



# Prevailing Winds

JUNE, 2020

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## NWS-Boston/Norton & the COVID-19 Crisis

by Glenn Field, Warning Coordination Meteorologist

The COVID-19 pandemic has been horrific and our hearts go out to everyone during these incredibly tough times.

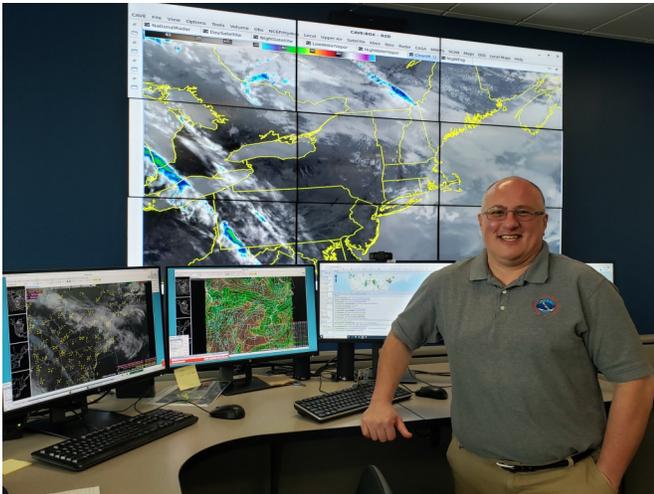
Here at the National Weather Service, we have been able to maintain our operations and services for the public and emergency officials. We continue to operate 24/7 – the weather never stops! Our forecasters continue to work around the clock on operational shifts, with occasional fill-ins by management staff. We have been providing specialized heads-up decision support briefings to state level emergency management and health officials, whenever lightning or wind gusts >30 mph could affect the COVID tent operations within the next 24 hours. In addition, we, along with the NWS Center Weather Service Unit (CWSU) in Nashua, NH, have provided support for arrivals of commercial flights packed with Personal Protective Equipment (PPE) landing at Logan International Airport during the past several weeks.

Behind the scenes, those that are not on operational shifts have been teleworking. We have used this time to accelerate our learning process, taking many online training courses. We have also done some research and have been training ourselves by doing many weather event review webinars, shortly after their

occurrence. Those who researched and/or presented included: Science and Operations Officer Joe DelliCarpini; Senior Meteorologists Hayden Frank, Frank Nocera, and Kevin Cadima; and Meteorologists Bill Leatham, Rodney Chai, and Torry Gaucher. Recent examples of event reviews included:

- March 23 Winter Storm
- April 3 Coastal Flooding
- April 9 Severe Storms
- April 13 High Wind
- April 14 Severe Weather Workshop
- April 17-18 Late Season Snow
- May 9 Snow, Cold, and Strong Winds

We have become quite innovative. Skywarn Program Leader Bryce Williams spearheaded the move to create virtual Skywarn training sessions. While there is a big advantage to taking the training in-person and being able to hear others' questions and to speak directly with NWS forecasters, doing it virtually actually allowed more people to join. We held three virtual classes (May 7, 16, 21). Two were conducted by Bryce Williams and Glenn Field (NWS) and one by Robert Macedo (Amateur Radio Coordinator). More than 700 people attended! Nearly 3/4 of them went the extra mile and then took the 20-question quiz that we implemented for becoming official NWS Spotters. We are working on trying to process these and get them entered into our database.



## MIC Musings: Exciting Changes are Continuing

by Andy Nash, Meteorologist in-Charge

I'm sure that you know we moved into a new building a little over two years ago. It was an exciting change. Being able to finally work in the space that everyone on staff had the opportunity to provide input into is a great feeling. Not to mention having a building that featured large windows, which allows the meteorologists to actually see the sky outside. That move was not the end of change, however. Internally, we are in the midst of a large staff turnover and in the past year we've welcomed our newest meteorologists: Andrew Loconto, Bill Leatham, Rodney Chai, and Torry Gaucher, along with a new electronics technician Sandra White. The new staff come from different parts of the country and bring different skills, but what they all have in common is an eagerness to learn and try new things. That eagerness is contagious and has resulted in great discussions about what we might be able to do to improve the various services that we provide and how we could make that happen. Some of those ideas are starting to see the light of day. For example, we are rolling out the capability to conduct video briefings to state emergency management officials. We are starting to do more internal reviews of significant weather events and sharing them with our media partners, neighboring NWS offices, and the general public via webinars and our (up to now) little-used [YouTube channel](#).

We also are evolving office operations and services in concert with changes that are underway nationwide with the National Weather Service. The [WeatherReady Nation](#) initiative, put most simply, is an effort to make the nation as prepared as possible for any type of severe weather. That's a job far bigger than we can do alone, so that's why we partner with our "Ambassadors" to help spread awareness at the community level. Another national initiative is called [Hazard Simplification](#). This is an outcome of years of social science work to understand how best meteorologists should communicate severe weather threats. One of the myriad of findings is that most people are confused about the differences amongst the watch, warning, and advisory terminology that we use. It doesn't help that we have over one hundred different [alert categories](#), many of which sound very similar. Some of the more noticeable changes you'll be seeing in the next few years will be related to the Hazard Simplification. We will be taking as proactive approach as possible with this initiative because the more understandable our alerts are to everyone, the better we can do our part in meeting our mission to protect life and property. Perhaps a few of you might have noticed that we no longer issue Flood Advisories?

As the saying goes, the only constant is change. We will continue to embrace change with the goal of continuing to improve so that we are keeping everyone who lives in southern New England as safe as possible from Mother Nature's worst -- and rely on all of you to let us know how we are doing.

## RETIREMENTS

### KIM BUTTRICK

Kim (McCartney) Buttrick, HMT at WFO Boston/Norton, retired on December 31, 2019 with 33 years of federal service. This included 24 years within the NWS.

Kim grew up in the Germantown section of Philadelphia, PA and joined the Air Force after graduating High School. She was in active duty from 1981 to 1986 and assigned to the 1957th Communications Group based at Hickam AFB in Hawaii where she spent several years as a Space Systems Equipment Specialist overseeing the equipment used to receive weather satellite data. After her honorable discharge from the Air Force, she continued to serve the country with Air Guard units in New Jersey, Pennsylvania, Vermont and lastly Massachusetts where she was a Weather Officer. It was during her time in the Air Force that her interest in meteorology was piqued, and in 1990 she enrolled in the meteorology program at Penn State. While enrolled in school, she was hired as a Student Trainee at WFO Mt Holly. After receiving her Bachelor's in Meteorology from Penn State in 1995, she joined the NWS full time as an Intern at WFO Burlington. In 1999, she came to WFO Taunton first as an intern and then promoted to a general forecaster. In 2006 she converted over to an HMT and took on the role of managing the Co-Op Observer program for the office. This was a role which she cherished and thrived in, and over the years built up extremely close relationships with all of the observers. Her cheeriness will be missed not only by the co-op observers, but by everyone here at the combined WFO Boston and NERFC offices.



Kim is looking forward to spending her retirement with her husband Rick and focusing on her family. They are planning to remain on Cape Cod, but with plans to travel to Aruba and Disneyworld as often as possible.

## RETIREMENTS...cont'd.

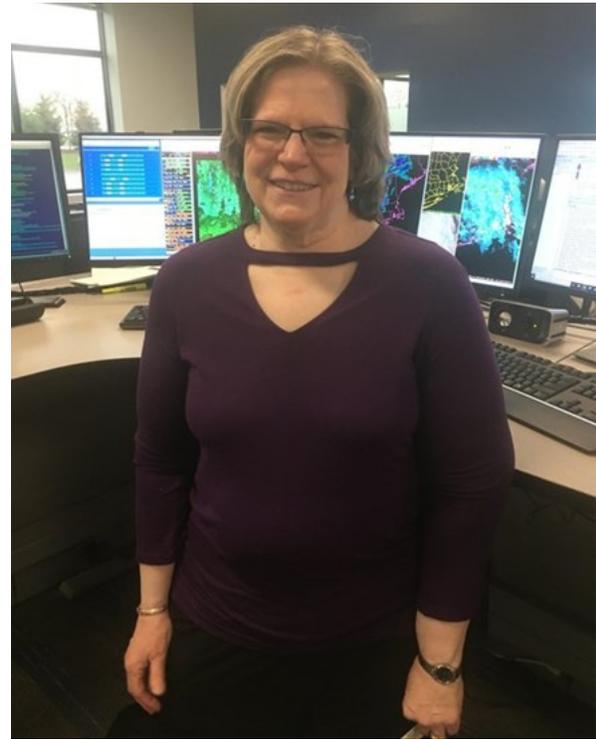
### ELEANOR VALLIER-TALBOT

Eleanor Vallier-Talbot, Meteorologist at WFO Boston/Norton, retired on April 30, 2020, with 35 years of federal service.

Eleanor attended the University of Lowell (now the University of Massachusetts at Lowell) for two years before transferring to Lyndon State College, where she received her Bachelor of Science degree in meteorology. She began her career at the Providence, Rhode Island Weather Service Office and was one of the first female Meteorologist Interns in Eastern Region. Her career included stops at WFO Portland, Maine as a Meteorologist and at WFO Charleston, South Carolina as a Lead Meteorologist but she spent most of her career at the Boston/Norton (formerly Taunton) WFO.

Her love of science education made her the perfect candidate to lead the office's Outreach program for many years. She visited numerous schools, scout troops, civic and philanthropic organizations, and presented at many educational and meteorological conferences during her career. Eleanor frequently interacted with high school and college students who shared her passion for meteorology and many of them pursued careers based upon her encouragement (some of whom were hired into the National Weather Service).

For her work with the AMS' DataStreme Atmosphere Project, she became a Weather Education Resource "Teacher." Eleanor is also a published author with her chapter in "Weather: The Nature Company Guides" (republished by



Fog City Press under the title "A Guide to Weather") and was featured in a segment of PBS' "Curious George" in 2009 which was filmed at the Taunton office (and still airs today).

In addition to outreach, Eleanor served as Program Leader for the office's Satellite Program and was involved with EEO and Diversity, SKYWARN, and marine weather programs.

During retirement, Eleanor will continue to reside in Taunton with her husband Dean. She plans to remain active in science education with various community and school groups in eastern MA.

# WELCOME TO OUR NEWEST STAFF

## TORRANCE (“TORRY”) GAUCHER, Meteorologist

Torry was most recently a digital multimedia journalist and weekend/holiday meteorologist at WPRI-TV 12 in Providence, RI. He is a Rhode Island native (grew up in Burrillville, RI). He earned his B.S. in Atmospheric Sciences with a concentration in broadcast meteorology and an A.S. in Television News Studies from Lyndon State College (now Northern Vermont University at Lyndon). Since graduating, he has worked in the world of TV -- first at KIEM-TV 3 in Eureka, CA, where he was the Chief Meteorologist and station scientist. He then was a weekend meteorologist and environmental reporter at WVNK/WFFF in Burlington, VT before coming to Providence, RI



## SANDRA WHITE, Electronics Technician

Sandra White joined the NWS-Boston/Norton staff this Spring. She was most recently an Electronics Technician with the Veterans Administration Hospital in New Haven, CT. Prior to that she was in the Air Force (both enlisted and as a civilian) for many years, holding a number of positions, including Laboratory Technician, Instructor, and Electronics Technician with the Air Force Research Laboratory and an instructor at the Air Education and Training Command at Fort Gordon Army Installation in Georgia.



Sandra pictured here in front of Doppler radar tower before the pedestal refurbishing that took place in May, 2020.

# WELCOME TO OUR NEWEST STAFF

## RODNEY CHAI, Meteorologist

Rodney has a very unique background. Prior to coming to NWS Boston/Norton, Rodney was a civilian meteorologist for the Navy at their Fleet Numerical Meteorology and Oceanography Center (FNMOC) in Monterey, CA. He worked in the Climatology Division, where he provided naval units with climate information and seasonal forecasts for their operations. He also helped redesign aspects of the division's web portal. He also led the FNMOC Morale, Welfare, and Recreation program that strives to bring staff from the center together to do civic-oriented activities, such as fundraising.

Prior to working at FNMOC, he spent a year as a Pathways student with the EPA in Kansas doing some modelling in support of EPA water quality work. Rodney got his M.S. in Meteorology from the University of Kansas in 2018, and also holds a B.A. degree in Philosophy and Political Science from Haverford College in Pennsylvania. Rodney was raised in Singapore, and served 2 years in the Singapore Armed Forces where he was a First Lieutenant. He is also a big outdoor enthusiast -- having climbed Mt. Kilimanjaro, Half Dome in Yosemite Park, many 14,000+ ft. peaks in Colorado, and has run 5 marathons.



# WELCOME TO OUR NEWEST STAFF

## **BILL LEATHAM, Meteorologist**

Bill joined WFO Boston/Norton after being at WFO Duluth for 5 years. While surviving the brutal Northland winters, he led the Fire Weather and Climate programs at the office. The coldest it got in Duluth when he was there was -31 degrees on January 31st, 2019, although there were several -20 degrees or colder days. Bill oversaw the local operational WRF model. His solid computer/system skills were leveraged when he arrived at BOX...he has added the Top Ten Daily Weather Records Web page for our local climate sites.



Bill graduated from Plymouth State University in 2011 with a B.S. in Meteorology and then earned a M.S. at UMass-Lowell in Atmospheric Science in 2013. He is originally from Shrewsbury, MA. He's an avid fan of hockey and football and attended the Super Bowl in Minneapolis when the Patriots played the Eagles. He also enjoys playing golf, hiking, biking, watching comedies, and playing board games with friends. Currently, the majority of his time is being spent acclimating the retired racing Greyhound he just adopted (Ruby). When it comes to the weather, he's always been fascinated by severe thunderstorms - tornadoes, hail, and damaging winds.

## **ANDREW LOCONTO, Meteorologist**

Andrew came to NWS Norton from NWS Blacksburg, where he was a Forecaster for 2.5 years. Prior to that, he served as a Meteorologist Intern at NWS Burlington, VT for a little over 5 years. Andrew started his career with the Climate Prediction Center in 2008. While in Burlington and Blacksburg, Andrew was involved in much of the research that ultimately led to the implementation of Snow Squall Warnings. His professional interests include severe weather, winter weather, climate, geographic information systems, and computer programming. He received his Bachelors and Masters Degrees from Plymouth State University in New Hampshire. He's a local, hailing from Worcester, MA, and he is excited to be forecasting for Southern New England! His interests outside of work include going on hikes, watching movies and TV shows, and watching sports - especially the Boston-area sports teams.



## WCM Corner

by Glenn Field, Warning Coordination Meteorologist

### No more 'Flood Advisory' from NWS-Boston/Norton

The term 'Flood Advisory' was very confusing. Technically, according to NWS Directives, this was to be issued when ponding of water was occurring, but *not* actual flooding... that is reserved for a 'Flood Warning.' The NWS Glossary defines a flood as "any high flow, overflow, or inundation by water which causes or threatens damage."

We coordinated with our state partners and local media and they were all in agreement that the Advisory is best handled by a Special Weather Statement, which gets good dissemination and it is issued for other lower-end events, such as thunderstorms with pea sized hail. So, when rain is heavy enough to be a nuisance, but it is not causing or threatening damage, we will issue a Special Weather Statement.

There is another type of warning, called a 'Flash Flood Warning.' This differs from a 'Flood Warning' in the severity of the situation. Flash Floods are situations which directly threaten life. They frequently occur in mountainous or hilly terrain, where rapid rises can occur on area rivers and streams. Here in the Northeast, we also get urban flash floods. Certain towns are more susceptible to urban flash floods. We know, for instance, that 6 inches of rain in one of those towns in a short amount of time can overwhelm drainage systems and cause water up to and beyond wheel wells of automobiles. Since it only takes 2 feet of water to float your car away, this can be a life-threatening situation and warrant a Flash Flood Warning -- as opposed to being 'stuck' on a road that's closed due to flooding and if you just wait 45 minutes, you'll be okay.

### 2020 Southern New England Weather Conference Postponed

In light of the current climate and many unknowns regarding COVID-19, the Southern New England Weather Conference committee made the difficult decision to postpone our 20th annual conference. The health and safety for our presenters/attendees is our top priority. The next Southern New England Weather Conference will be held in the Fall of 2021 -- we are aiming for Saturday, October 23, 2021. We understand the disappointment this might have caused and, believe us, we are equally disappointed as well.

### Virtual "Mini-Conference" 10 AM-Noon Saturday, Nov. 14, 2020

While we aren't able to physically meet in person to discuss our passion for weather, we can "meet" virtually. That being said, we are excited to announce that a virtual "mini conference" will be held on Saturday, November 14th between 10 AM and Noon - so mark your calendar! We are still planning this virtual meeting, but preliminarily, items will include a review of last summer's Cape Cod tornadoes... and a look at the 2020-2021 winter outlook. Stay tuned for more information.

## WSR-88D Radar SLEP

by Mike Esip, Electronic Systems Analyst

The Service Life Extension Program, or SLEP for short, is the program to extend the life of all WSR-88D radars, including KBOX in Taunton, MA. The KBOX radar was installed and came on line in 1993. Originally, the WSR-88D was designed for a 20-year service life. Most systems in the field have reached that point or beyond, as in the case of the KBOX radar. The SLEP hopes to add another 20 years to the life of the WSR-88D radars.

The SLEP consists of several sub-SLEPS to include the Signal Processor SLEP, Transmitter SLEP, Pedestal SLEP, Equipment Shelter SLEP, and Generator SLEP. Currently all sub-SLEPs have been completed on the KBOX radar, except for the Generator SLEP.

**Signal Processor SLEP** - Replaces the original processor with a digital state-of-the-art version and eliminates many components of the old processor. Any resemblance to the old processor is now only a memory. (Completed June, 2017)

**Transmitter SLEP** – Refurbishment of the RADAR transmitter with a redesigned modulator, new electrical backplane and control circuitry and fixtures. (Completed October, 2019)

**Shelter SLEP** – Refurbishment of the radar equipment shelter, backup generator shelter, and TPMS shelter. This will make refreshments to the roofs, doors, caulking, and paint. (Completed May, 2020)

**Pedestal SLEP** – Replaces all antenna pedestals with factory refurbished pedestals, drive gears, motors, positioning sensors, and waveguide components. (Completed May, 2020)

**Generator SLEP** – Replaces the generator and fuel tank/containment floor. (Estimated to be done in late 2020 or in 2021)



Radome being lifted off of the pedestal



## 10th Anniversary of the March, 2010 Floods

by Nicole Belk, Senior Service Hydrologist

This year marked the tenth anniversary of the historic March 2010 floods that affected New England. The areas hardest hit by flooding included Rhode Island and central to eastern Massachusetts, but impacts stretched westward and northward into other areas of New England as well.

The weather pattern leading into this flooding was prompted, in part, by 2 large scale influences. The first was El Nino, warm ocean waters in the tropical Pacific Ocean, which produced a moisture-rich southerly jet stream. The second was a large area of high pressure over Greenland and eastern Canada, which acted to “block” low pressure systems passing through our area from tracking northward, effectively slowing storms down or stalling them out as they crossed through our area. There were additional factors that allowed exceptional flooding to occur. Vegetation was dormant. Due to a series of 5 heavy rainfall events from late February through March 2010, there was little time for rivers and streams to recover. River levels became progressively higher.

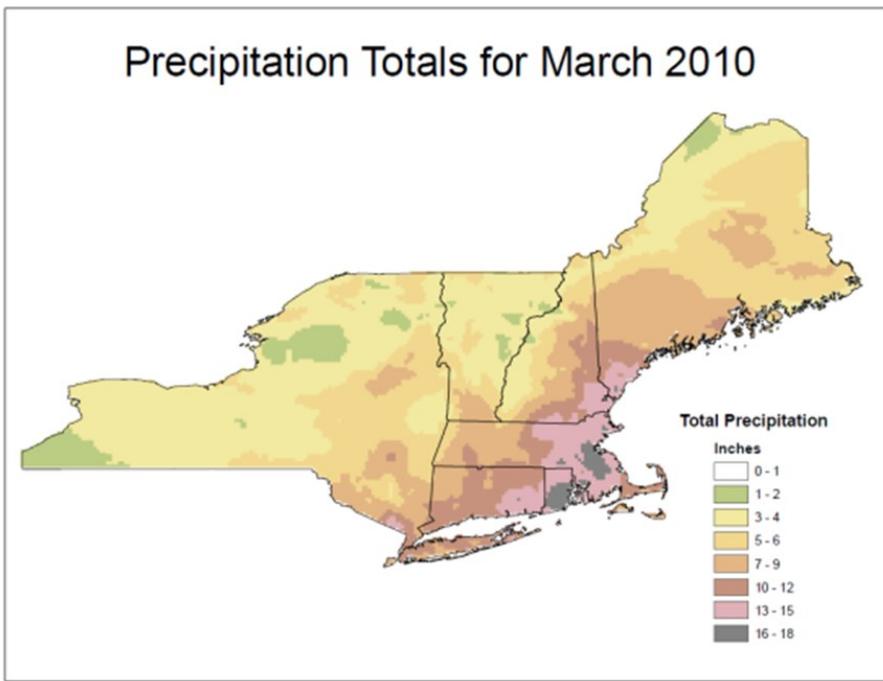
There were 2 heavy rainfall events that stood out among the rest. During March 13<sup>th</sup> to 15<sup>th</sup>, 7 to 10 inches of rain fell across eastern Massachusetts. Totals of 4 to 6 inches fell just to the west, generally in the vicinity of the I-495 corridor and west into the Worcester Hills, Rhode Island, and far northeast Connecticut. Widespread flooding occurred in these areas, with record flooding on some rivers. Waterways that had record flooding included but were not limited to portions of the Shawsheen, Charles, Taunton and Concord Rivers in MA, and the Pawtuxet River in RI.

The rainfall event during March 29<sup>th</sup> to 31<sup>st</sup> was the worst across RI and southeast MA. Rainfall of 6 to 10 inches occurred over these hardest-hit areas. In RI, 21 river and stream gages monitored by the United States Geological Survey (USGS) experienced record or near record flooding from this final heavy rainfall event. In central and eastern MA, 13 river and stream gages monitored by the USGS experienced record or near record flooding during either the mid-March floods or the late March floods.

On the Pawtuxet River in RI and the Taunton River in MA, record flooding at the end of March 2010 broke the record flood crests set at these locations just 2 weeks earlier! Flooding on the Pawcatuck River in RI was so severe that the river remained in flood until April 12<sup>th</sup>.

So across eastern MA and RI, how did the rainfall in March 2010 compare to other incredibly rainy months? At Providence, with records going back to 1904, 16.34 inches of rainfall made it the rainiest month on record at that location. Boston had 14.87 inches of rainfall, making it the second rainiest month on record there. Records at Boston go back to 1872. Other stations with 100+ years of record

## 10th Anniversary of the March, 2010 Floods — cont'd.



Rainfall totals from March 2010 across New York and New England

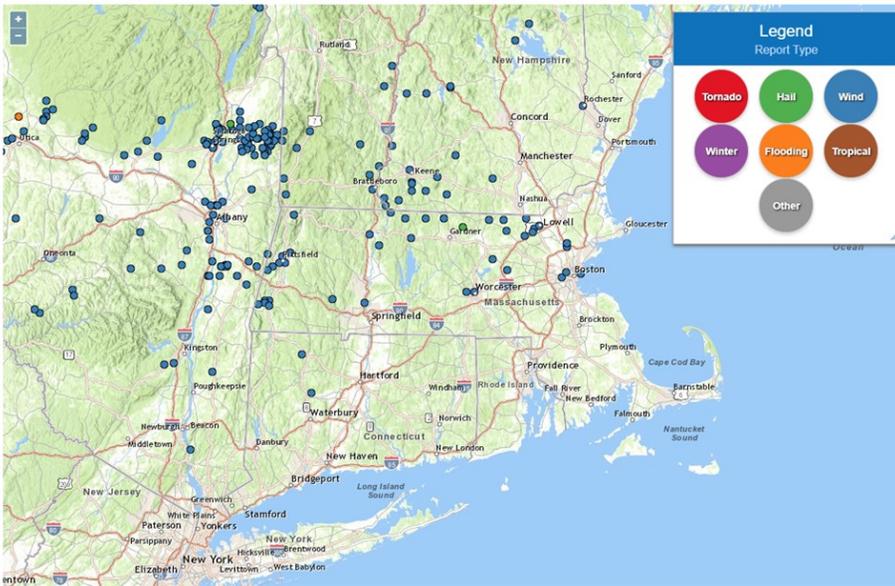


Inundation resulting from record flooding on the Pawtuxet River  
on Providence Street in West Warwick, RI.

# May 15, 2020 Severe Thunderstorms

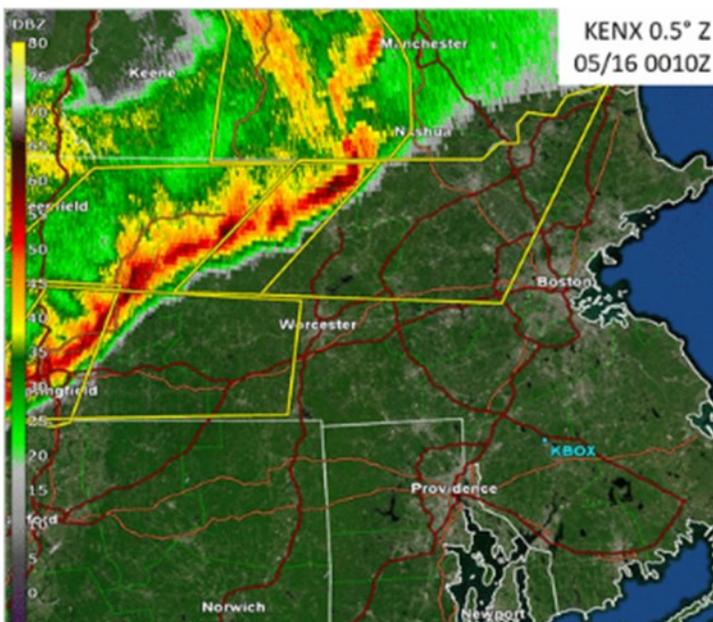
by Joe DelliCarpini, Science and Operations Officer

On Friday, May 15 a line of severe thunderstorms produced damaging winds in Massachusetts, mainly along and north of the Mass Pike. A wind gust to 86 mph was recorded at a home weather station in Westford and a gust to 63 mph was recorded at Worcester Airport. Damage was especially significant in northeast Massachusetts, in Groton, Pepperell, and Westford where winds estimated to be as high as 90 to 100 mph brought down hundreds of trees.



Damage reports from May 15, 2020

The line of storms formed early in the afternoon near Lake Ontario, ahead of a cold front, and tracked east, producing wind damage throughout much of upstate New York as well as a EF-1 tornado in Wilton, NY. The storms reached New England early in the evening and continued to produce damaging winds.



Radar image from 8:10 PM

## May 15, 2020 Severe Thunderstorms — cont'd

As damage reports came into our office that night and the next day, there was some question as to whether or not the damage in Westford, Groton, and Pepperell was the result of a tornado. Upon looking at photos of the damage that were provided to us, it was evident that the damage was produced by straight-line winds. In the photo below, taken by a drone, you can clearly see the trees are all lying down in the same direction and there is a “spreading out” in the damage pattern. This is an indication of damage caused by straight-line winds. Damage caused by a tornado features a convergent pattern among the downed trees and often you can see twisting of the debris. The imagery also showed a solar panel farm in the path that appeared to have no damage, which also would likely indicated downward motion, as opposed to them being lifted upwards by tornadic winds.

This was classified as a microburst. Every thunderstorm has an updraft and a downdraft. A microburst is an exceptionally strong downdraft which produces a swath of damage less than 2.5 miles in length (if it is longer it's called a macroburst). The term 'downburst' is the generic term, which includes microbursts and macrobursts.



**Drone footage of wind damage at Cow Pond Brook Conservation Area in Groton, MA, courtesy of David Hupp**

## WX1BOX Amateur Radio Remote Operations due to COVID-19

by Robert Macedo, KD1CY, Skywarn Coordinator for NWS-Boston/Norton

In 2020, the WX1BOX amateur radio team has had to adapt to remote operations amid COVID-19 in order to fulfill the SKYWARN mission of timely severe weather reporting into the NWS office for the protection of life and property. This has meant running nets from home stations across the area and using the policy of “self-activation” of the Amateur Radio SKYWARN network more broadly since operations at the NWS Forecast office was not allowed. Our amateur radio team continues to use an all sources approach to data and report gathering leveraging: 1) amateur radio networks; 2) Facebook/ Twitter for non-amateur radio Skywarn Spotters or those who are not near their radio gear; 3) public safety monitoring tools such as “Incident Ally”; and 4) on-line weather stations. The information is then shared with the National Weather Service via a specific NWS Chat room for amateur radio coordinators, as well as via email and the spotter reporting web form, as needed. These reports provide a situational awareness picture for the National Weather Service, emergency management, and other entities.



Amateur Radio station setups like the one shown here provide means of communication across area repeaters. This allows net activities to be conducted without being physically located at the National Weather Service office. This approach can work for most severe weather situations, but scenarios that impact more widespread communications paths could cause disruption of information flow into the NWS office, in the absence of operators in the office. Also, the areas farthest away from the NWS Forecast Office can be harder to reach without operations at the NWS office. So far, the approach we have taken has been effective, although this will bear watching, should an extreme weather event unfold, such as a landfalling hurricane.

Amateur radio station setup of KD1CY-Rob Macedo, which also includes public safety radio monitoring equipment

The WX1BOX team is interested in more amateur radio operators to serve as net control stations, which manage the radio traffic on a given repeater, when SKYWARN Nets are active. If you're interested, contact Rob Macedo-KD1CY via email at [rmacedo@rcn.com](mailto:rmacedo@rcn.com) and he can provide you with information.

As mentioned above, we utilize an all sources approach to acquiring criteria meteorological and damage information, which can affect the NWS warning process and provide verification warnings. Here is a great example of how that worked.

On Saturday May 23, 2020, low pressure passing just south of the region combined with a cold front dropping southward across northern MA to produce an area of persistent heavy rain over Martha's Vineyard and Nantucket. The NWS Doppler radar estimate of rainfall in those areas was lower than the ground truth in those areas, where online weather stations and SKYWARN spotters showed rainfall greater than 1" with some places having rates of more than 1" per hour. This was resulting in street flooding over portions of those islands. Based on these ground truth reports, forecasters at NWS-Norton issued a Flood Warning for Martha's Vineyard and Nantucket and also adjusted the radar's precipitation estimation algorithm (Z/R relationship) to better account for the warm season processes that were

## Amateur Radio Remote Operations — cont'd.

Occurring (see dialogue below from the Skywarn Coordinators' chatroom on NWS Chat).

requested to address the issue

14:42 <ham-robort.macedo> 1012 AM: Oak Bluffs, MA: 22 Nantucket Avenue - flooded - depth of flooding unknown

14:43 <ham-robort.macedo> Vineyard Haven, MA: 1.49" of rain - max rate was 1.22" in 1 hour from about 850-950 AM

14:52 <ham-robort.macedo>  
Link: [https://twitter.com/metro\\_notify/status/1264201247105654785/photo/1](https://twitter.com/metro_notify/status/1264201247105654785/photo/1)

14:53 <ham-robort.macedo> Oak Bluffs, MA: The intersection of Circuit Avenue, Narragansett Avenue and Kennebec Avenue is flooded due to the heavy rainfall. An officer is on scene to assist motorists.

14:53 <ham-robort.macedo> KB1UAM-Anthony forwarded that on to us

15:07 <nws-andrew.n.loconto> Good morning Rob! Thanks for those reports!

15:08 <ham-robort.macedo> Nantucket, MA: Washington Street and Pleasant Streets flooded up and over sidewalks report per N1NBQ-George

15:09 <ham-robort.macedo> N1NBQ-George also reports 1.50" of rain

15:35 <ham-robort.macedo> Nantucket MA - South Pasture - 1.90", Milestone Bog - 1.72"

15:36 <ham-robort.macedo> this is the southeast part of the island

15:36 <ham-robort.macedo> Nantucket - Polpis - 1.82"

16:09 <ham-robort.macedo> Nantucket, MA - South Pasture - 2.02"

16:14 <ham-robort.macedo> Vineyard Haven, MA: 2.05"

16:15 <nws-andrew.n.loconto> Great reports, Rob! Thank you again for those. We think the radar was underestimating the rain amounts pretty significantly and on the basis of the ground truth, we went ahead and changed the relationship the radar uses to convert radar reflectivity to precipitation estimates over to the one we use more commonly in summertime. Thanks again!  
-Andrew

16:23 <ham-robort.macedo> Edgartown, MA: 2.53"

16:29 <ham-robort.macedo> 1230 PM: Vineyard Haven, MA: Beach Road by the XtraMart is flooded to the point requiring Mass Highway support again

Chat log showing the usefulness of the reports and the change in radar algorithm

In the log, you can also see that there was a report and photo of flooding forwarded by Anthony-KB1UAM, from an Oak Bluffs Police Department social media feed. This confirmed the flooding issues. Reports from George-N1NBQ of flooding on Nantucket and a rainfall report were instrumental in confirming the flooding and verifying the Flood Warning. Other reports listed were from monitoring public safety traffic via radio scanners, internet public safety radio feeds, and a system called "Incident Ally," created by KB1NCS-Matt Goldstein as part of his emerging-response company which focuses on key words such as flooding and "trees and wires down" to clip

out those reports for review and is provided to the amateur radio team at WX1BOX and the NWS Skywarn program as a public service to allow for information gathering for this and many other weather-related incidents.



Carl Howe  
@c1h0w3

@NWSBoston @WX1BOX measurements and accumulation of hail in Stow, MA from WG1V, 20-53S



9:03 PM · Jun 6, 2020 · TweetBot for Mac

Amateur radio operators, when not near their gear, may also provide reports via social media such as Facebook and Twitter. In the flooding example on May 23<sup>rd</sup>, you saw an amateur radio operator who relayed a police department Facebook post to our WX1BOX twitter feed. In the screenshot to the left, you see an example of an amateur radio operator (WG1V-Carl Howe) relaying a report of pea to quarter sized (1" hail) from his location in Stow, MA from the June 6<sup>th</sup> severe thunderstorm event. This information provides great situational awareness to forecasters. Non-amateur radio spotters can also post via social media. Again, it is part of that all sources report gathering approach that we use.

To learn more about the WX1BOX amateur radio team operations, the frequencies we utilize, to get more involved with Skywarn amateur radio, and to see more pictures and videos of past events, check out the WX1BOX social media and web sites via the links below:

WX1BOX Facebook Page: <http://www.facebook.com/wx1box>

WX1BOX Twitter Feed: <http://www.twitter.com/wx1box>

WX1BOX Web Site: <http://www.wx1box.org>

Finally, if you're interested in being on the Skywarn Announcement email list maintained by the WX1BOX amateur radio team or interested in being a net control operator for the amateur radio Skywarn network, contact Rob Macedo (KD1CY, ARES Skywarn Coordinator for the NWS Boston/Norton office) at [rmacedo@rcn.com](mailto:rmacedo@rcn.com)

Thanks again to all Skywarn Spotters for your support during 2020 so far despite the issues presented by COVID-19. We look forward to working with everyone as we move through the rest of 2020!



## National Weather Service Southern New England

46 Commerce Way  
Norton, MA 02766  
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**Meteorologist In-Charge:**

**Andy Nash**

**Warning Coordination Meteorologist:**

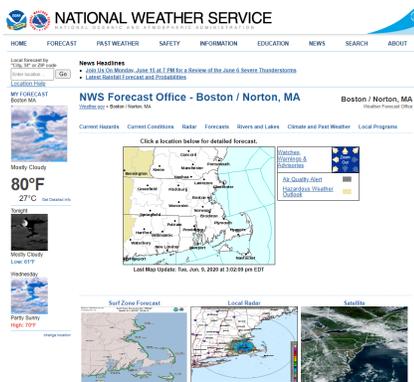
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