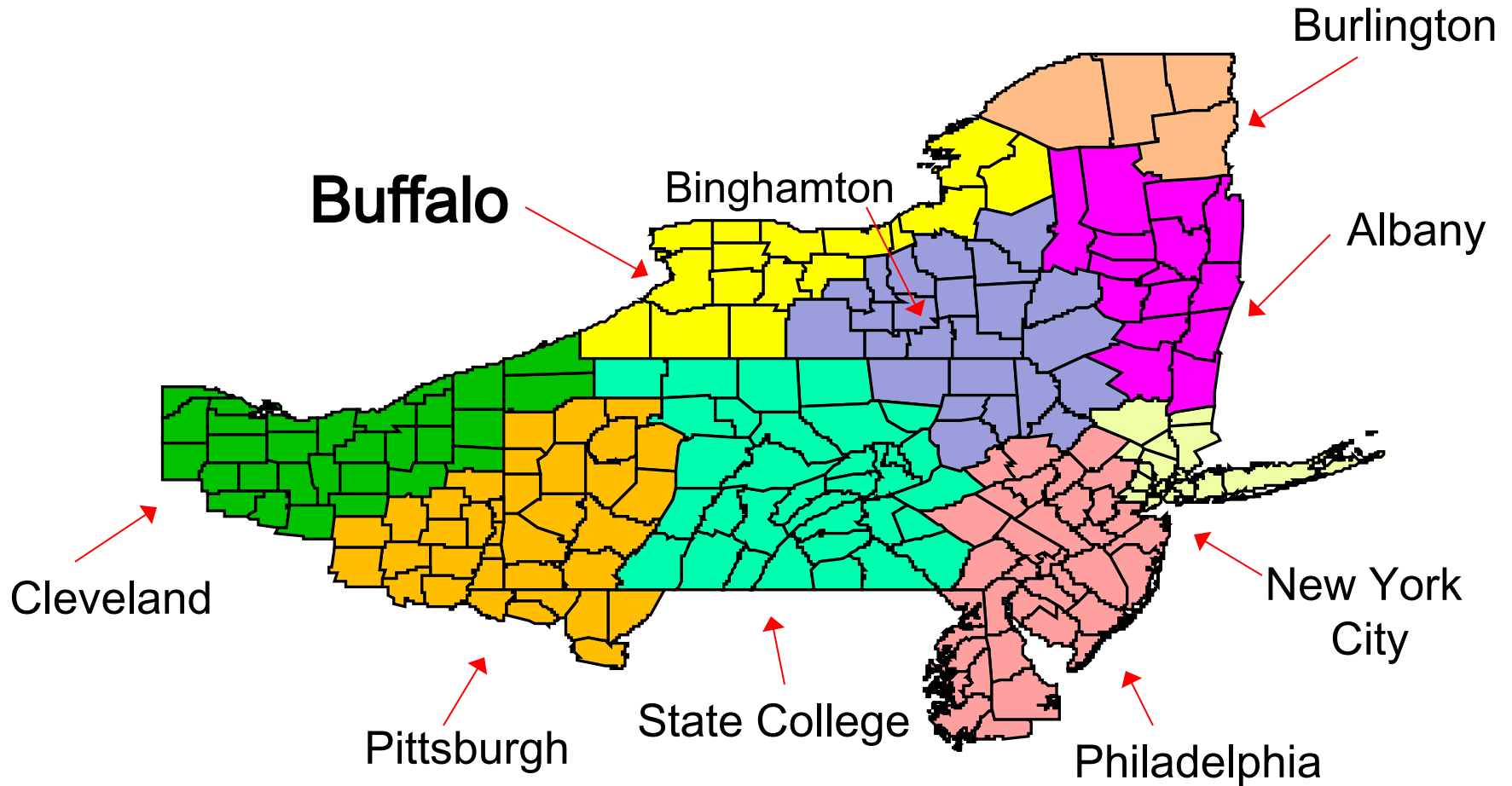




# National Weather Service Forecast Office Areas of Responsibility





# ***Communicating Risk Potential***

---

The National Weather Service uses a

**“Ready, Set, Go”** approach

Substituting the words

**“Outlook, Watch, and Warning”**

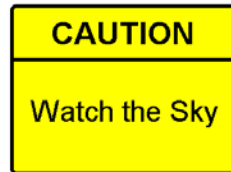


*This approach is based on the lead-time of the event and forecaster confidence.*

# WINTER WEATHER PRODUCTS



- WATCHES



- Issued when forecaster confidence in the event occurring is at 50% or greater
- Generally issued 12 to 48 hours in advance



- WARNINGS



- Hazardous winter weather is occurring or is imminent
- Forecaster confidence is at 80% or greater
- Warnings can be issued based on significant public impact events
- Generally issued 12 to 24 hours in advance



# Blizzard Warning

---

- Wind speeds of 35 mph or greater  
AND
- Visibility of  $\frac{1}{4}$  mile or less in blowing snow  
AND
- Conditions must persist for at least 3 hours
  
- Blizzards may or may not be accompanied by falling snow
  - When not accompanied by falling snow, it is referred to as a Ground Blizzard
  
- “Severe” blizzard
  - All of the above except temperatures below 20° F
  - Wind chills well below zero



# Ice Storm Warning

---

- Issued when 1/2 inch or more of ice accumulation is expected
- An Ice Storm Warning means that freezing rain is expected to be the dominant precipitation type



# Winter Storm Warning

---



- Issued when a combination of snow, sleet, and/or freezing rain are expected to reach warning criteria
- Issued for a general heavy snowfall of:
  - 7 inches in 12 hours
  - 9 inches in 24 hours



# Lake Effect Snow Warning

---



- Issued for a general heavy snowfall of:
  - 7 inches in 12 hours
  - 9 inches in 24 hours



- Lake effect snow warning implies the localized nature of the heavy snow
  - In most cases not everyone in a county will receive warning criteria snowfall

# Wind Chill Warning

---



- Issued for dangerously cold wind chills
  - Wind speeds generally 5 mph or greater
- Issued when wind chills are forecast to fall below  $-25^{\circ}$  F



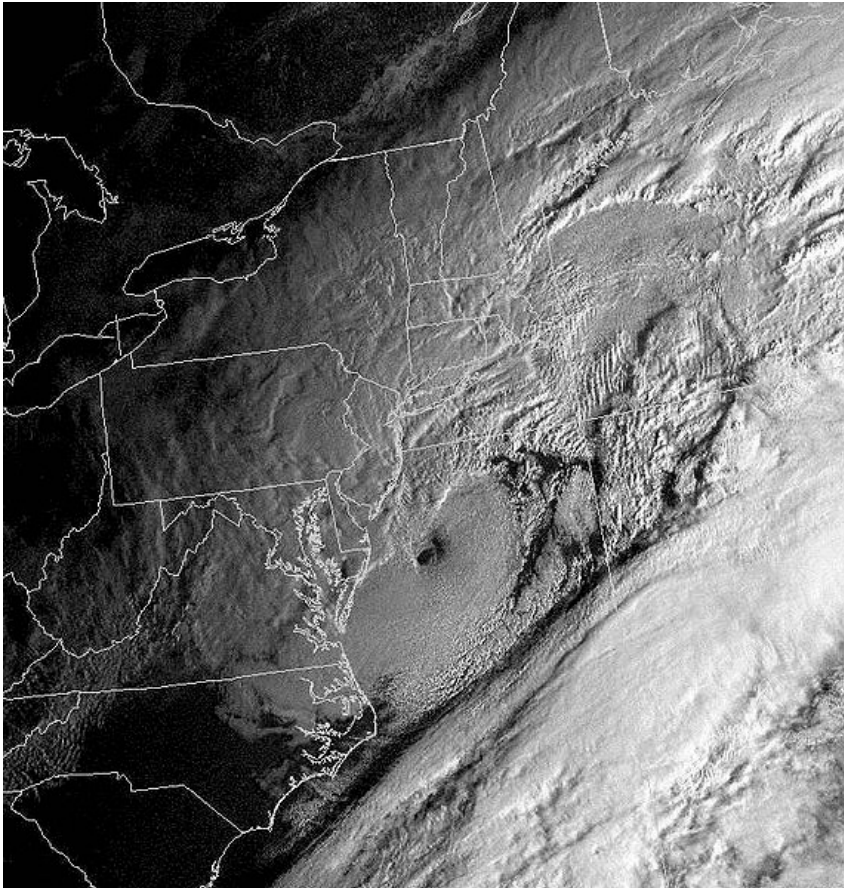






# Nor'easters

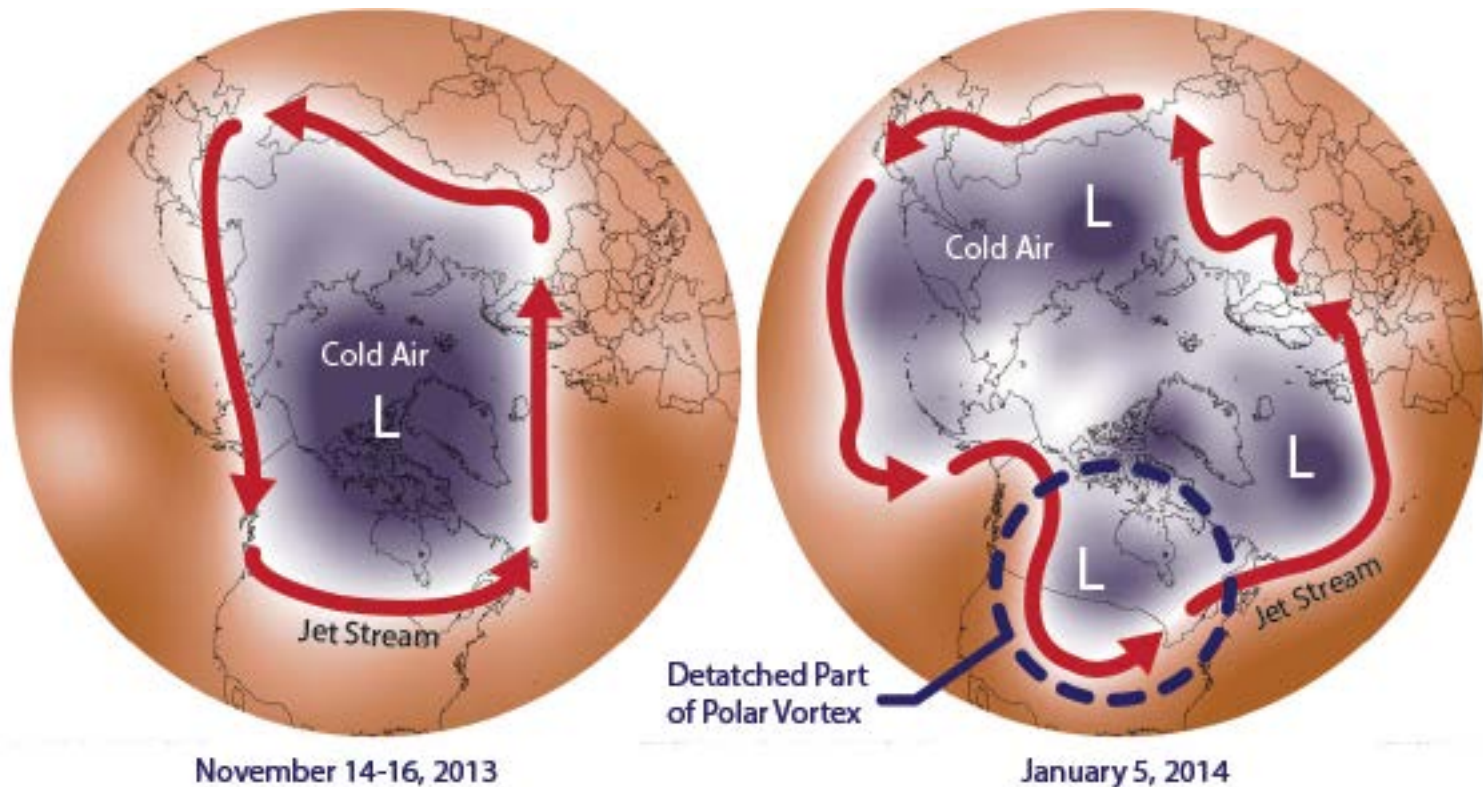
---



- Storm that moves north along the Atlantic Coast
- Northeast winds
- Genesee Valley west—generally just brushed by the storm
- Central/Eastern New York can get moderate to heavy snowfall
- Can be accompanied by very strong winds

# Polar Vortex

- From the "Glossary of Meteorology" published in **1959**:
  - "The large-scale cyclonic circulation in the middle and upper troposphere centered generally in the polar regions."



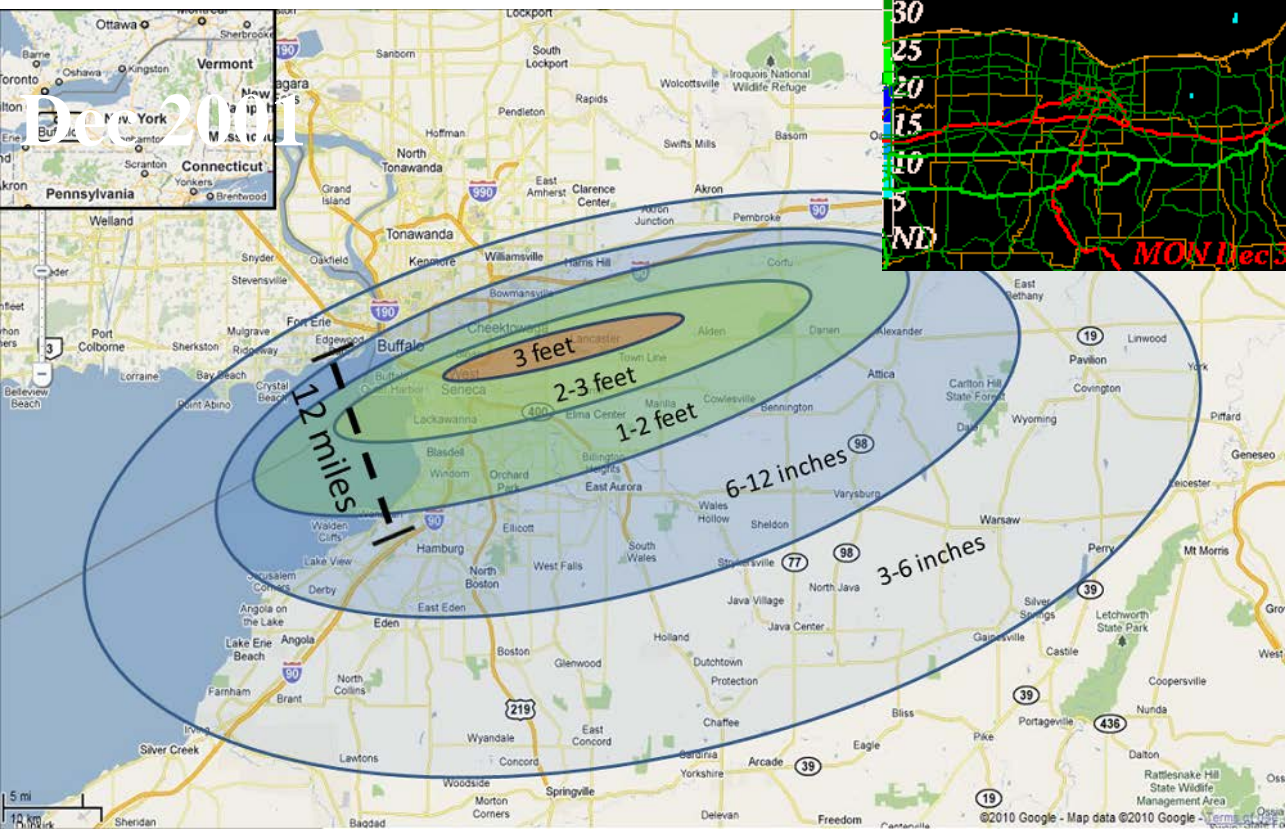
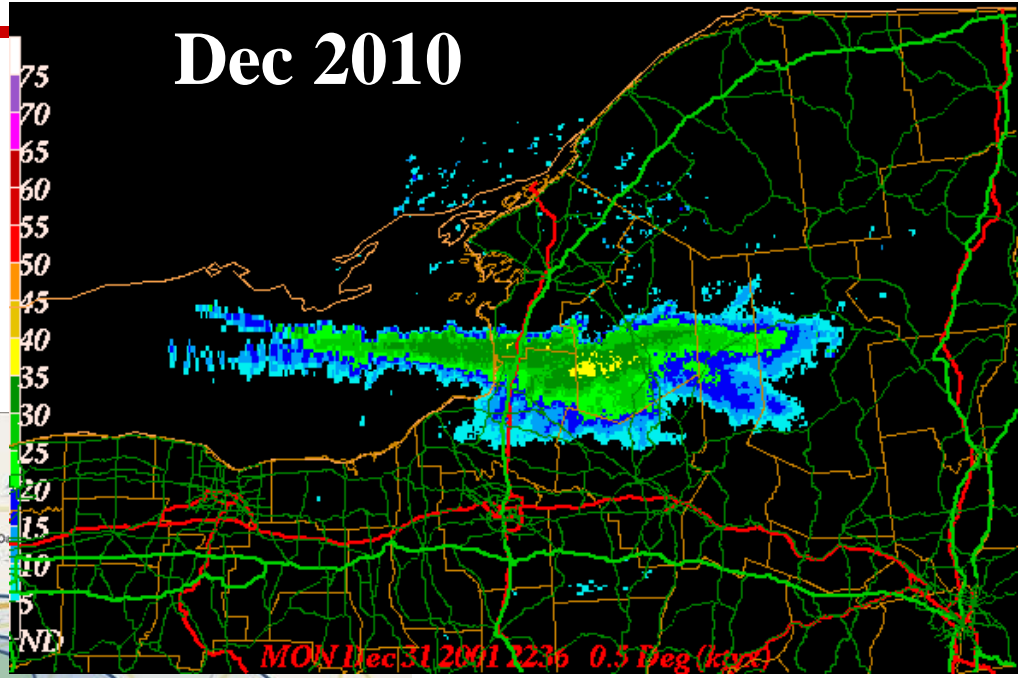
November 14-16, 2013

January 5, 2014



# Lake Effect Snow Highly Localized

Dec 2010





# Precipitation Types

---

- Snow – An aggregation of many ice crystals
- Freezing Rain – Rain falls as liquid and then freezes on contact
  - Objects become encased in ice
- Sleet – Rain drops freeze into ice pellets prior to reaching ground
  - Bounce when hitting the ground
- Graupel – Snowflakes which have been heavily rimed
  - Also called snow pellets, soft hail, and hominy snow
  - Looks like uncooked white grits

# Black Ice

---

- Can form due to freezing of existing water on the pavement
- Can also form due to moisture from fog or high humidity during the overnight and early morning hours
- Can be difficult to see, pavement may just appear wet









# Point and Click Forecast



## Current Conditions

[En Español](#)

[Share](#) | [f](#) [t](#) [e](#) [m](#)



Overcast  
**48°F**  
9°C

Humidity 77%  
Wind Speed N 16 mph  
Barometer 30.19 in (1022.8 mb)  
Dewpoint 41°F (5°C)  
Visibility 10.00 mi  
Wind Chill 42°F (6°C)

Last Update on 22 Oct 8:54 am EDT

Current conditions at  
**Greater Rochester International Airport (KROC)**

Lat: 43.12°N Lon: 77.67°W Elev: 600ft.










[More Local Wx](#) | [3 Day History](#) | [Mobile Weather](#)

## Stafford NY

7 Day Forecast

For More Weather Information:

[Buffalo, NY Local Forecast Office](#)

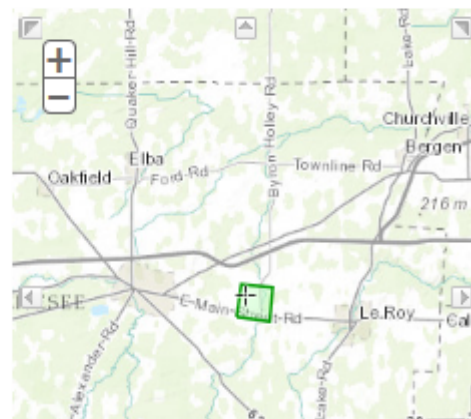
TODAY	TONIGHT	THURSDAY	THURSDAY NIGHT	FRIDAY	FRIDAY NIGHT	SATURDAY	SATURDAY NIGHT	SUNDAY
 30%	 30%	 40%	 60%	 40%		 40%		
Chance Rain High: 49 °F	Chance Showers Low: 42 °F	Chance Showers High: 51 °F	Showers Likely Low: 41 °F	Chance Showers High: 56 °F	Mostly Cloudy Low: 42 °F	Chance Showers High: 58 °F	Mostly Cloudy Low: 42 °F	Partly Sunny High: 53 °F

## Detailed Forecast

Today	A chance of rain or drizzle before noon, then a chance of showers, mainly between noon and 5pm. Mostly cloudy, with a high near 49. North wind 10 to 13 mph. Chance of precipitation is 30%. New precipitation amounts of less than a tenth of an inch possible.
Tonight	A chance of showers, mainly after 11pm. Mostly cloudy, with a low around 42. North wind around 9 mph. Chance of precipitation is 30%. New precipitation amounts of less than a tenth of an inch possible.
Thursday	A chance of showers. Cloudy, with a high near 51. North wind 11 to 15 mph. Chance of precipitation is 40%. New precipitation amounts of less than a tenth of an inch possible.
Thursday Night	Showers likely, mainly before 3am. Cloudy, with a low around 41. Northwest wind around 7 mph. Chance of precipitation is 80%. New precipitation amounts of less than a tenth of an inch possible.
Friday	A chance of showers, mainly before 4pm. Mostly cloudy, with a high near 56. West wind 9 to 14 mph. Chance of precipitation is 40%. New precipitation amounts of less than a tenth of an inch possible.

Topographic

[Click Map For Forecast](#)



# Hourly Forecast Graphs



Point Forecast: 2 Miles ESE Albany NY  
42.85N 73.78W (Elev. 197 ft)

Last Update: 3:01 pm EST Feb 16, 2016

## Hourly Weather Forecast Graph

[dashes/dots] | [b/w] | [hide menu]

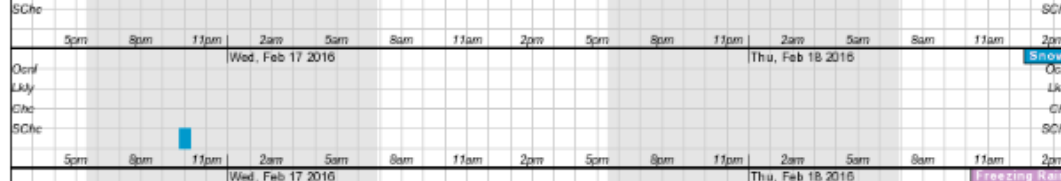
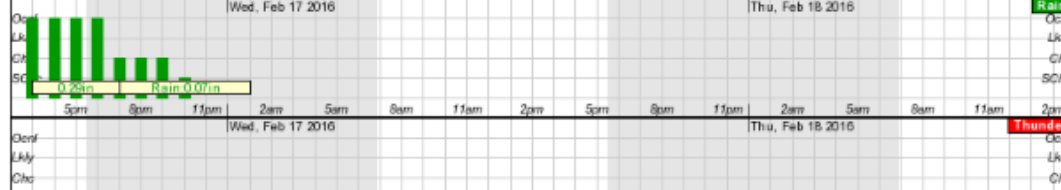
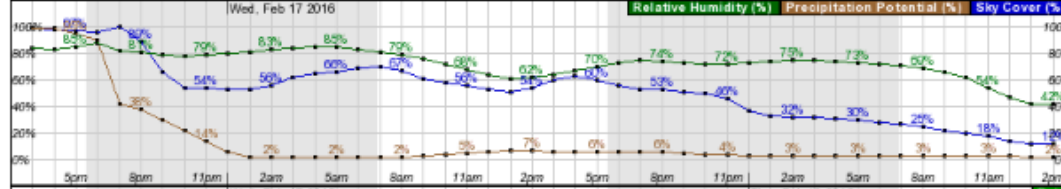
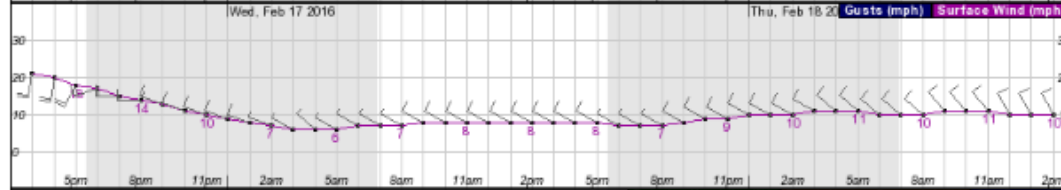
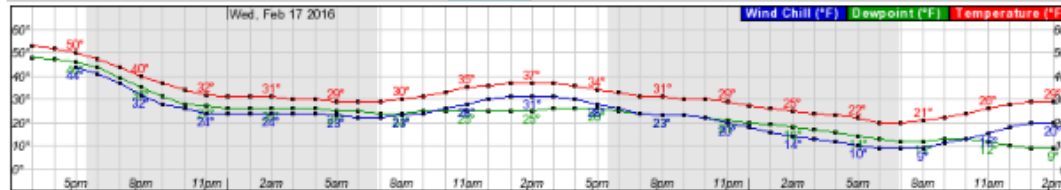
Weather Elements		Weather/Precipitation
<input checked="" type="checkbox"/> Temperature (°F)	<input checked="" type="checkbox"/> Surface Wind <span>mph</span> ▾	<input checked="" type="checkbox"/> Rain
<input checked="" type="checkbox"/> Dewpoint (°F)	<input checked="" type="checkbox"/> Sky Cover (%)	<input checked="" type="checkbox"/> Thunder
<input checked="" type="checkbox"/> Wind Chill (°F)	<input checked="" type="checkbox"/> Precipitation Potential (%)	<input checked="" type="checkbox"/> Snow
	<input checked="" type="checkbox"/> Relative Humidity (%)	<input checked="" type="checkbox"/> Freezing Rain
		<input checked="" type="checkbox"/> Sleet
		<input type="checkbox"/> Fog

48-Hour Period Starting: 3pm Tue, Feb 16 2016 ▾

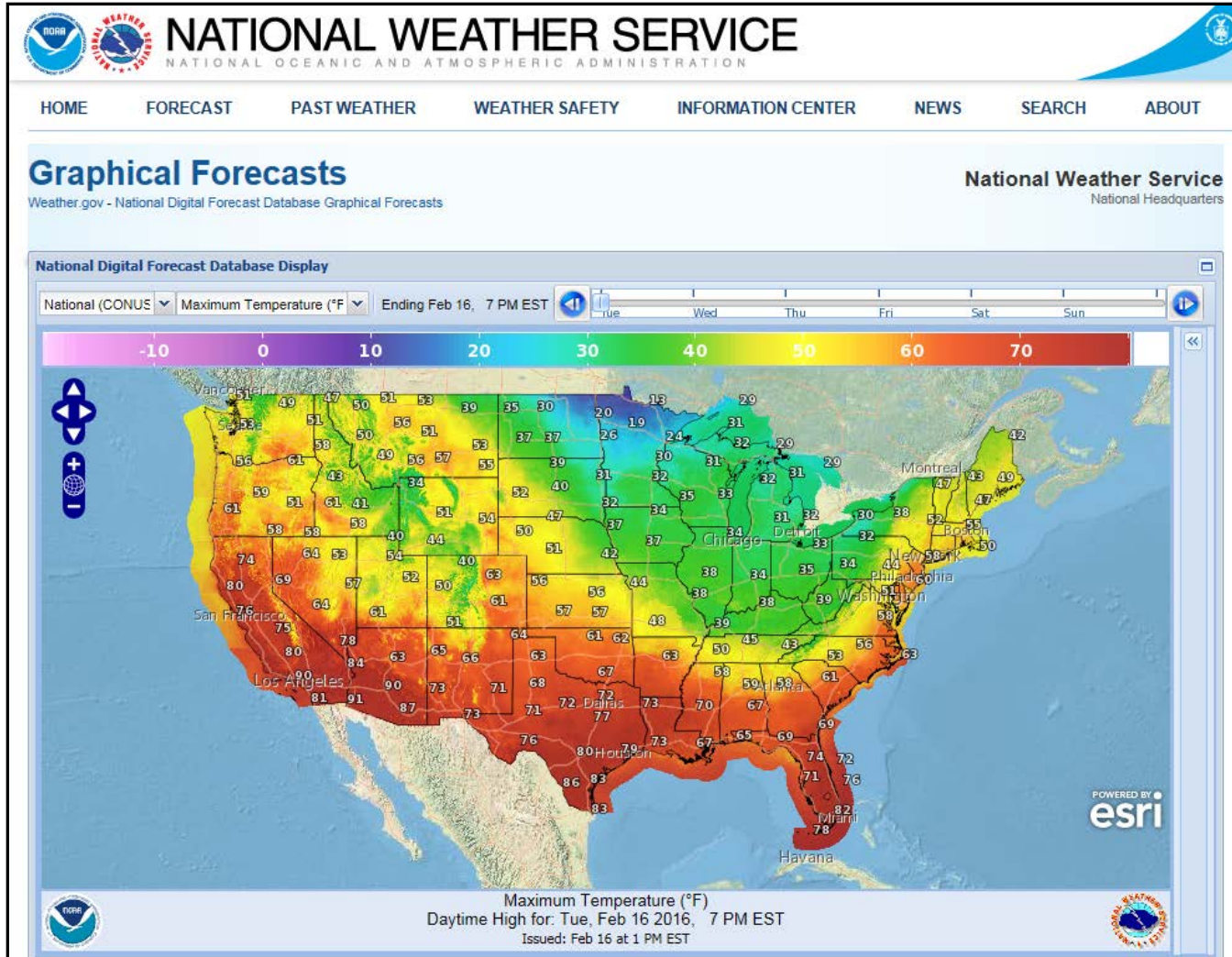
Submit

Back 2 Days

Forward 2 Days



# digital.weather.gov





<http://digital.weather.gov>

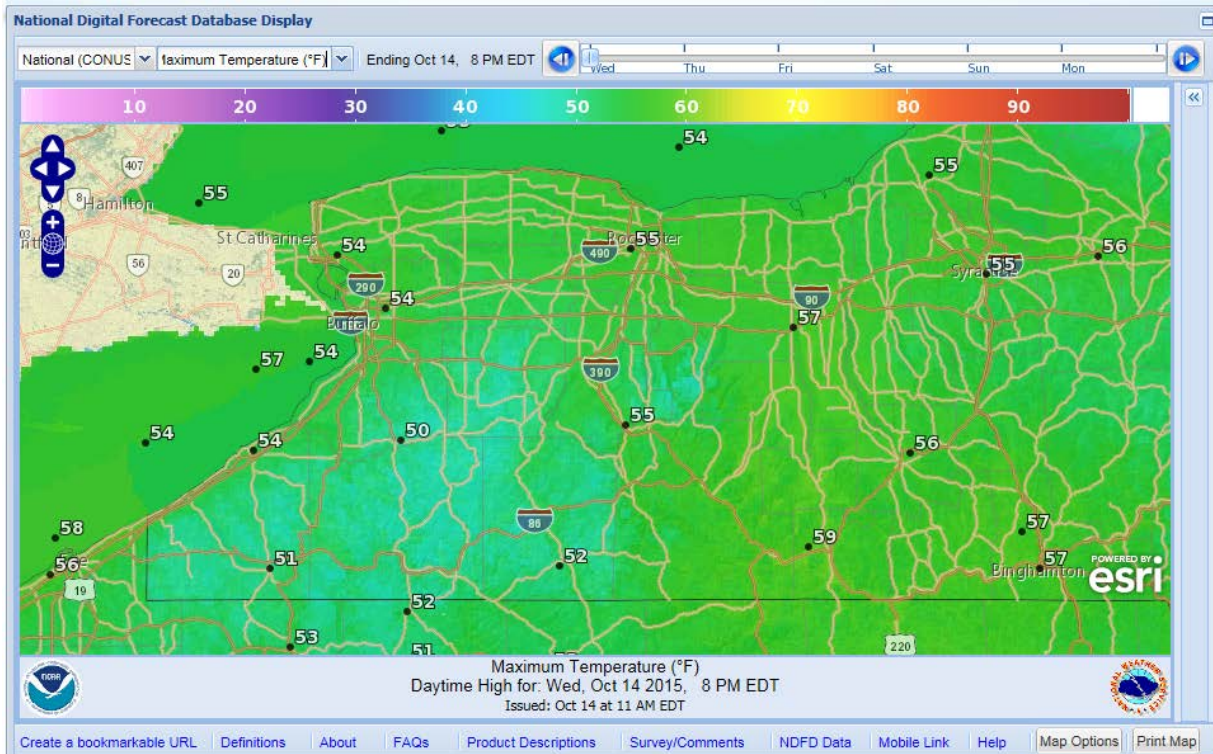
## Graphical Forecasts from NWS digital database Zoomable to Street Level

### Graphical Forecasts

Weather.gov - National Digital Forecast Database Graphical Forecasts

National Weather Service

National Headquarters



### Forecasts of:

- Temperature
- Wind
- Probability of Precipitation
- Hazards
- Precipitation Amounts – 6-hr and total
- Snow amounts – 6-hr and total

# http://preview.weather.gov/edd



The screenshot shows the NWS Enhanced Data Display v4.4 web application. The browser address bar displays "http://preview.weather.gov/edd". The page title is "NWS Enhanced Data Display v4.4" and it is described as "A Product of the Charleston, WV Weather Ready Nation Pilot Project". The current temperature is 26°F. The main content is a map of the Great Lakes region, showing Lake Superior, Lake Michigan, Lake Huron, Lake Erie, and Lake Ontario. The map includes various geographical features like mountains and rivers. Overlaid on the map are several data layers, including radar, satellite, hazards, and surface observations. The interface is labeled "Experimental" and has a "Quick Layers" panel on the left with options for Radar, Satellite, Hazards, Tropical, Rivers, Forecast, Observations, Upper Air, Model Spread, Webcams, and Outlooks. The "Background" is set to "ESRI Nat Geo". The "Mouse Click Control" panel shows "Public/Marine Forecast" selected. The bottom of the page has a navigation bar with "State Overlay", "Map Storm Reports", "Save/Share", "Like", and "1.9k" buttons. The status bar at the bottom right shows "Elevation: Loading...", "Lat: 45.84677, Lon: -75.18140", and "100%" zoom.

- Current Observations:
  - Radar, Satellite, Hazards, Surface Observations
- Forecasts:
  - Forecast Graphics
  - Hydrology