

Stormbuster

NATIONAL WEATHER SERVICE ALBANY, NY



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Meet a Meteorologist

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Welcome to “Meet a Meteorologist!” This is where you will get to know fun facts about one of our Meteorologists. In this edition, we introduce our newest Meteorologist, Andrei Evbuoma, who comes to us from Chicago, IL.

When did you first become interested in Meteorology?

My love for Meteorology began at the age of 4. Like many, I was interested in storms, but it was the wind that drove me. I was absolutely captivated by the wind and how it swayed/bent the trees back. As a kid, on days that were breezy, I would go in our backyard, take a branch off the tree and hold it up in the air and act like I was a part of nature for hours on in. My cousins and neighborhood friends didn’t understand what I was doing, but my parents and other adults knew that my interest in weather was a gift and calling from God.

Anytime we had thunderstorms or winter storms, I would always observe them through the window.

Where did you go to college and where did you work before the NWS at Albany?

I attended Northern Illinois University where I received my Bachelor of Science degree in Meteorology and Climatology, as well as a GIS certificate. Thereafter, I earned my Master of Science degree in Environmental Science & Policy with a focus on climate, energy, and risk management from The Johns Hopkins University. I also did some doctoral studies in atmospheric science at Howard University and the University of Maryland, where I was a NOAA/NASA Fellow.

Prior to joining the federal government, I spent the first 14 years (one-third) of my career in the business world. During this time period, I had the blessing of establishing many life-long relationships while garnering experiences from various sectors within the private sector such as the transportation supply chain and logistics industry, broadcast journalism/media industry, energy, agriculture, and the financial commodity market world. Most of my experience comes from the latter three sectors listed.

What do you enjoy most about coming to NY?

Outside of the scenic terrain, which I didn’t know about prior to coming here, I like the fact that Albany is surrounded by many other cities such as NYC, Boston, and Montreal. I look forward to visiting various places and exploring activities, with my fiancée, within Albany.

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What will you miss the most about Chicago, IL?

I will miss our family, friends, and some of the food including Chicago's deep-dish pizza and the 49er flapjacks from the Original House of Pancakes.

What aspect of weather do you enjoy the most? Any favorite storms or historical weather events?

I like all modes of weather including hurricanes, tornadoes, and winter storms. The amount of energy and force they come with amazes me. However, my favorite aspect of the weather is the wind, whether it's just a nice, breezy, and dry day out or whether it's generated through a storm.

Growing up in the Midwest and having spent some time on the East Coast, there are many storms and historical weather events that I remember down through the years. Here's a list of eight storms/events that stand out to me the most: 1) The F5 Plainfield, IL Tornado of 1990, 2) The Chicago Heat Wave of 1995, 3) The New Year's Blizzard of 1999, 4) The Groundhog Day Blizzard of 2011 (Snowpocalypse), 5) The Washington D.C. Derecho of 2012, 6) The Arctic Outbreak "Polar Vortex" of 2014, 7) The Super Bowl Blizzard of 2015, and 8) The Super El Nino of 2015-2016.

Do you have any hobbies? What do you like to do in your spare time?

My fiancée and I enjoy traveling, catching up with family and friends, reading, gaming, going to museums, book stores/libraries, festivals, musicals, plays, movies, various restaurants, and sporting events.

What are you most excited about working for the National Weather Service?

NOAA National Weather Service is a premier agency within the weather enterprise. It's the most popular, trusted, and reliable source for all weather information and employs some of the best weather and climate scientists in the world. Being apart of such a great agency is rewarding in itself.

Additionally, I really enjoy supporting and making a difference in the lives of people outside of the office such as the general public, emergency managers, decision makers, other government offices, the media, and the academic community through daily weather briefings about the weather and how it may impact them. It shows just how valuable our job is and how many people depend on our work. Lastly, I look forward to developing many life-long friendships within the agency.

- Andrei Evbuoma, Meteorologist

25th Anniversary of the Great Barrington Tornado

May 29, 2020 marked the 25th anniversary of the devastating F-4 Great Barrington Tornado that struck the Berkshires on Memorial Day, May 29, 1995. This tornado resulted in three lives lost, 24 injuries and an estimated \$25 million in damage. It ranks as only one of four EF-3 or stronger (1) tornadoes in the last 40 years to occur in the NWS Albany County Warning Area. It is the strongest tornado in the state of Massachusetts since the deadly Worcester tornado of June 9, 1953.

The Great Barrington tornado was spawned out of a cluster of severe thunderstorms that initially pushed through the eastern Catskills during the late afternoon hours of May 29, 1995. As one cluster passed over the Hudson River, it rapidly intensified due to an increase in available moisture, wind shear and interactions with outflow boundaries from neighboring storms. The National Weather Service in Albany issued the first tornado warning on a supercell within these clusters as it traveled through Columbia and Berkshire Counties. The first tornado, rated as an F-2, touched down in Hudson, NY and produced a 15 mile path of damage which injured 5 people. (2) The supercell then traveled towards Great Barrington, and after likely encountering enhanced wind shear in the Housatonic River Valley, spawned the F-4 tornado. (3)

The following is an excerpt from the official NWS Storm Event Database (4) that describes the Great Barrington tornado and its impacts to residents and structures in its path. The tornado first touched down 1 mile southeast of North Egremont, MA near Prospect Lake at 7:06 PM, moved in an easterly direction at about 40 mph, crossing into Great Barrington and then Monterey. The last damage occurred near Morley Hill in Sandisfield at 7:24 PM.

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Officially, the track extended from one mile southeast of north Egremont to one and one-half miles southwest of West Otis. Three people were killed when the automobile they were in was lifted several hundred feet in the air and then dropped into a wooded hillside. Twenty-four people were injured. Many of the injuries were from flying glass. One motorist was very lucky when the tremendous force of the wind drove a large wooden timber through the door and front seat of his van, escaping with only a hip injury. A nursing home lost its roof and buildings at the local fairgrounds were destroyed. A gas station was destroyed. A truck smashed into a supermarket causing a large hole in the building. Many roads were blocked for more than 24 hours by numerous fallen trees. Debris was carried more than 45 miles to the northeast to Belchertown in eastern Hampshire County, where a racing ticket from the fairgrounds was found along with white, corrugated plastic roofing material.

For a video of the damage, [view this video](#) courtesy of NBC Connecticut.

1. The [Fujita tornado rating scale](#) was revised in February 2007 to the [Enhanced Fujita scale](#).
2. Official NWS Storm Event Database on the Hudson, NY tornado can be found [here](#).
3. Reference: Bosart, Lance F. (2006) "Supercell Tornadogenesis over Complex Terrain: The Great Barrington, Massachusetts, Tornado on 29 May 1995"
4. Official NWS Storm Event Database Publication on the Great Barrington tornado can be found [here](#).



Figure 1: Damage at the Fairgrounds in Great Barrington (Courtesy of NWS Boston).



NWS Albany Spring 2020 Partners Meeting

Enhancing relationships with our partners is vital to the success of the National Weather Service and our Weather-Ready Nation initiative. Our partners not only rely on information back to us, many of them are also key decision makers for their townships, counties or regions. This is why it was decided to hold a partners meeting virtually, so that we could interface with each other and discuss important changes to our products and services.

The webinar was held during the morning of June 3rd, 2020, by utilizing GoToMeeting technology. Sixty partners were in attendance, along with several NWS Albany employees. Topics ranged from IDSS to spring weather hazards, such as flooding and severe weather. We started our meeting by recognizing all of our partners and organizations with an interactive slide presentation. This was followed by a review of the Halloween 2019 flood event that was given by our Senior Service Hydrologist (SSH), Britt Westergard, where portions of the southern Adirondacks were significantly impacted. Our SSH then gave an overview of the changes made to the Impact-based warning methodology for flood warnings. Next up was Mike Evans, our Science and Operations Office (SOO), reviewing the August 21st 2019 severe weather outbreak where three tornadoes occurred across the Albany County Warning Area. After a short break, one of our Lead Meteorologists, Brian Montgomery, highlighted IDSS and how we (at the NWS Albany) can support our partners with remote services during the pandemic. Steve DiRienzo, the Warning Coordination Meteorologist (WCM) then went over the changes to the tropical program. Finally, Christina Speciale, Meteorologist, discussed the 2020 Hurricane Outlook. Throughout these presentations, questions and discussion were taking place through the chat function of the webinar. Jennifer Vogt, Meteorologist and Coordinator for this meeting, wrapped things up, thanking everyone for attending.

We would like to extend a big thank you to all of our partners for your continued support and we look forward to continuing our relationships for many more years to come.



- Jennifer Vogt, Meteorologist

Two May 2020 Tornadoes in Eastern New York

(source(s): NOAA/NCEI Storm Data and NWS at Albany Public Information Statements)

The National Weather Service (NWS) at Albany forecast area includes east-central New York (NY) and western New England (southern Vermont, the Berkshires of western Massachusetts, and Litchfield County in northwest Connecticut). There were 2 tornadoes that occurred in eastern NY this past May. One occurred in Saratoga County on May 15th and the other occurred in Warren County on May 29th. Both of the tornadoes were rated EF-1's from the NWS at Albany damage surveys.

The Albany forecast area averages two to three tornado events each year based on a tornado climatology mean period from 1950-2010. The majority of the tornadoes in the NWS at Albany forecast area are EF-0 or EF-1 (80-85%). The operational Enhanced Fujita Scale is a set of wind estimates based on degree of damage. This tornadic damage scale was modified from the old Fujita Scale by a team of meteorologists and engineers, and was implemented on February 1, 2007. The EF scale ranges from 0 to 5, and has estimated 3-second wind gust ranges in miles per hour (mph). An EF-0 has winds of 65-85 mph, and an EF-1 has winds of 86-110 mph. An EF-2 has estimated 3-second wind gusts of 111-135 mph.

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Estimates of the damaging gusts are based on the subjective judgment of the survey team on 8 levels of damage to 28 structural and vegetative indicators. More information on the EF Scale, and the transition from the old Fujita Scale, can be found at the following website: <https://www.spc.noaa.gov/efscale/>.

One brief tornado occurred on May 15, 2020 ahead of a strong cold front and an upper level disturbance. A squall line or quasi-linear convective segment produced around 150 wind damage reports across eastern NY and western New England during the afternoon into the early evening. One thunderstorm in the line proceeded to produce extensive wind damage from just north of the Mohawk Valley in central Herkimer County and advanced quickly into the Lake George northern Saratoga Region, Washington County and eventually southern Vermont. A macroburst was confirmed by an NWS at Albany storm survey team in and near the towns of Russia, Norway and Ohio in Herkimer County with estimated winds of 80-100 mph with a path length of 25 miles and a width of 10 miles. Numerous hardwood trees were uprooted or snapped a third to half way up. The debris path of damage was uniform all pointing in an east to north-east direction. Also, notably a campground trailer that was not anchored was flipped over and blown several feet at the Adirondack Campground. Macroburst winds are powerful downdrafts reaching the surface from a thunderstorm impacting an area greater than 2.5 miles. They sometimes produce damage and winds similar to a tornado, and in this case the macroburst was similar to an EF-1. The first tornado of the season touched down in Wilton, Saratoga County at approximately 5:59 p.m. EDT and lasted 2 minutes until 6:01 p.m. EDT. The NWS at Albany survey team confirmed an EF-1 tornado with estimated peak winds of 85 to 90 mph. It was a brief touchdown near the intersection of Nichols Rd and Woodard Rd and moved east for close to two miles before weakening and lifting at the street intersection of Wilton-Gansevoort Rd and Blanchard Rd. The tornado was the 11th to occur in Saratoga County, since 1950 with the most recent last year on August 21st when an EF-1 touched down east of Saratoga Springs. The most intense tornado to strike portions of Saratoga County was the Mechanicville F3 on May 31, 1998 when an estimated 60 million dollars of damage and 68 injuries occurred. Numerous softwood trees were snapped and uprooted with some falling onto homes on May 15th. The storm survey team also observed a portion of a roof peeled off from a warehouse landing on a van and an empty trailer was lifted and blown onto a van (see Fig 1.) The estimated path width was only 50 yards with a path length of 1.8 miles. There were no injuries or fatalities from the Wilton, EF-1 tornado or the macroburst in Herkimer County.

A second tornado occurred on May 29, 2020 in the NWS at Albany forecast area just north of Saratoga County. Severe thunderstorms developed ahead of a cold front and a strong upper level disturbance that afternoon. A supercell thunderstorm along a line produced a long path tornado that was estimated 8.6 miles and close to a quarter mile wide at times from Lake Luzerne to Glens Falls in Warren County. The tornado was rated an EF-1 with winds of 75 to 110 mph based on the damage. It was on the ground from 5:52 p.m. to 6:05 p.m. EDT. A NWS at Albany storm survey team inspected damage starting near the Hudson River close to Hawk Rd southward to Call St. It moved generally northeast from this start point, and crossed Hartman Loop (see Fig. 2) and moved along Corinth Rd producing damage. The tornado eventually crossed Interstate 87 around Exit 18 uprooting trees in a cemetery. The tornado ended in Glens Falls near the Queensbury Hotel. Damage was fairly extensive west Interstate 87 along many streets including a subdivision on Hudson Point Blvd, where many hardwood and softwood trees were sheared off or uprooted. One home in Hartman Loop had significant roof damage. The damage was less and more sporadic east of Interstate 87. Warren County has only had 3 tornadoes since 1950. The last tornado in Warren County was on July 8, 2014, when an EF-0 impacted North Creek. There were no injuries or fatalities with the tornado on May 29th.

Overall, the tornado season is off to a fast start for eastern New York and western New England with two EF-1's recorded in May. The most tornadoes in a warm season month on average since 1950 occur in July for the Albany Forecast area. It will be interesting if 2020 ends up being above normal for tornadoes in the Albany Forecast area. (*Damage Photos on Page 6*)



Figure 1: Tornado damage in Wilton, NY. Empty trailer was blown on top of the van
(Picture: Steve DiRienzo/NWS Storm Survey Team)



Figure 2: Tornado damage in Lake Luzerne and Hartman’s Loop, NY. Softwood trees snapped and uprooted, as well as a shed damaged (Picture: Steve DiRienzo/NWS Storm Survey Team)



Spring Skywarn Sessions

The unprecedented implementation of safety measures across the region due to COVID-19 resulted in your National Weather Service to quickly adapt our Skywarn Sessions to webinars. Despite the changes, we trained over 200 Skywarn volunteers through GoToMeeting and Google Meet sessions. We thank all of our volunteers as you are a part of the weather spotter network and helping to push the NWS mission forward with the protection of life and property.

This year's presentation, and quiz, are available online at weather.gov/aly/skywarn for your review. Furthermore, for those interested in taking a complimentary course, COMET (the Cooperative Program for Operations Meteorology, Education, and Training) has two courses entitled "[Role of the SKYWARN™ Spotter](#)" and "[SKYWARN™ Spotter Convective Basics](#)".

Reminder, when spotter activation is requested for eastern New York and western New England, please relay any information about observed severe weather to the NWS while following all local, state and CDC safety guidelines. Safety will always be top priority!



- Brian Montgomery, Lead Meteorologist

Stay Safe this Summer!

Severe weather in the United States causes numerous deaths and injuries and billions of dollars of damage. In a typical year, more than 1,200 tornadoes occur throughout the United States and nearly 12,000 reports of wind and hail are received from local law enforcement and the public.

In 2019, there were 14 weather and climate disaster events with losses exceeding \$1 billion each across the United States. These events included 3 flooding events, 8 severe storm events, 2 tropical cyclone events, and 1 wildfire event. Overall, these events resulted in the deaths of 44 people and had significant economic effects on the areas impacted. ncdc.noaa.gov/billions/

National Weather Service forecasters are the first line of defense in predicting severe weather.

Know your Risk, Take Action, Be a Force of Nature!

Source: NOAA NWS Weather-Ready Nation Summer Safety Campaign



Building a Weather-Ready Nation



To learn more about summer safety, visit https://www.weather.gov/wrn/summer_safety

- Jennifer Vogt, Meteorologist

Word Search

Summer Weather

T D R J C P S O P N M X G U V
 H V M A O J Q P U G O S P W O
 U O S X D F U D C U M U L U S
 N F T J T T A E O V E H E M R
 D A W Z X I L R Z D W Y V F G
 E H W T L E L E X E Y C I E J
 R N A O S F L C K W Z R X H D
 S F L R F H I H H P I W W U K
 T R L N H U N O X O D R A R V
 O O C A F M E Y A I M Y A R J
 R N L D L I G H T N I N G I I
 M T O O F D H E F T S E R C N
 J F U U Q I A I M H M A S A I
 D O D P Y T I X W I N D Y N M
 Q G N Q W Y L V Z M I D C E P

Thunderstorm

Squall Line

Lightning

Humidity

Hurricane

Tornado

Cumulus

Windy

Front

Rain

Wall Cloud

Dewpoint

Derecho

Hail

Fog



Word Scramble

Severe Weather

- ynwid _____
- musrcrotbi _____
- nloteashi _____
- lqsaul elin _____
- trmdhronutse _____
- antorod _____
- ybasiititln _____
- ehsar _____
- hlsaf dlofo _____
- lumoibucumns _____

Word Search Answer Key

Summer Weather



Thunderstorm

Squall Line

Lightning

Humidity

Hurricane

Tornado

Cumulus

Windy

Front

Rain

Wall Cloud

Dewpoint

Derecho

Hail

Fog

Word Scramble Answer Key

Severe Weather

- | | |
|--------------|--------------------|
| ynwid | windy _____ |
| musrcrotbi | microburst _____ |
| nloteashi | hailstone _____ |
| lqsaul elin | squall line _____ |
| trmdhronutse | thunderstorm _____ |
| antorod | tornado _____ |
| ybasiititln | instability _____ |
| ehsar | shear _____ |
| hlsaf dlofo | flash flood _____ |
| lumoibucumns | cumulonimbus _____ |

- Thomas Wasula, Lead Meteorologist

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