



# Snow Squall Warnings: An Overview

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# Why Worry About Snow Squalls?

There is a long history of deadly accidents associated with snow squalls.

Snow squalls can cause localized extreme impacts to the traveling public and to commerce for brief periods of time.

The rapid onset of whiteout conditions, combined with gusty winds and falling temperatures can cause extremely dangerous conditions for motorists.

Annual highway fatalities from these events can exceed fatalities from tornadoes and floods combined for portions of the U.S.



Capital Weather Gang

**Heavy snow squall 'like a wall' causes car pileup on I-93 in New Hampshire**



WOW





# What Is A Snow Squall?

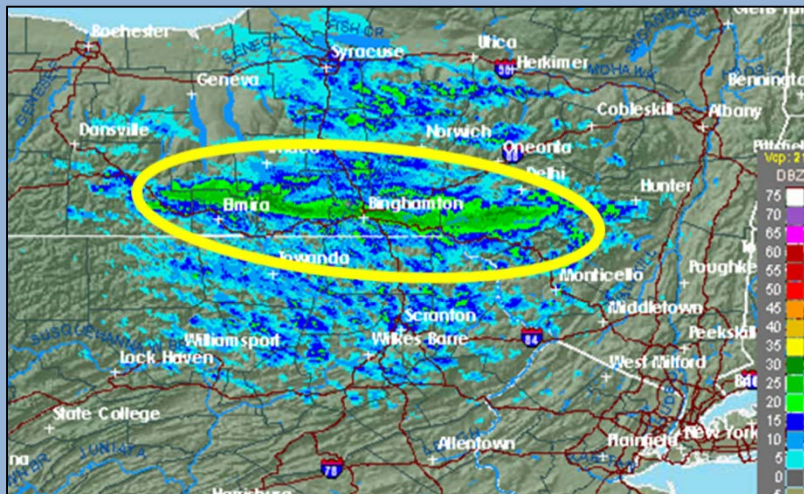


- Intense short-lived burst of heavy snowfall (15 minutes or more).
- Quick reduction in visibilities (typically less than  $\frac{1}{4}$  mile) and is often accompanied by gusty winds in excess of 30 mph.
- Similar to blizzard conditions, but localized and shorter in duration.
- Quick snow accumulations in excess of 0.5 inch possible over very short time durations.

Before A Snow Squall Hits



After A Snow Squall Hits





# Other Snow Squall Features

- Typically occur during the daytime hours.
- Often causes chain-reaction accidents resulting in injuries and deaths.
- Can be accompanied by flash-freeze road conditions.
- Speed and volume of traffic a factor:
  - Pile-ups more likely with vehicles traveling at higher speeds.
  - Less traffic volume at night limits potential accidents vs. daytime.





# Snow Squall Warning Facts



Implemented on January 16, 2018

\*So far, none have been issued for southeast Michigan



“Short-fused” in nature



Issued for smaller geographic areas for up to 60 minutes

\*Across 1-3 county area



Lead time will generally be 20 to 30 minutes or longer

\*Typically issued between 5am – 11pm



Issued by WarnGen in a Polygon Format

maroon/burgundy color



Similar in format to Severe Thunderstorm Warnings



# Special Considerations



Snow squalls are a unique hazard for motorists, especially on highways and interstates, and during higher traffic volumes.



- Available on NOAA Weather Radio
- Currently, not available on EAS. However, SE MI broadcasters encouraged to treat as a “base” Severe T-Storm Warning (60 mph winds)
- WEA (cell phones) after May 2019

- Lean toward a Special Weather Statement in most situations between 11pm – 5am.
- Discretion made based on traffic, highways impacted, etc.

- How Snow Squall Warnings are treated with other winter weather hazards in effect...
  - Not issued if a Winter Storm Warning is in effect
  - If conditions warrant, may be issued if a Winter Weather Advisory is in effect





# Snow Squall Warning Example



## Webpage

**NWS Forecast Office Binghamton, NY**  
[Weather.gov](http://Weather.gov) > Binghamton, NY

Current Hazards   Current Conditions   Radar   Forecasts   Rivers and Lakes   Climate and Past Weather

Click a location below for detailed forecast.

Last Map Update: Fri, Feb. 2, 2018 at 10:36:07 am EST

## Point and Click Webpage

**Hazardous Weather Conditions**

- Snow Squall Warning in effect from February 2, 09:50 AM EST until February 2, 10:45 AM EST

En Español   Share   Facebook   Twitter   YouTube   RSS

Current conditions at  
**Cortland County-Chase Field (KN03)**  
 Lat: 42.59°N Lon: 76.21°W Elev: 1190ft.

Light Snow  
**14°F**  
 -10°C

Humidity 79%  
 Wind Speed NW 7 G 21 mph  
 Barometer 30.06 in  
 Dewpoint 9°F (-13°C)  
 Visibility 2.50 mi  
 Wind Chill 4°F (-16°C)  
 Last update 2 Feb 10:15 am EST

More Information:  
[Local Forecast Office](#)  
[More Local Wx](#)  
[3 Day History](#)  
[Mobile Weather](#)  
[Hourly Weather Forecast](#)

## Text Product

**BULLETIN — EAS ACTIVATION REQUESTED**  
 Snow Squall Warning  
 National Weather Service Binghamton NY  
 339 PM EST Sat Feb 13 2016

NYC007-023-107-109-132115-  
 /O.NEW.KBGM.SQ.W.0001.160813T2039Z-160813T2115Z/  
 Cortland NY-Broome NY-Tompkins NY-Tioga NY-  
 339 PM EST Sat Feb 13 2016

The National Weather Service in Binghamton has issued a

- \* Snow Squall Warning For...
- Southern Cortland County in Central New York...
- Northwestern Broome County in Central New York...
- Southeastern Tompkins County in Central New York...
- Northern Tioga County in Central New York...
- \* Until 415 PM EST

\* At 338 PM EST, a dangerous snow squall was located over South Danby or 12 miles south of Ithaca, moving northeast at 50 mph.

**HAZARD...**White-out conditions in heavy snow and blowing snow.

**SOURCE...**Radar indicated and webcams.

**IMPACT...**Dangerous...life-threatening travel.

\* The dangerous snow squall will be near...

Caroline and Slaterville Springs around 350 PM EST.  
 Berkshire, Richford and Harford around 355 PM EST.  
 Whitney Point and Lisle around 405 PM EST.  
 Marathon around 410 PM EST.  
 Willet and East Freetown around 415 PM EST.

**PRECAUTIONARY/PREPAREDNESS ACTIONS...**

Conditions will deteriorate rapidly with near zero visibilities in snow and blowing snow. Travel will become impossible. You should wait until the squall passes before traveling or find a safe place to wait out the squall away from any road or highway indoors if traveling.

&&

LAT...LON 4260 7600 4242 7586 4235 7585 4214 7645  
 4225 7654 4228 7654 4228 7656 4230 7658  
 TIME...MOT...LOC 2038Z 240DEG 42KT 4227 7643  
 \$\$

- Text product will list important highways and mile markers

## Social Media (Twitter)

**Snow Squall Warning**

Valid Until  
 11:15 AM EST Wednesday  
 January 30, 2019

**Threat Information**

**Hazard**  
 White out conditions in heavy blowing snow

**Impact**  
 Dangerous life-threatening travel

**Potential Exposure**  
 Population: 1,816,674  
 Highways: I-283  
 I-70  
 I-180



# Snow Squall Preparedness Tips

- **Remain alert to the latest forecast and travel conditions. Consider avoiding or delaying travel until the snow squall passes your location.**
- **Leave extra time if you must travel during snow squalls.**
- **Reduce your speed and turn on headlights!**
- **Don't slam on brakes!**





# Ways To Receive Snow Squall Warnings

- NOAA Weather Radio
- Website: <http://weather.gov>
- Mobile: <http://mobile.weather.gov>
- iNWS: <https://inws.ncep.noaa.gov> (Public Safety Officials only)
- NWSChat: <https://nwschat.weather.gov>
- Twitter
- Other local and state dissemination systems
- State DOT Variable Message Signs (VMS) in some areas
- Future: Emergency Alert System (EAS)
- Future: Cell Phone Wireless Emergency Alerts (WEA)



Questions?