

Public Information Statement
National Weather Service Albany NY
800 AM EDT Thu April 24 2025

...Severe Weather Awareness Week Continues...

Today we take an in depth look at tornadoes.

Tornadoes are violently rotating columns of air in contact with the ground and attached to the cloud above. The strongest tornadoes have wind speeds in excess of 200 mph, widths approaching one mile, lengths of many miles, and durations of up to one hour. Fortunately, most tornadoes are considerably weaker and of shorter duration. Tornadoes typically move at about 30 mph, but this can vary greatly depending on the storm environment.

The northeast U.S. averages about seventeen tornadoes per year. However, last year there were 32 tornadoes in New York alone. Tornadoes have occurred in New York and New England during every season but are most common from May through August. Tornadoes can strike anywhere, valleys and mountains, cities, and rural areas. Tornadoes are most common in the afternoon and evening, but occur at all hours.

In New York and New England, about 77 percent of all tornadoes are weak, 21 percent strong, and only about two percent are considered violent. Tornado Damage is rated on the EF-scale. The weakest tornadoes are EF-0 while the Strongest are EF-5. The strongest tornadoes recorded in the Albany Forecast Area since 1950 have been rated EF-4, which are violent, and caused considerable damage and loss of life.

Tornadoes form in a favorable environment which includes winds changing direction and speed with height that produce a horizontal spinning in the atmosphere. Strong upward motions in thunderstorms tilt the horizontal rotation to the vertical. An area of rotation called the mesocyclone develops through much of the thunderstorm. Most tornadoes form in the mesocyclone.

More information about tornado science and research can be found at:

<https://www.nssl.noaa.gov/research/tornadoes/>

The National Weather Service (NWS) issues tornado watches and warnings to alert the public to a tornado threat. A tornado watch means tornadoes are possible. Continue with your daily routine, but be ready to take quick action should a tornado warning be issued. A tornado warning means that tornadoes are imminent or occurring. Seek shelter immediately, in a basement if possible.

NWS tornado warnings are issued for small geographic areas taking into account thunderstorm size and motion. If you receive a tornado warning, you are likely very close to a tornado. NWS tornado warnings have a duration of 45 minutes or less. Your time sheltering during a tornado

warning will be less than 45 minutes.

You should prepare for tornadoes. Develop a severe weather safety plan. Identify safe shelters where you can go should a tornado threaten. Know the basic weather safety terms. Keep tuned to your favorite media outlet for the latest national weather service statements concerning tornadoes. Make sure your wireless phone is charged or keep a portable battery pack.

NOAA Weather Radio offers one way to receive immediate relay of tornado warnings. Many local television and radio stations also broadcast weather alerts. Computers and wireless devices can receive warnings. National Weather Service tornado warnings are relayed as wireless emergency alerts to cellular devices by FEMA.

For more information on Severe Weather Awareness Week, go to our Web site www.weather.gov/albany.

Tomorrow we will look at flash floods.

NWS Albany