- **Traffic Accidents**
 - *Driving too fast for conditions.*
 - *Suddenly driving into white-out conditions*
 - **Poor visibility.**
 - **Hitting a snow drift at high speeds.**
 - **Hitting snowy or icy patches at high speeds.**



Dangerous Snow Squalls

- Often occur along arctic frontal boundaries. Generally only minor snow accumulations
- But near zero visibility in heavy snow, and dangerous road conditions occur quickly.



Heavy Snow Impacts

- **Closes Schools and Businesses**



Heavy Snow Impacts

- Cost of Plowing and Snow Removal



Heavy Snow Impacts

- Weight of heavy snow can cause roof collapse
- Break tree limbs and utility lines

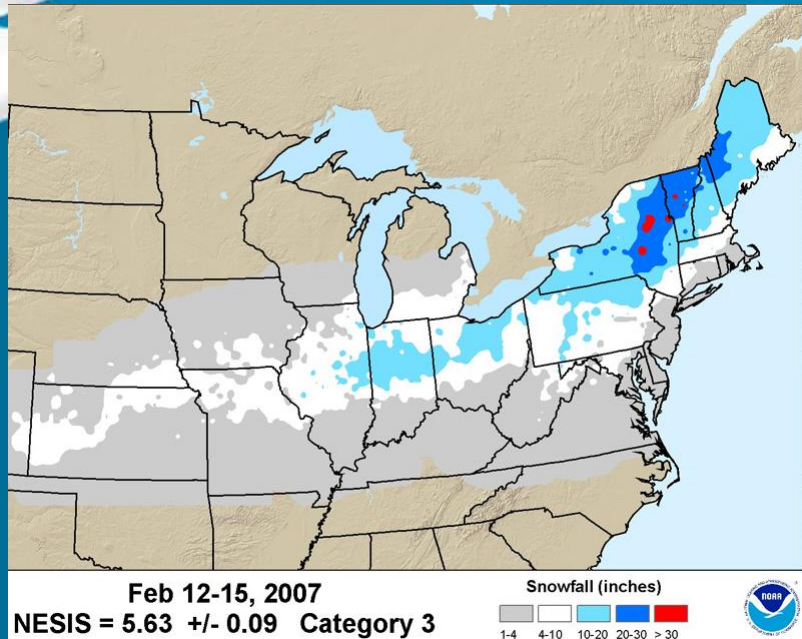


Blizzards

- The March 12-14 1993 Blizzard affected over 100 million people.
- Up to three feet of snow from Alabama to New York impacted 26 states.
- Crippled economic activities of one-third of the U.S., economic losses exceeding \$2 billion, property losses at \$4 billion.
- All East Coast airports closed, 25% of nation's flights cancelled.
- Millions without power.
- 250 fatalities.

NOAA Satellite Image

Valentine's Day Snowstorm – 2007

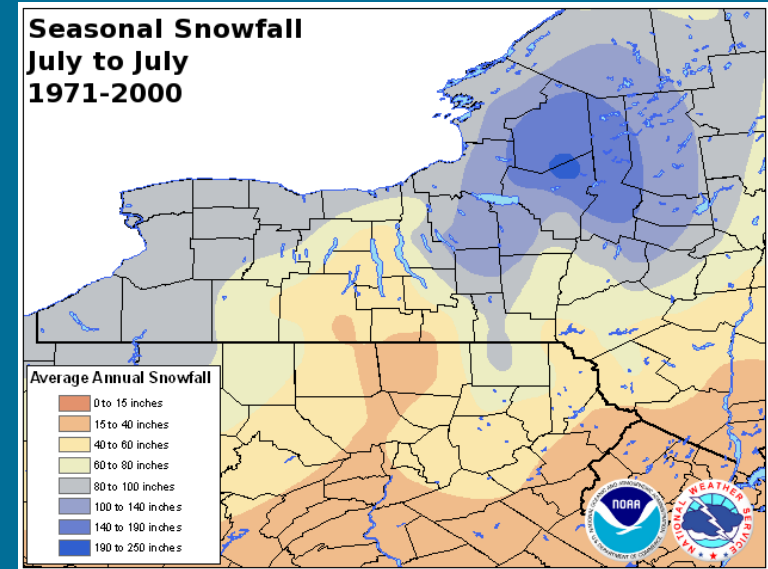
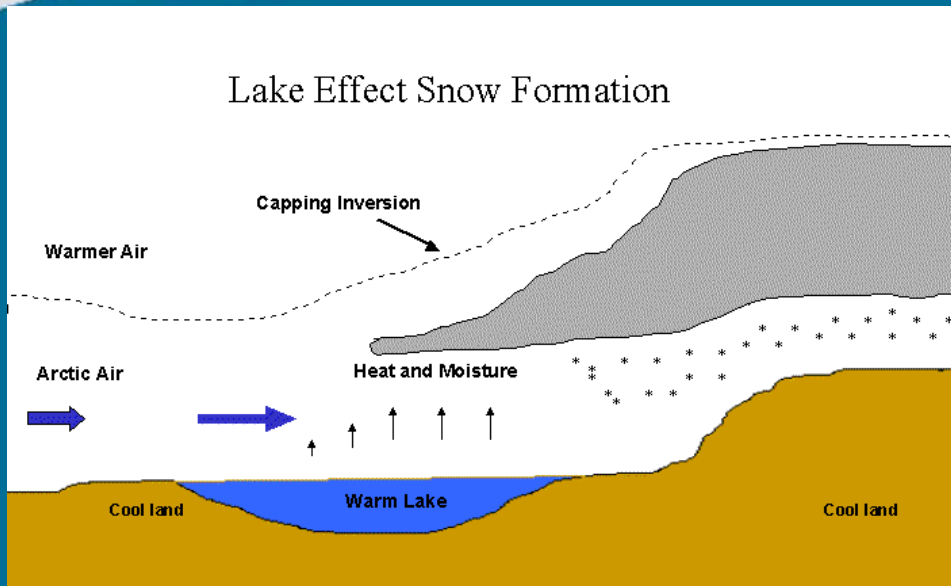


- Over 30 in. of snow across the Catskills
- Highest = 39 inches in Roseboom (Otsego County)
- Most locations around central NY averaged between 15-30 inches
- Snow began Tuesday evening (2/13) and continued through the early morning hours on the 15th

- Most intense portion of the storm occurred during the early morning on the 14th, with heavy snow and near blizzard conditions.
- Roof collapses occurred



Lake Effect Snow: Common in Upstate New York



- Warm water heats air above
- Warm air is unstable and rises
- Snow bands form
- Mountains add additional lift



Record Lake Effect Snows February 3-12, 2007

- Incredibly Mild December 2006 and Early January 2007
- Cold arctic air returns for late January and February 2007
 - *10+ feet of snow fell in the lake effect snow belts of northern NY!*



Ice Storms in New York

- Heavy weight of ice brings down trees and power lines.



January 1998

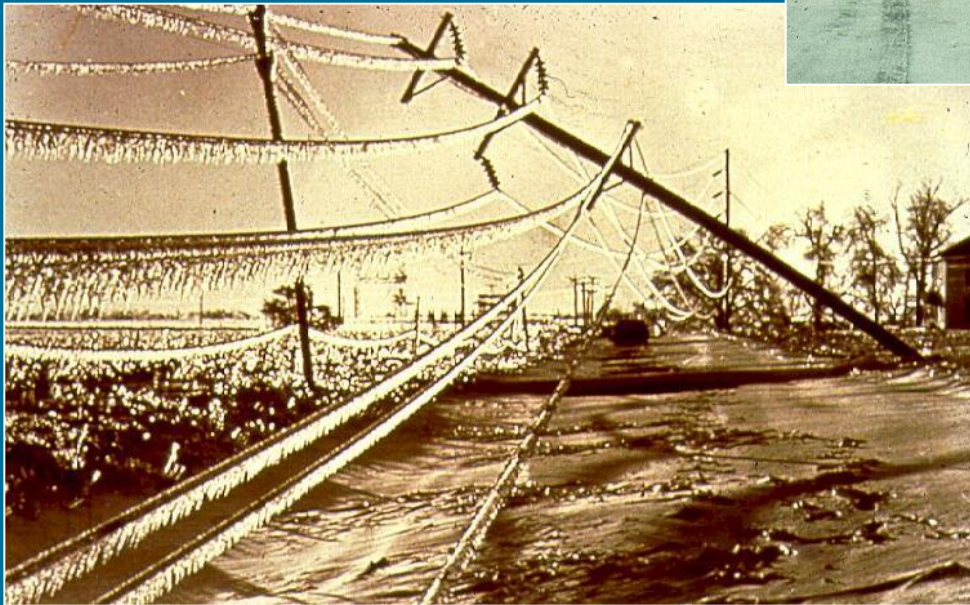
Ice Storms: Definitions

- **Freezing rain:** rain that freezes on contact with all exposed surfaces. Objects become encased in ice and can damage trees and power lines.
- **Sleet:** Frozen raindrops that bounce on impact with the ground. Does NOT glaze over or encase objects with ice.

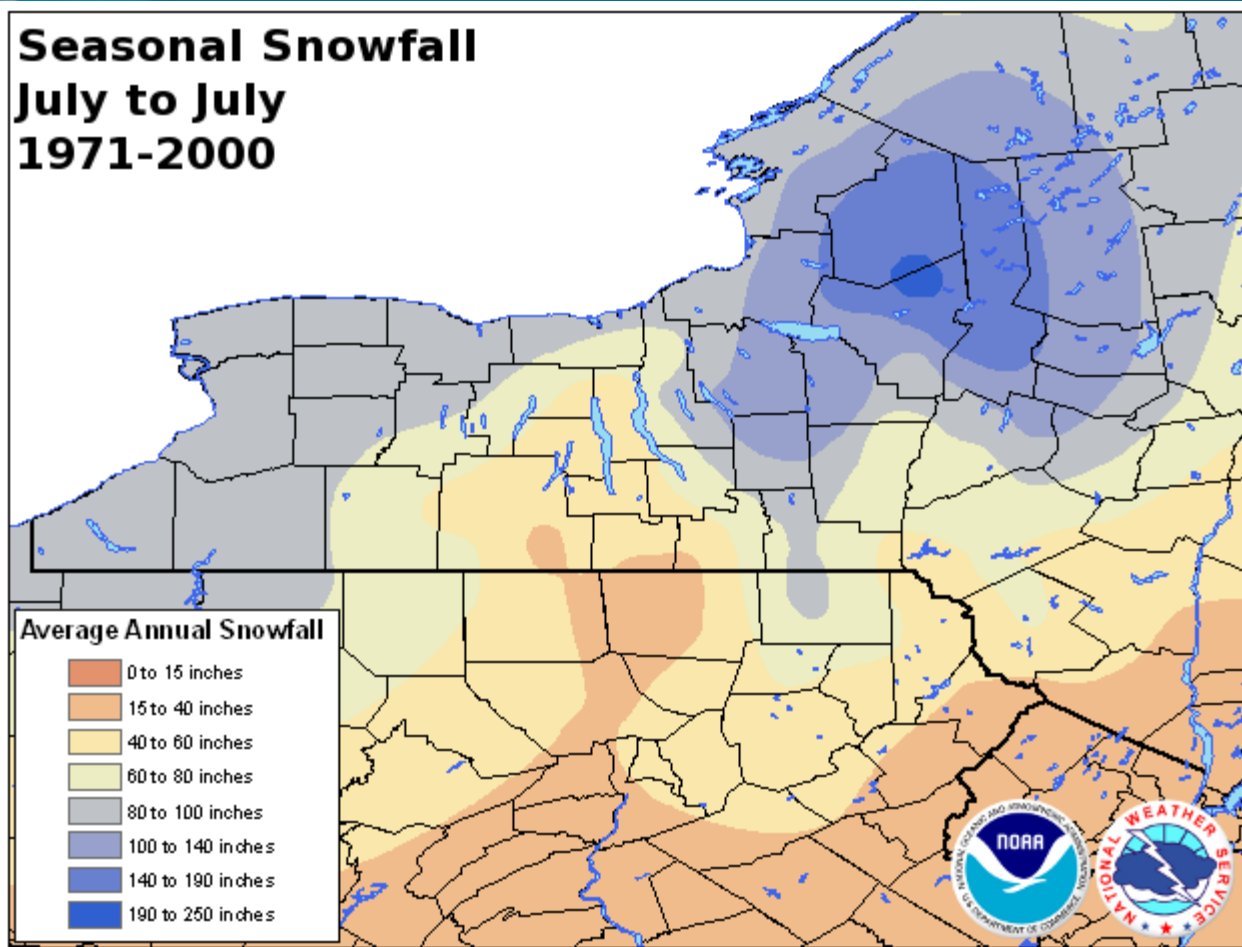


Ice Impacts

- Power and Communication lines come down
- Traffic accidents
- Pedestrian falls

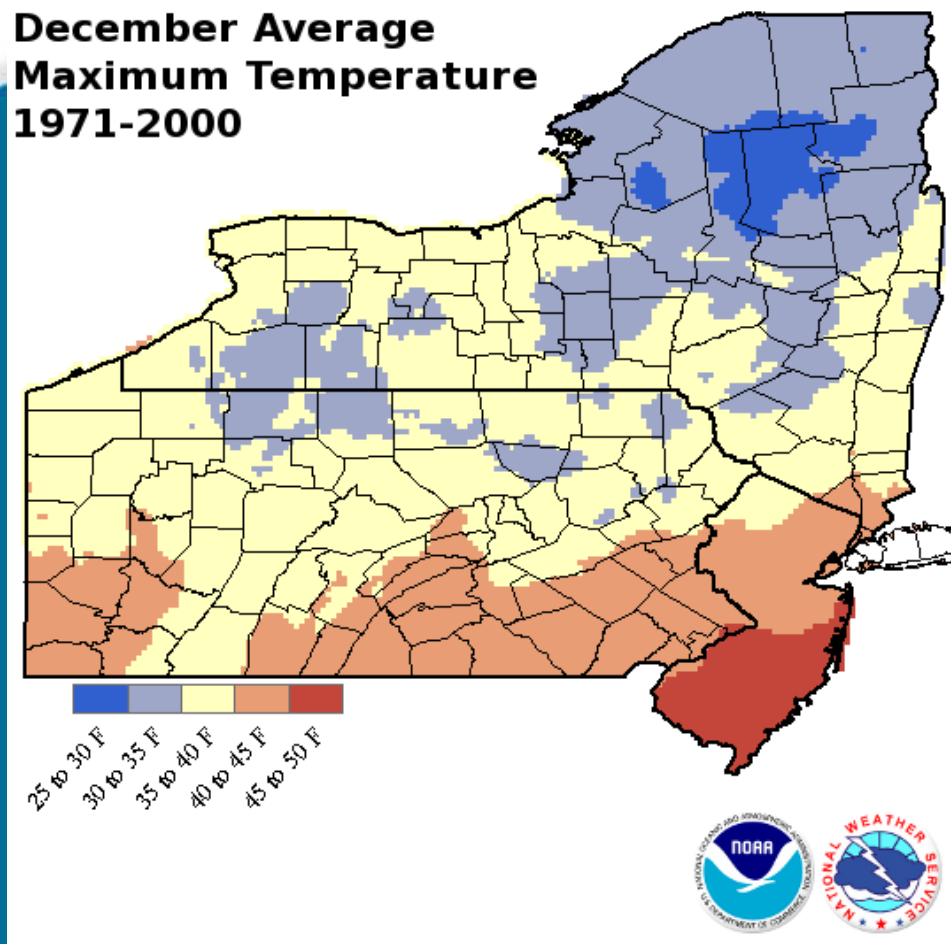


Normal Seasonal Snowfall

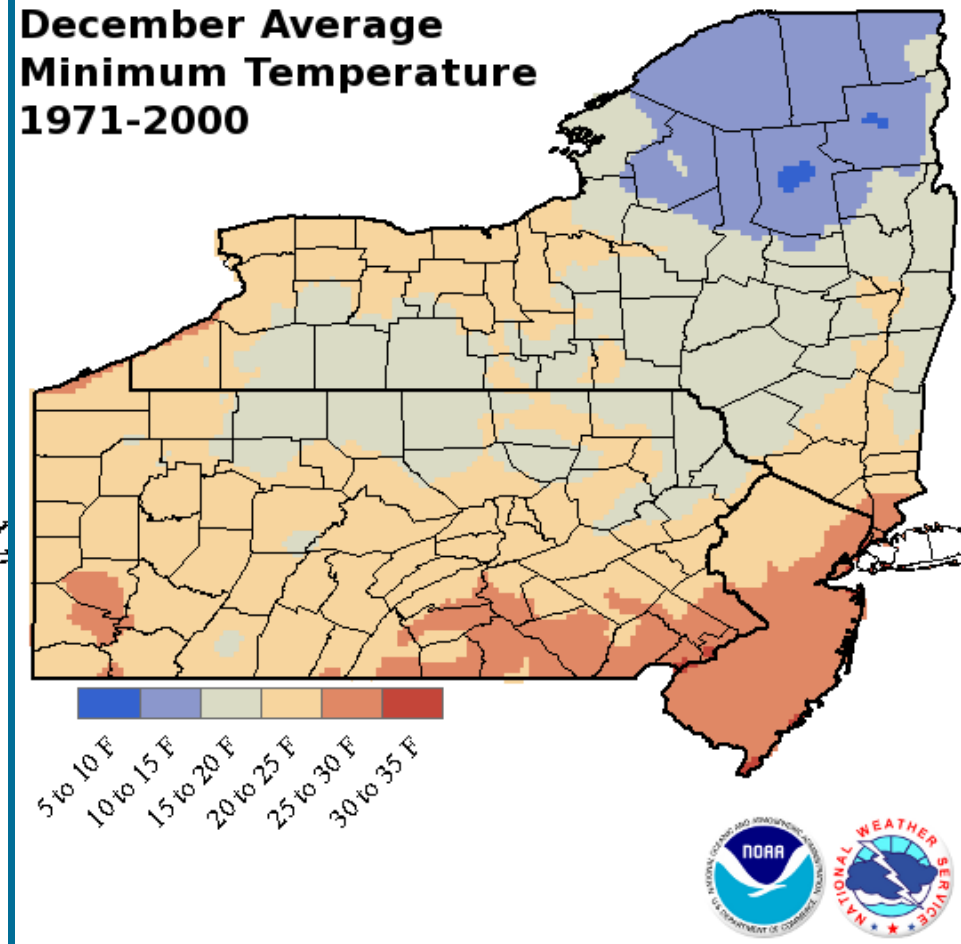


Normal High and Low Temperatures for December

December Average Maximum Temperature 1971-2000

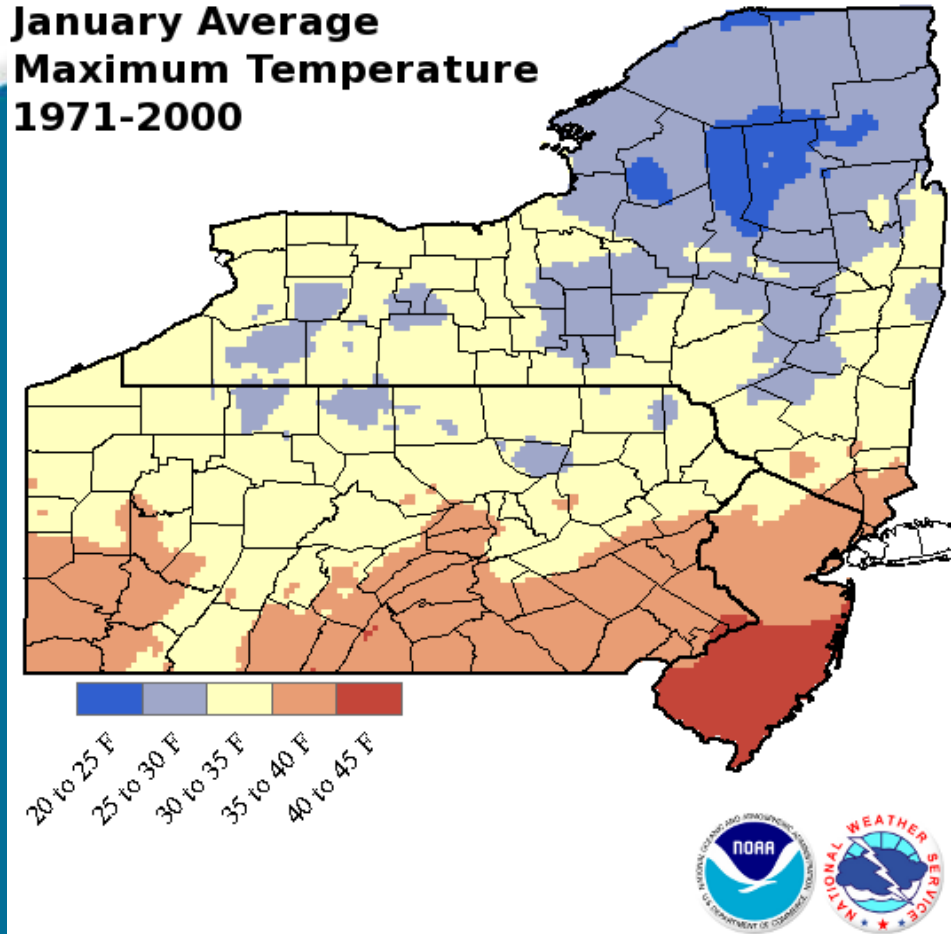


December Average Minimum Temperature 1971-2000

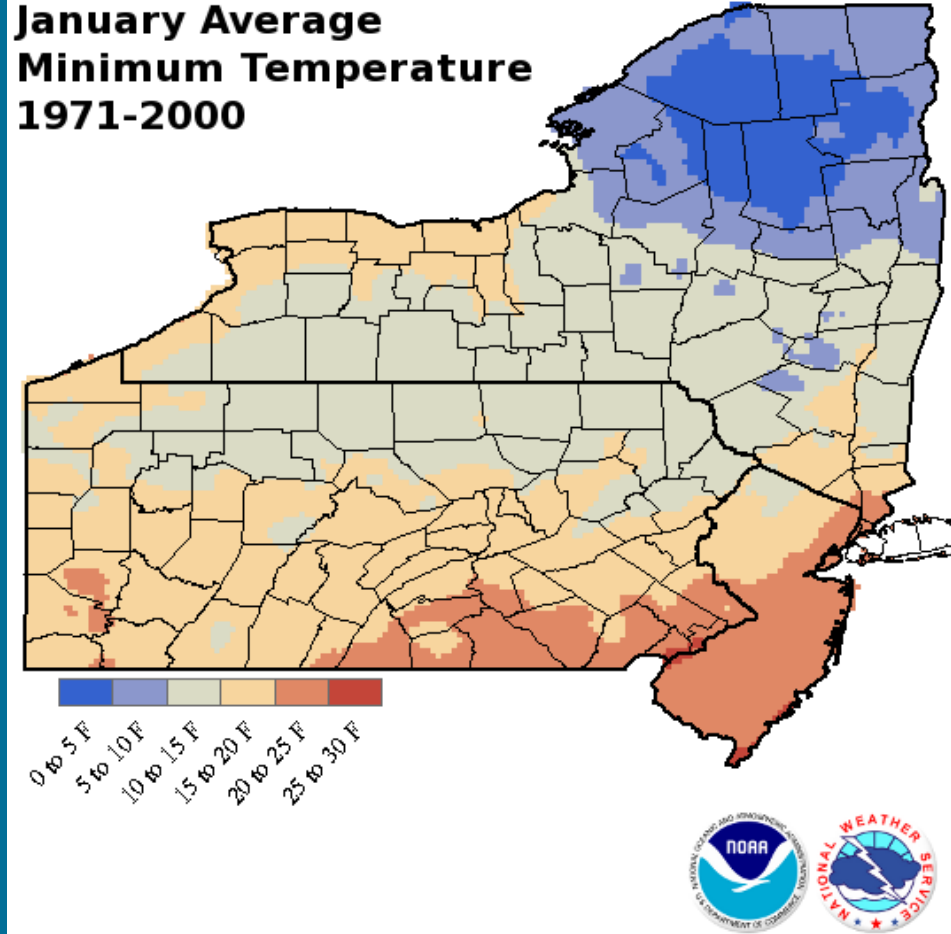


Normal High and Low Temperatures for January

January Average Maximum Temperature 1971-2000

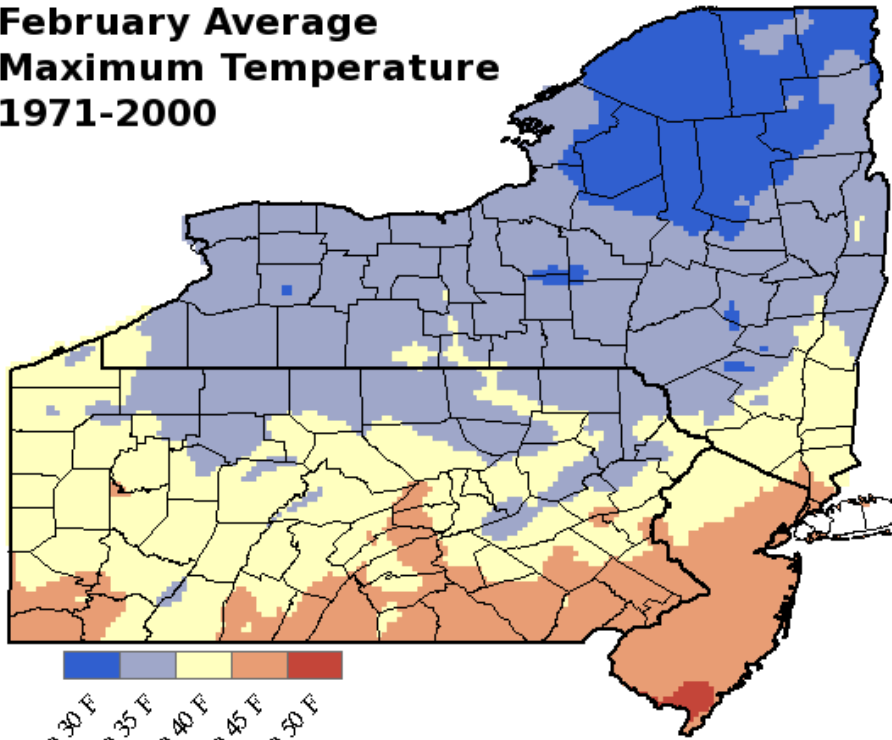


January Average Minimum Temperature 1971-2000



Normal High and Low Temperatures for February

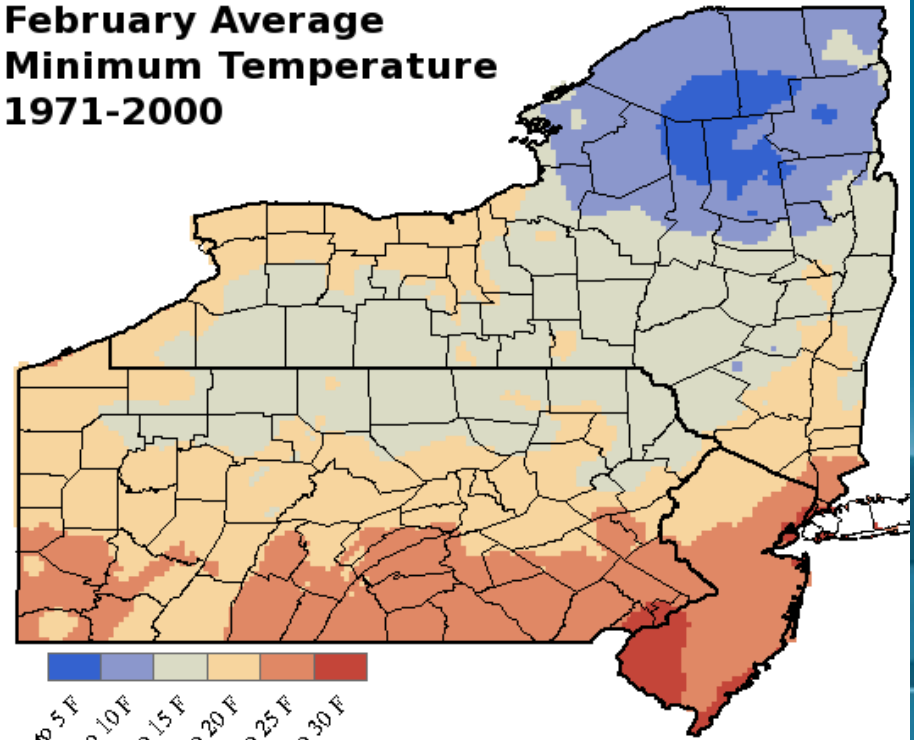
**February Average
Maximum Temperature
1971-2000**



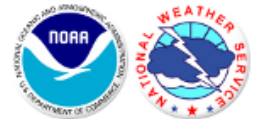
25 to 30 F
30 to 35 F
35 to 40 F
40 to 45 F
45 to 50 F



**February Average
Minimum Temperature
1971-2000**



0 to 5 F
5 to 10 F
10 to 15 F
15 to 20 F
20 to 25 F
25 to 30 F



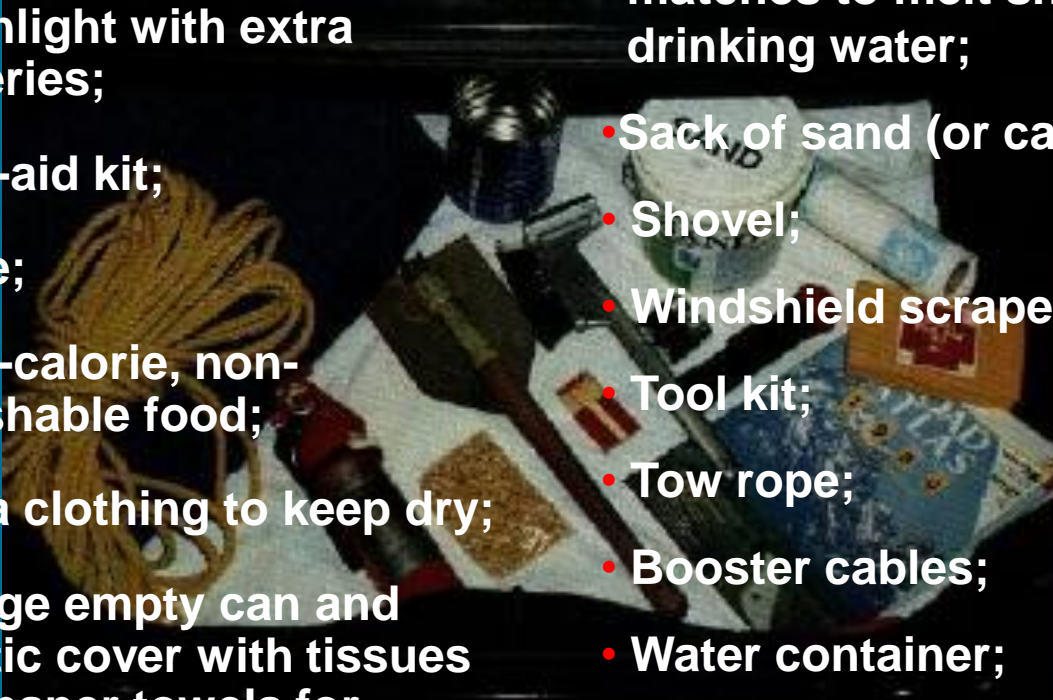
Winter Weather Safety- At Home



- *Flashlight and extra batteries.*
- *Battery-powered NOAA Weather Radio and portable radio to receive emergency information.*
- *Extra food and water – at least a 3-day supply.*
- *Extra medicine and baby items.*
- *First-aid supplies.*
- *Heating fuel.*
- *Emergency heating source, such as a fireplace, wood stove, space heater, etc.*
- *Fire extinguisher and smoke detector.*

Winter Storm Survival Kit- Automobiles

- Blankets/sleeping bags;
- Flashlight with extra batteries;
- First-aid kit;
- Knife;
- High-calorie, non-perishable food;
- Extra clothing to keep dry;
- A large empty can and plastic cover with tissues and paper towels for sanitary purposes;
- A smaller can and water-proof matches to melt snow for drinking water;
- Sack of sand (or cat litter);
- Shovel;
- Windshield scraper and brush;
- Tool kit;
- Tow rope;
- Booster cables;
- Water container;
- Compass and road maps.



Automobile Safety in Winter Storms

- Plan your travel and check the latest weather reports to avoid the storm!
- Fully check and winterize your vehicle before the winter season begins.
- Keep your gas tank near full to avoid ice in the tank and fuel lines.
- Try not to travel alone.
- Let someone know your timetable and primary and alternate routes.



Winter Watches

- **Winter Storm Watch:** Potential (50% chance or more) for a winter storm. A winter storm watch is used to cover all of the potential hazards from snow to ice to wind and extreme cold.

- Potential exists for 7 inches of snow or more in 12 hours or less; 9 inches of snow or more in 24 hours or less.
- Potential exists for ½ inch or more of ice.

- **Blizzard Watch:** Potential exists for blizzard conditions.

- **Lake Effect Snow Watch:** 7 inches or more of lake effect snow possible.

- **Wind Chill Watch:** Potential exists for wind chills of -25°F or less, with winds of ≥ 5 mph, lasting longer than one hour.



Winter Warnings

- **Winter Storm Warning**

- *7 inches of snow or more in 12 hours or 9 inches of snow or more in 24 hours.*
- *Dangerous combination of snow, ice, low wind chill, and/or blowing/drifting snow.*

- **Lake Effect Snow Warning**

- *7 inches or more of lake effect snow in 12 hours*
- *Localized accumulations; not all areas will see heavy lake effect snow.*

- **Ice Storm Warning**

- *1/2 inch or more of ice.*

- **Blizzard Warning**

- *Blizzard conditions expected: Wind or wind gusts exceeding 35 mph for 3 hours or more combined with blowing and/or falling snow. Visibilities near zero. Widespread whiteout conditions.*

- **Wind Chill Warning**

- *Wind Chills of -25F or less*



Winter Advisories

- **Winter Weather Advisory:**
 - *4 to 6 inches of snow.*
 - *Hazardous combination of snow, ice, low wind chill, and/or blowing/drifting snow.*
- **Freezing Rain Advisory**
 - *Any accumulation of ice*
- **Lake Effect Snow Advisory**
 - *4 to 6 inches of lake effect snow*
- **Wind Chill Advisory:**
 - *Wind chills of -15°F to -24°F*



Advisories vs. Warnings

- Advisories are issued for significant winter weather events that could be life-threatening if proper precautions are not taken.
- Warnings are issued when the event can be life-threatening even with precautions.

Wind Chill



NWS Windchill 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	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

$$\text{Wind Chill (°F)} = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$$

Where, T= Air Temperature (°F) V= Wind Speed (mph)

Effective 11/01/01

<http://www.nws.noaa.gov/om/windchill/index.shtml>

Keeping Informed This Winter



Hazardous Weather Outlook

1 to 7 Day Outlook

Text Product

Issued daily at 5 am, 4 pm and updated as needed

ZCZC ALBHWOBGM
FLUS41 KBGM 110103
HAZARDOUS WEATHER OUTLOOK
NATIONAL WEATHER SERVICE BINGHAMTON NY
803 PM EST SAT FEB 10 2007

NYZ023>025-044>046-055>057-062-PAZ038>040-043-044-047-048-072-120115-
SCHUYLER-CHEMUNG-TOMPKINS-CORTLAND-CHENANGO-OTSEGO-TIOGA-BROOME-
DELAWARE-SULLIVAN-BRADFORD-SUSQUEHANNA-NORTHERN WAYNE-WYOMING-
LACKAWANNA-LUZERNE-PIKE-SOUTHERN WAYNE-
803 PM EST SAT FEB 10 2007

THIS HAZARDOUS WEATHER OUTLOOK IS FOR PORTIONS OF CENTRAL NEW
YORK...SOUTHEASTERN NEW YORK AND NORTHEAST PENNSYLVANIA.

.DAY ONE...TONIGHT

NO HAZARDOUS CONDITIONS ARE EXPECTED THIS PERIOD.

.DAYS TWO THROUGH SEVEN...

**THE POTENTIAL EXISTS FOR SIGNIFICANT SNOWFALL TUESDAY AND WEDNESDAY.
THE POTENTIAL EXISTS FOR SIGNIFICANT SNOWFALL FROM A COASTAL STORM
TUESDAY INTO WEDNESDAY. THERE IS STILL MUCH UNCERTAINTY AS TO THE TRACK
OF THIS STORM. THERE IS STILL A CHANCE THAT THE HEAVIEST SNOW STAYS SOUTH
AND EAST OF THE REGION. .SPOTTER INFORMATION STATEMENT... SPOTTER
ACTIVATION WILL NOT BE NEEDED.**

.SPOTTER CALL TO ACTION STATEMENT...

FORMAL SKYWARN ACTIVATION IS NOT ANTICIPATED TODAY OR TONIGHT.
HOWEVER...SNOW SPOTTERS ARE ENCOURAGED TO CALL IN THEIR REPORTS TO
THE NATIONAL WEATHER SERVICE IN BINGHAMTON.

\$\$

NOAA Weather Radio: The Voice of the National Weather Service





- HOME
- FORECAST
- PAST WEATHER
- WEATHER SAFETY
- INFORMATION CENTER
- NEWS
- SEARCH
- ABOUT

Local forecast by "City, St" or ZIP code

[Location Help](#)

We Need Your Feedback! Take Our Weather Survey

The NWS is undertaking its annual research to better serve your needs. Please take our survey at the link below. The survey will take about 20 minutes to complete and need not be finished all at once. We also encourage you to take a moment and complete one or more of the additional sections focused on Hazardous Weather, Marine Weather, and Aviation Weather. Thank you.

[Read More...](#)

[Click here for NWS:](#)

Customize Your Weather.gov

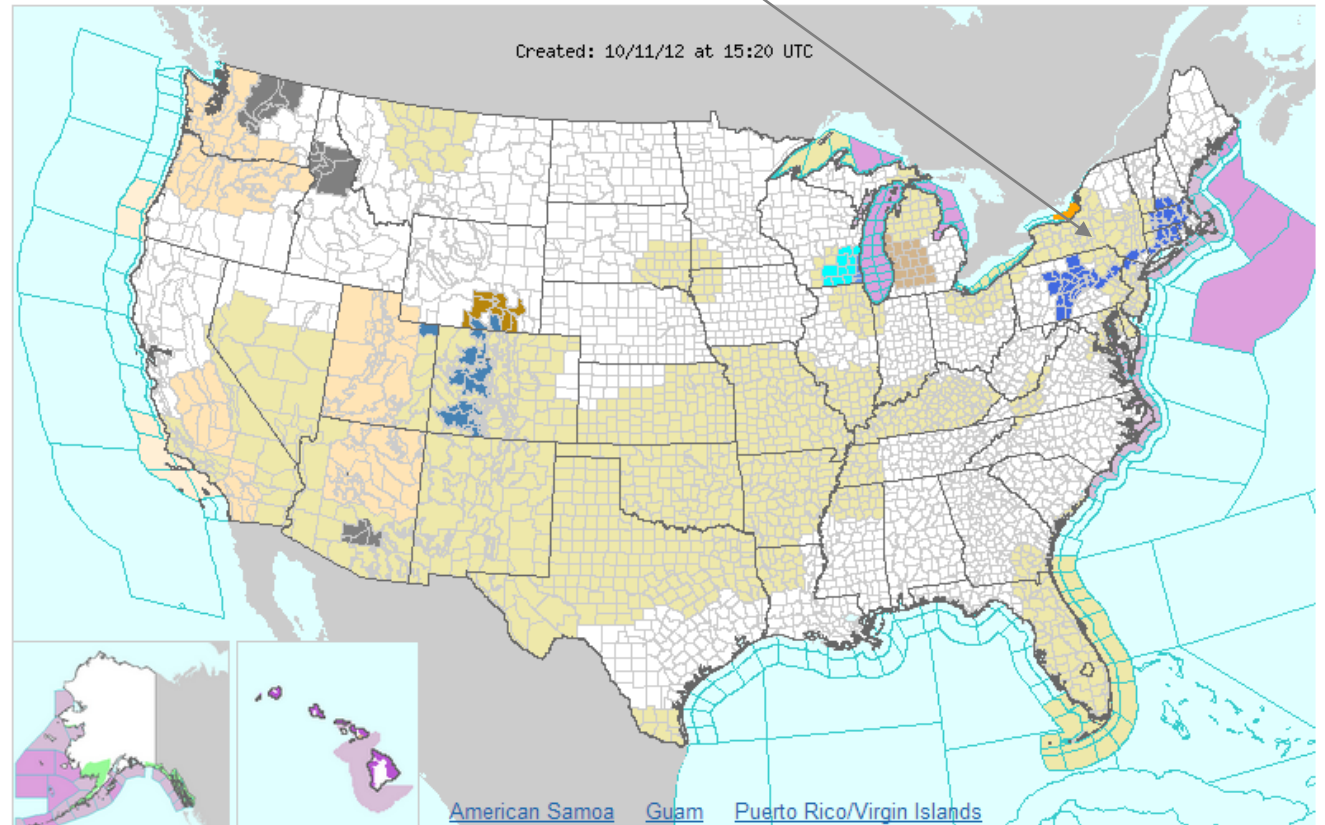
City, ST

Enter Your City, ST or ZIP Code

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- ACTIVE ALERTS
- FORECAST MAPS
- RADAR
- RIVERS, LAKES, RAINFALL
- AIR QUALITY
- SATELLITE
- PAST WEATHER



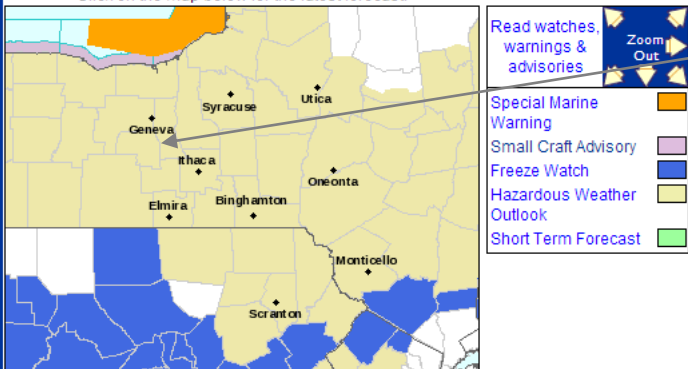
Top News - Past News

Rain/Snow Reports or Storm Reports

- Follow us on Twitter [«Read More»](#)
- Rainfall Amounts? [AHPs Precipitation Analysis](#)
- Weather Events [«Read More»](#)
- Latest SKYWARN training information: [«Read More»](#)

Click to view the **Hazardous Weather Outlook** Central NY and Northeast PA

Click on the map below for the latest forecast.



Last map update: Thu, Oct. 11, 2012 at 11:25:06 am EDT

[Interactive Forecasts](#)

[Report Severe Weather](#)

Weather Discussion: Lake effect showers will continue across oneida county, before lifting north out of the area midday. Another cold front will sweep through the region early on Friday, allowing cold Canadian high pressure to build in Friday night. A widespread freeze is expected Saturday morning.
[See Full Discussion](#)

[Text Forecasts](#)

[Hourly Weather Graph](#)

[Quick Forecast](#)

[Graphical Forecast Images](#)



Click Map for forecasts and watches, warnings, statements and advisories

Local forecast by "City, St" or Zip Code

City, St Go



Current Hazards
 Local Outlook
 National Outlooks
 Hurricanes
 EM Page
 eSpotter
 Storm Reports

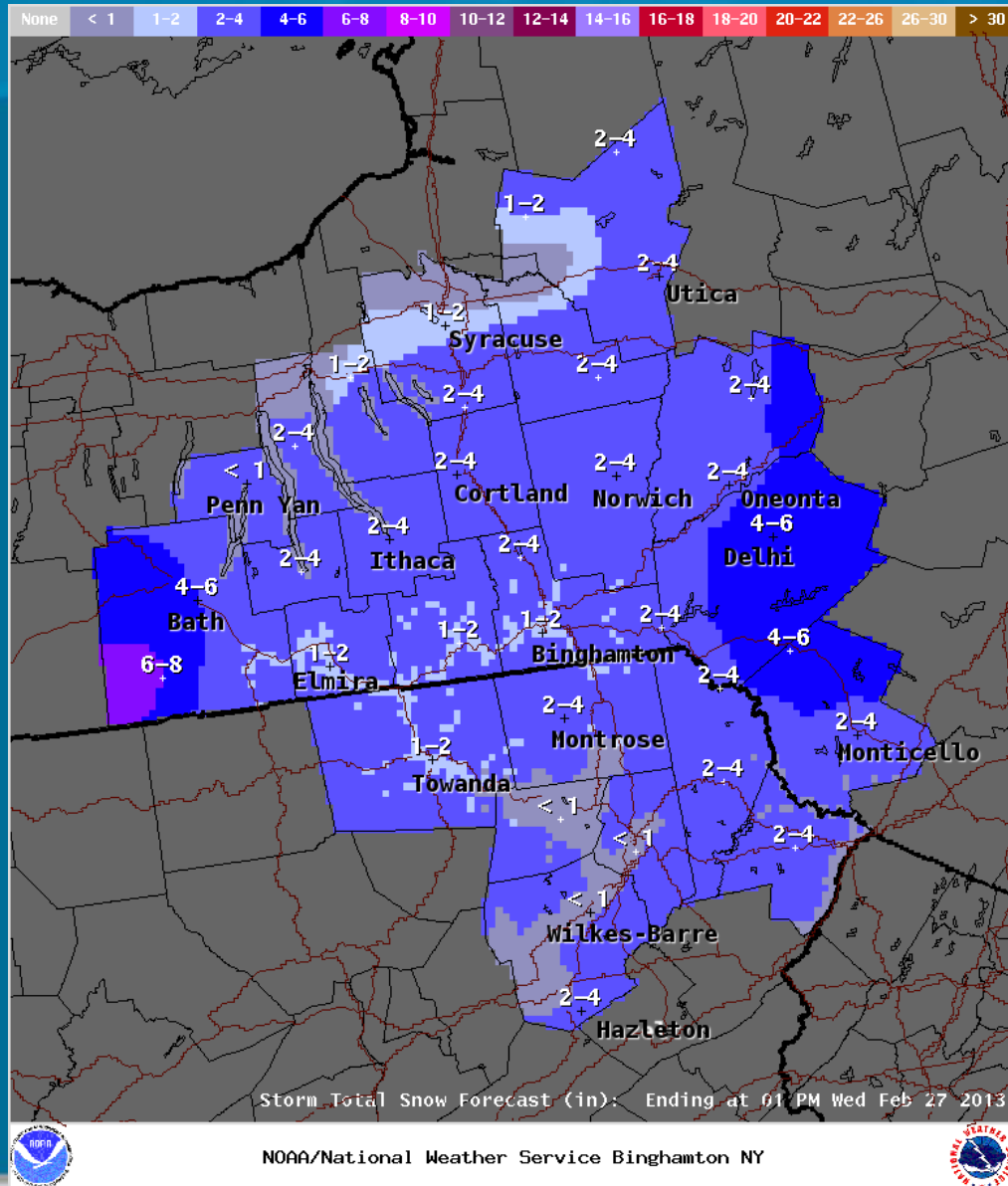
Current Conditions
 Snow/Rain Reports
 Rivers & Lakes
 AHPs
 Observations
 Satellite
 Text


Radar Imagery
 Local
 National


Forecasts
 Activity Planner
 Air Quality
 Aviation
 Fire
 Hydrology
 Marine
 Models
 Space Weather
 RSS/XML/Mobile
 Text

Climate
 Local
 National
 More...

Snowfall Forecasts on Website






Tyrone NY 




Outlook/Statement In Effect 
Updated 12:20 PM EDT

Current Conditions

Penn Yan Airport
Lat: 42.65 N Lon: -77.05 W Elev: 902 ft
Last Updated: Oct 11 2012 11:53:00

 Overcast 47°F	Wind Speed SW 12 MPH 
--	--

Quick Forecast
10:23 am EDT Oct 11
Periods 1-3 of 13 

This Afternoon 	Tonight 	Friday 
--	--	--

http://mobile.weather.gov

Full Forecast



Radar



Satellite



Forecast Discussion



Forecast Graphics



Rivers/Lakes



More Info

Tropical Weather



Marine/Tides



Astronomical Data



Tsunami



Tweet a #wxreport



Facebook

facebook

Search for people, places and things



US National Weather Service ... Home *



US National Weather Servic...

Timeline

Recent

Admin Panel

Promote Page



September 1st, 2013 Photo Contest Winner
Wendy Bandurski-Miller. Moravia, NY.



US National Weather Service
Binghamton NY

Update Page Info



24,786 likes · 875 talking about this · 116 were here

Government Organization

Facebook posts do not always reflect the most current information. For current official info, visit:
<http://www.erh.noaa.gov/bgm>



Photos



Likes



Events



Notes 2

See Your Ad Here

US National Weather Service Binghamton NY



Highlights

Twitter

The screenshot shows the Twitter profile for NWS Binghamton (@NWSBinghamton). The profile header includes the NWS logo, the name 'NWSBinghamton', and the handle '@NWSBinghamton'. A bio states: 'This is an experimental service to explore Twitter use to extend the reach of NWS information. Visit goo.gl/C9g6i for details and to provide comments.' The location is listed as 'Johnson City, NY' with a link to erh.noaa.gov/bgm/. The profile statistics are: 2,642 tweets, 107 following, and 1,916 followers. There is a 'Direct Messages' icon with a '2' notification and an 'Edit profile' button.

The left sidebar features the NWS logo and the text 'National Weather Service'. Below this is a description: 'The National Weather Service (NWS) 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. www.weather.gov'.

The main content area is divided into sections: 'Tweets', 'Following', 'Followers', 'Favorites', and 'Lists'. Below these are 'Photos and videos' showing several weather maps, and 'Who to follow' which lists three users: Jace Larson (@jacel...), Shawn Reynolds (@WCL_Shawn), and Ben Dublin (@bendublin).

The tweet feed shows three tweets from NWSBinghamton:

- 9h: Rain expected for some today, see the image for timing. No lightning is expected. pic.twitter.com/57aNGrQ1u [View photo](#)
- 9 Oct: BGM issues AREAS OF DENSE FOG THIS MORNING till 9:00 AM EDT nwschat.weather.gov/p.php?pid=2013... [Expand](#)
- 9 Oct: BGM continues Frost Advisory till 9:00 AM EDT nwschat.weather.gov/tec/#2013-O-C... [Expand](#)

Rockland County Local Weather Resources

Tune to local weather and emergency radio and television stations:
WHUD 100.7FM, WRCR 1300AM, or Rockland Information Station 1640 AM

On the web:

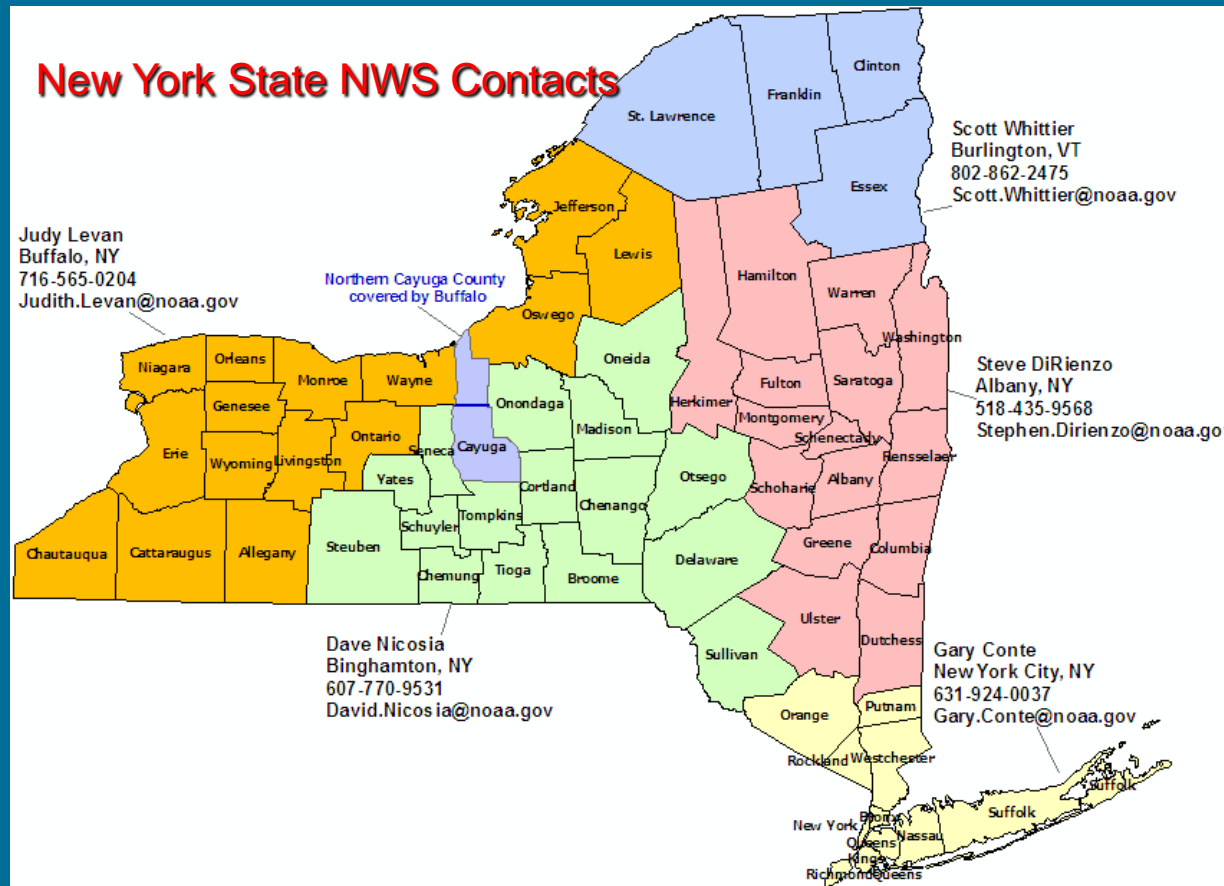
www.rocklandgov.com

www.facebook.com/RCFireandEmergency

www.twitter.com/rockofes

Share storm photos:

Rocklanddamages@gmail.com



More on Winter Weather Preparedness

<http://www.nws.noaa.gov/om/winter/index.shtml>