

The WE Eye

A Southern New England
Cooperative Weather Observer Newsletter



February 2013

Editor: Kimberly Buttrick

RAIN GAUGE REMINDER

It is good practice to check your innertube and overflow can for leaks from time to time. As a suggestion, check for leaks at the beginning and at the end of the winter season.

During the winter season, the funnel and innertube should be removed from the overflow can. This will enable any and all snowflakes that fall at your station to accumulate in your rain can and thus get representation on the climate record.

As we approach spring and temperatures begin to warm, remember to place the innertube back into the overflow can with the funnel on top.

REMEMBER TO CHECK THE OVERFLOW CAN

The innertube holds exactly 2.00 inches of water. Thus come spring and summer, if you ever measure that exact amount, be sure to check your overflow can for any additional rainfall that could have overflowed into the overflow can – thus the name “overflow can!”

After a heavy 24 hour rain event last summer, one of our Coop Observers reported 2.02 inches. She called back with a correction as she forgot to check the overflow can. Turns out the heavy rain event deposited 2.64 inches in the rain gauge.

If you measure exactly 2.00 or nearly 2.00 inches, remember to check the overflow can for any extra rain!

The overflow can holds 20 inches of water. Thus if you receive more than 2.00 inches of rainfall, know that it will take a lot of overflow to fill up your rain gauge!

A FLURRY OF ACTIVIY = TRACE

If you see flurries occurring at your station, you should report a Trace of snowfall. And a trace of snowfall means a trace of liquid precipitation too!

If you see/feel light drizzle, that too should be recorded as a trace of precipitation. It may not measure up to anything in your rain gauge, but a trace is a trace is a trace – is a trace!

**COURT APPEARANCES BY
COOPERATIVE OBSERVERS**

The following is an excerpt from National Weather Service (NWS) Instruction 10-1307 titled Cooperative Program Management and Operations dated August 3, 2012:

When an observer is contacted by an attorney or court official with a subpoena for a case where weather conditions may be a factor in litigation, the observer should inform the attorney having the subpoena issued that:

- a. Cooperative observers cannot authenticate any NWS records, even carbons or photocopies they may have in their possession, for they do not have the authority to certify these records.
- b. Cooperative observers cannot testify on behalf of the NWS.
- c. The National Climatic Data Center (NCDC) in Asheville, North Carolina is the official custodian for weather records of the NWS. NCDC can certify/authenticate the records and can be contacted at:

National Climatic Data Center
151 Patton Avenue
Asheville, North Carolina 28801-5001

Request for Data:
Weather/Climate 828-271-4800

If the attorney is seeking expert testimony refer him/her to the following commercial website for a list of expert meteorologists:

<http://www.ametsoc.org>

If the attorney is satisfied, request the subpoena be withdrawn. If the attorney insists on the observer's testimony the observer is required to honor the subpoena.

The observer's testimony should be limited to elements about which he/she has personal knowledge or information.

Note: Court officials with subpoenas are process servers. Process servers do not have the power to withdraw the subpoena. Contact the attorney that issued the subpoena.

**WHAT DOES YOUR STATION NUMBER
MEAN?**

Your station number is comprised of 8 numbers. For example: 12-3456-78

The first 2 numbers are the state. For example:

The state of Connecticut = 06
The state of Massachusetts = 19
The state of New Hampshire = 27
The state of Rhode Island = 37

The next 4 numbers are called the index number which represents the name of your coop site from your state. For example:

06-8138...the 8138
= Storrs in Connecticut
19-2451...the 2451
= East Wareham in Massachusetts
27-4399...the 4399
= Keene in New Hampshire
37-4266...the 4266
= Kingston in Rhode Island

So what do the last 2 digits of your station number represent? The last 2 numbers are the climate division in your state. Here are some actual 8 digit station numbers from MA:

19-2501-03 Edgartown
19-5524-02 Northbridge
19-9972-01 Worthington

Massachusetts is divided into 3 climate divisions or zones. Edgartown is located on Martha's Vineyard and is part of the coastal plain - thus the climate zone 03 = the coastal plain. Northbridge is located in the south central part of the state with a climate zone of 02. And Worthington is located in western Massachusetts, thus its climate zone = 01.

WxCoder3 ENHANCEMENTS

For those observers who use WxCoder3, you may have noticed a new feature when you go under "My Observations." There is now a link called, "Super Form." To address this new feature, NWS Headquarters put together some talking points. Additionally there have been other enhancements to WxCoder3. Following is an explanation of the Superform and the other enhancements to WxCoder3:

From NWS Headquarters

The purpose of the enhancements is to improve the capabilities of WxCoder3 to allow more efficient data entry, higher quality data checking and the ability to enter data from a wider variety of daily data forms. All of this is needed to meet the goal of achieving a paperless system for the COOP network. All the effort to convert COOP stations to a digital process, either IV-ROCS or WxCoder3, culminates at the start of November 2012. In order to have COOP observations archived and published, they should be entered using IV-ROCS or WxCoder3, either by the observer or by the local Weather Forecast Office (WFO).

To make the conversion to a paperless system possible for all types of stations in the network, the NWS has worked alongside the National Climatic Data Center and the

Western Region Climate Center to come up with enhancements to WxCoder3. These enhancements are designed to accomplish three primary goals: 1) to design a "superform" which allows the entry of all types of stations; 2) to make the close out process even more efficient; and 3) to create a batch entry process for the WFOs which allows a more efficient method to enter an entire month of data for multiple stations.

These enhancements were made available to everyone in late October 2012, and became ready for entering with November 2012 data. The current WxCoder3 system and forms will still be available after these enhancements are put in place. Each of these updates to WxCoder3 will enhance what is already available. There will be some other minor changes to the system, such as accumulating precipitation, identifying whether a field should have blanks or zeroes, and a few other updates. Below is a review of what will be available in the enhancements.

What is the Superform?

The Superform is the new interface that will allow an observer to enter/review/closeout their data each month. This is primarily to allow users that can't use the B-91 form to enter and/or review their data. The Superform will be defined based on the weather elements that the servicing NWS office configures for each site. An observer should see all the elements they observe. This will allow the observer to focus on the observed elements specific to their site.

Why is the Superform needed?

Rather than relying on the structure of legacy forms (B-91, B-83, B92, etc), the Superform will be a single interface that all observers can use, but will be customized to

their observed elements. This will eliminate the need for multiple forms at some locations as well as removing many unused field entries that may lead to confusion for the observer.

Does this replace the existing B-91 entry form and other display forms?

No, not at this time. Although all observers will be encouraged to use the Superform, the existing entry and display forms will continue to be available. However, future development and enhancements will focus on the Superform, so observers are encouraged to become acquainted with the Superform. Additionally, the legacy entry and display forms may be removed during future enhancements or as the forms are deemed obsolete.

Can I print (output) a copy of the data in the Superform?

Due to the short development and testing time to meet the deadlines for the paperless initiative, the initial release and implementation of the Superform won't have output options. However, it is being worked on and some initial capability is expected to be added in 2013. Data entered via the Superform will be accessible to the existing forms, so they can be used while we continue to enhance the Superform.

Do I need to use the Superform?

No, not at this time. The existing entry methods, both daily and monthly (B-91) will continue to be available. If these methods serve your current needs, continue to use them. However, we suggest that you try the Superform when you have an opportunity. Your servicing NWS office will be able to help you learn more about the Superform and how it can work for you. There may

come a time in the future that the Superform will become the only method of data entry.

What other new features are coming?

New enhancements that were part of the late October 2012 release included improvements to the closeout process as suggested by several users, an update to the ability to enter precipitation accumulations over multiple days, a method to check if blank entries should be zero or missing, and entry of mixed observation times, i.e., precipitation observed in the a.m. and temperatures observed at midnight.

Will there be other enhancements?

Many other enhancements have been suggested. We greatly appreciate all who have given suggestions (and complaints, too). Several additional suggestions were on our original list, but current budgets and time didn't allow them to be included at this time. There has been a small design group and one very good programmer working on the current enhancements, but it definitely has been a good community effort.

WARNING/ADVISORY CRITERIA

If you ever want to know what triggers specific advisories and warnings issued from NWS Taunton for Southern New England, you can check out this link:

<http://www.erh.noaa.gov/box/warningcriteria.shtml>



COOPERATIVE OBSERVER POSITION DESCRIPTION

Here's your job description in black and white:

A Cooperative Observer functions as a volunteer member of the National Weather Service Data Acquisition Team. The daily collection of specific weather elements and the timely transmission of that data to the local Weather Forecast Office allow meteorologists and hydrologists to develop, refine and verify forecasts, outlooks and warnings for the Cooperative Observers' area. The data will also be used by the National Climatic Data Center to determine averages and extremes for the observer's area. This data will be published as part of the historical record.

The Cooperative Observer will be responsible for collecting the data daily and providing it to the appropriate officials in an agreed upon and timely manner. The Cooperative Observer will endeavor to provide basic care for the supplied weather equipment and will notify the local National Weather Service representative of problems with the equipment. The Cooperative Observer will allow the National Weather Service representative access to the equipment for maintenance, calibration and inspections. The Cooperative Observer will make every effort to secure fill-in observers during extended periods of unavailability.

The Cooperative Observer will follow National Weather Service guidelines, local and state laws (i.e., Safety and Environmental Compliance) during the commission of his/her duties.

The Cooperative Observer should be dependable, have an interest in weather and a desire for public service. Basic

communication skills are helpful along with the ability to keep good records. Computer skills are a plus but not a necessity.

The Cooperative Observer will work with a designated member of the local Weather Forecast Office who will be available to answer questions and provide support. The designated representative will provide all necessary supplies including postage, forms, mailing envelopes and other incidentals.

The time commitment will average from 5 to 15 minutes daily depending on the array of weather equipment the Cooperative Observer is responsible for collecting data from, and the means of relaying the data to the local weather office. Occasional periods of interaction with the representative from the National Weather Service are also required. Additional reports are encouraged during periods of extreme weather to aid in public safety, if the observer is available.

NWS TAUNTON NEWSLETTER LINK

Did you know that NWS Taunton issues an office newsletter called *Prevailing Winds*? While *The Weather Eye* is specifically written and published for Coop Observers, *Prevailing Winds* targets a wider audience. You can check out recent and past issuances of *Prevailing Winds* at:

<http://www.erh.noaa.gov/box/officePrograms/SkyWarn.shtml>



COOP PAGE REMINDER

A Coop Page is located on Taunton's National Weather Service web site. To access the Coop Page go to this link:

<http://www.erh.noaa.gov/box/officePrograms/Coop.shtml>

There are some informative links to access, such as the history of the Coop Program, the National Cooperative Observer Newsletter, snow measurement guidelines, and current and past copies of *The Weather Eye*!

WEATHER RECORDS

Looking for past weather records from your site or perhaps somewhere else? All Coop data gets scanned and archived at the National Climatic Data Center. You can view this data on-line by going to this web site:

<http://www7.ncdc.noaa.gov/IPS/>

Click on Coop Data (the 6th link down on the list);
Click on a State;
Click on a Coop site;
You'll then see monthly data to choose from.

For a more interactive approach to looking at weather data across the globe, go to:

<http://www.ncdc.noaa.gov/cdo-web/search>



SUPERSTORM SANDY

From the desk of Kimberly Buttrick
- *Hydro-Meteorological Technician at*
NWS Taunton



Leading up to Sandy's approach from the Bahamas to Southern New England, NWS Taunton went into severe weather operational mode. In an effort to ensure a well running operational team leading up to, during and after the Sandy event, all personnel (management, forecasters and hydro-met techs) got assigned 12 hour shifts.

By ramping up to severe weather mode for the long haul, we ensured the most up to date forecast and related impacts got relayed to all partners and stake holders, including the public, media, emergency managers, Coast Guard, town and state officials and other government agencies. NWS Taunton conducted conference calls with our partners and stake holders about every 3 hours. This ensured all users were well informed of Sandy's impacts over land, sea and air.

I got the opportunity to work the Sandy event leading up to, during and after Sandy. Although Sandy's impacts to Southern New England were not as profound as the impacts felt further south over Long Island, New York City and New Jersey, we all collectively have been impacted by Sandy in one way or another. Sandy was one of those storms that will go down in history as well as infamy. Soon after Sandy, I quickly jotted down highlights from the storm that I thought were important enough to keep Sandy fresh in my memory. Following are my notes:

❖ **2012 October 29 – Superstorm Sandy**

- Came ashore just south of Atlantic City as a Cat 1 @8pm Oct 29
- Minimum central pressure: 940 mb 27.76 inches
 - Lowest recorded pressure over the Atlantic north of Cape Hatteras
- Extremely large storm with a diameter spanning @1000 miles
- Unique because it curved left and made a beeline for the Jersey shore
- Sandy gained strength from a deep long wave trough digging through the central USA that went negative tilt scooping her up and drawing her back toward New Jersey...while a strong upper level blocking ridge settled over the Canadian Maritimes (Nova Scotia, New Brunswick, New Foundland) reinforced her westward movement
- Came ashore during full moon
- Greatest impacts from NJ to MA were the winds and coastal flooding
- Tropical Prediction Center (National Hurricane Center) issued no hurricane headlines north of NWS Wakefield, VA. Reasoning had to do with Sandy transitioning from tropical to post tropical (warm core to cold core characteristics). Offices from Wakefield north used local products to headline the hurricane.
 - Hurricane Force Wind Warnings over our adjacent coastal waters were highlighted in the Coastal Waters Forecast Product (CWF)
 - High Wind Warnings for the land were highlighted via a Non-Precipitation Weather Product (NPW)
 - All of New England headlined High Wind Warnings
 - Coastal Flood Warnings were relayed via the Coastal Flood Product (CFW)
- Coastal flooding along CT, RI and MA – especially severe along RI south coast
 - 36 hours out before Sandy made landfall...morning of Sunday Oct 28...storm surge felt at Steamship Authority ferry dock in Woods Hole, MA when morning high tide was still high - 2 hours after the fact
 - Difficult getting cars and trucks on/off ferry as boat was sitting too high in the water – semi trucks were turned away
- Highest seas reported from Buoy 44008 (Nantucket Shoals) with 36 feet (11 meters) on 29th/850pm
 - Wind gust to 65mph (29 m/s) and sustained at 49mph (22 m/s) on 29th/350pm before wind sensor went out
- Highest wind gusts from:
 - Buoy BUZM3 (Buzzards Bay) with an 83 mph gust 29th/300 pm
 - Citizens Weather Observing Program platform in Westerly, RI with an 86 mph gust 29th/244 pm (during what looked to be a gravity wave on radar at that time)
- Unprecedented coastal flooding along the Jersey coast, NYC and Long Island
 - Reshaped the topography of a region
 - Altered landscapes

SANDY'S RECAP

Many reports came into NWS Taunton from the effects of Sandy. These reports included rainfall, wind and coastal flooding, including damage reports caused by the wind and coastal flooding. Reports of rainfall totals and wind speeds were compiled in a Public Information Statement (PNS). Rainfall of 2 inches or more were included in the PNS. Sustained wind speeds of 31 mph (27 kts) or greater and wind gusts of 46 mph (40 kts) or greater were included. Following is the final PNS for Southern New England listing rain and wind reports from Sandy:

But first a key to the observation platforms listed in the PNS under Comments:

- ASOS** NWS Automated Surface Observing System
- AWOS** FAA Automated Surface Weather Observing System
- BUOY** Buoys – those listed in proximity to Southern New England’s coastal waters
- CWOP** Citizens Weather Observing Program
- NOS** NOAA’s National Ocean Service buoys
- NWS COOP** NWS Cooperative Weather Observer
- NWS NEPP or NEPP Mesonet**
NWS New England Pilot Project (automated observation platform)
- Spotter, Amateur Radio, Ham Radio**
NWS trained Skywarn observer

PUBLIC INFORMATION STATEMENT
 SPOTTER REPORTS
 NATIONAL WEATHER SERVICE TAUNTON MA
 402 PM EDT TUE OCT 30 2012

THE FOLLOWING ARE UNOFFICIAL OBSERVATIONS TAKEN DURING THE PAST 34 HOURS FOR THE STORM THAT HAS BEEN AFFECTING OUR REGION. APPRECIATION IS EXTENDED TO HIGHWAY DEPARTMENTS...COOPERATIVE OBSERVERS...SKYWARN SPOTTERS AND MEDIA FOR THESE REPORTS. THIS SUMMARY IS ALSO AVAILABLE ON OUR HOME PAGE AT WEATHER.GOV/BOSTON

*****STORM TOTAL RAINFALL*****

LOCATION	STORM TOTAL RAINFALL /INCHES/	TIME/DATE OF MEASUREMENT	COMMENTS
MASSACHUSETTS			
...BRISTOL COUNTY...			
WEST MANSFIELD	2.83	800 AM 10/30	SPOTTER
NORTON	2.42	1130 AM 10/30	SPOTTER
REHOBOTH	2.07	700 AM 10/30	NWS EMPLOYEE
TAUNTON	2.04	700 AM 10/30	NWS OFFICE
...MIDDLESEX COUNTY...			
PEPPERELL	3.30	1046 AM 10/30	SPOTTER
AYER	3.11	1012 AM 10/30	SPOTTER
ACTON	2.59	713 AM 10/30	SPOTTER

NATICK	2.59	700 AM 10/30	NWS COOP
HUDSON	2.48	959 PM 10/29	SPOTTER
TEWKSBURY	2.31	1012 AM 10/30	SPOTTER
2 WSW BEDFORD	2.10	800 AM 10/30	BED ASOS

...**NORFOLK COUNTY**...

WALPOLE	2.73	700 AM 10/30	NWS COOP
FOXBORO	2.71	800 AM 10/30	NWS COOP
EAST WALPOLE	2.60	114 AM 10/30	TRAINED SPOTTER
NORWOOD	2.59	700 AM 10/30	NWS EMPLOYEE
3 SSW MILTON	2.30	800 AM 10/30	MQE ASOS
BLUE HILLS	2.21	700 AM 10/30	NWS COOP

...**WORCESTER COUNTY**...

NORTH ASHBURNHAM	3.70	700 AM 10/30	NWS COOP
ASHBURNHAM	3.20	700 AM 10/30	NWS COOP
ROYALSTON	2.64	700 AM 10/30	NWS COOP
SPENCER	2.31	300 AM 10/30	SPOTTER
BARRE FALLS	2.30	401 AM 10/30	NEPP MESONET
4 SE FITCHBURG	2.23	800 AM 10/30	FIT ASOS
WEST ROYALSTON	2.12	700 AM 10/30	NWS COOP
SOUTHBRIDGE	2.12	800 AM 10/30	SPOTTER
FISKDALE	2.04	700 AM 10/30	NWS COOP

NEW HAMPSHIRE

...**CHESHIRE COUNTY**...

JAFFREY	3.71	700 AM 10/30	NWS COOP
2 SE JAFFREY	3.65	800 AM 10/30	AFN ASOS
KEENE	2.85	700 AM 10/30	NWS COOP
FITZWILLIAM	2.78	800 AM 10/30	NWS COOP

...**HILLSBOROUGH COUNTY**...

PETERBOROUGH	2.98	700 AM 10/30	NWS COOP
NASHUA	2.50	353 AM 10/30	NEPP MESONET
EAST MILFORD	2.47	700 AM 10/30	NWS COOP
HUDSON	2.46	700 AM 10/30	NWS COOP

*******PEAK WIND GUST*******

LOCATION	MAX WIND GUST MPH	TIME/DATE OF MEASUREMENT	COMMENTS
----------	-------------------------	--------------------------------	----------

CONNECTICUT

...**HARTFORD COUNTY**...

1 WNW WINDSOR LOCKS	71	708 PM 10/29	BDL ASOS
BURLINGTON	58	422 PM 10/29	SPOTTER
3 SE HARTFORD	54	653 PM 10/29	HFD ASOS

...**TOLLAND COUNTY**...

STAFFORD SPRINGS	50	352 PM 10/29	SPOTTER
------------------	----	--------------	---------

...**WINDHAM COUNTY**...

THOMPSON	61	639 PM 10/29	AMATEUR RADIO
3 NE WILLIMANTIC	53	615 PM 10/29	IJD ASOS

MASSACHUSETTS**...ANZ230...**

1 SSW FORT INDEPENDENCE 72 300 PM 10/29 PLEASURE BAY

...ANZ232...

2 SSW HYANNIS PARK 72 200 PM 10/29 KALMUS
10 N FISHERS LANDING 60 400 PM 10/29 BUOY 44020

...ANZ235...

6 WSW CUTTYHUNK 83 300 PM 10/29 BUOY BUZM3

...ANZ250...

8 SSE BASS ROCKS 56 604 PM 10/29 BUOY 44029

...ANZ251...

8 NNE MINOT 59 400 PM 10/29 BUOY 44013

...BARNSTABLE COUNTY...

MARSTONS MILLS 79 447 PM 10/29 AMATEUR RADIO
BARNSTABLE 79 101 AM 10/30 HAM RADIO
WELLFLEET 74 107 PM 10/29 SPOTTER
EAST FALMOUTH 72 200 PM 10/29 SPOTTER
2 NE HYANNIS 61 356 PM 10/29 HYA ASOS
HARWICH 56 1010 AM 10/29 AMATEUR RADIO
FALMOUTH 55 1155 AM 10/29 FMH AWOS
BOURNE 55 1210 PM 10/29 PUBLIC
2 NW CHATHAM 52 451 PM 10/29 CQX ASOS

...BRISTOL COUNTY...

BARNSTABLE 64 1158 AM 10/29 HAM RADIO
FAIRHAVEN 62 126 PM 10/29 HAM RADIO
3 NW NEW BEDFORD 61 453 PM 10/29 EWB ASOS
4 ESE TAUNTON 47 152 PM 10/29 TAN ASOS

...DUKES COUNTY...

3 S VINEYARD HAVEN 68 253 PM 10/29 MVY ASOS

...ESSEX COUNTY...

LAWRENCE 68 518 PM 10/29 AMATEUR RADIO
3 NE LAWRENCE 61 233 PM 10/29 LWM ASOS
5 WNW BEVERLY 59 600 PM 10/29 BVY ASOS
LYNN 51 201 PM 10/29 SPOTTER

...HAMPDEN COUNTY...

2 ENE WESTFIELD 51 255 PM 10/29 BAF ASOS
SPRINGFIELD 47 255 PM 10/29 CEF ASOS

...MIDDLESEX COUNTY...

2 WSW BEDFORD 67 555 PM 10/29 BED ASOS
WAKEFIELD 62 341 PM 10/29 AMATEUR RADIO
PEPPERELL 60 1114 PM 10/29 SPOTTER
NORTH CAMBRIDGE 54 302 PM 10/29 SPOTTER
MARLBOROUGH 46 425 PM 10/29 SPOTTER

...NANTUCKET COUNTY...					
2 ESE NANTUCKET	60	153	PM	10/29	ACK ASOS
...NORFOLK COUNTY...					
WRENTHAM	77	310	PM	10/29	HAM RADIO
3 SSW MILTON	74	332	PM	10/29	MQE ASOS
BROOKLINE	69	354	PM	10/29	CLAY CENTER
RANDOLPH	60	835	PM	10/29	SPOTTER
1 ENE NORWOOD	54	530	PM	10/29	OWD ASOS
...PLYMOUTH COUNTY...					
MATTAPOISETT	76	103	AM	10/30	HAM RADIO
4 SW PLYMOUTH	56	452	PM	10/29	PYM ASOS
BRIDGEWATER	55	134	PM	10/29	PUBLIC
...SUFFOLK COUNTY...					
1 N EAST BOSTON	62	354	PM	10/29	LOGAN ASOS
...WORCESTER COUNTY...					
MILFORD	67	148	PM	10/29	SPOTTER
3 WNW WORCESTER	61	631	PM	10/29	ORH ASOS
SOUTHBRIDGE	54	315	PM	10/29	SPOTTER
STERLING	50	339	PM	10/29	SPOTTER
NEW HAMPSHIRE					
...CHESHIRE COUNTY...					
2 SE JAFFREY	53	455	PM	10/29	AFN ASOS
...HILLSBOROUGH COUNTY...					
3 SSE MANCHESTER	63	822	PM	10/29	MHT ASOS
NASHUA	47	651	PM	10/29	ASH AWOS
RHODE ISLAND					
...ANZ236...					
1 SSW NAYATT	71	324	PM	10/29	NOS CPTR1
3 ENE KIEFER PARK	63	400	PM	10/29	NOS QPTR1
2 SSW NAG CREEK	62	254	PM	10/29	NOS PTCR1
3 SSE FOXES HILL	53	630	PM	10/29	NOS FOXR1
...BRISTOL COUNTY...					
WARREN	73	410	PM	10/29	SPOTTER
BARRINGTON	61	1239	PM	10/29	HAM RADIO
...KENT COUNTY...					
2 NNW WARWICK	59	451	PM	10/29	PVD ASOS
...NEWPORT COUNTY...					
JAMESTOWN	62	654	PM	10/29	POTTER COVE
4 NE NEWPORT	59	113	PM	10/29	UUU ASOS
MIDDLETOWN	52	315	PM	10/29	SPOTTER
...PROVIDENCE COUNTY...					
NORTH PROVIDENCE	52	506	PM	10/29	SPOTTER
NORTH FOSTER	51	315	PM	10/29	NWS COOP
RUMFORD	46	210	PM	10/29	SPOTTER

...WASHINGTON COUNTY...

WESTERLY 86 244 PM 10/29 CWOP
2 SSE WESTERLY 69 338 PM 10/29 WST ASOS

*****SUSTAINED WIND*****

LOCATION	WIND SPEED MPH	TIME/DATE OF MEASUREMENT	COMMENTS
----------	----------------------	--------------------------------	----------

CONNECTICUT

...HARTFORD COUNTY...

1 WNW WINDSOR LOCKS 40 708 PM 10/29 BDL ASOS
3 SE HARTFORD 35 258 PM 10/29 HFD ASOS
BURLINGTON 35 422 PM 10/29 SPOTTER

...WINDHAM COUNTY...

3 NE WILLIMANTIC 38 1247 PM 10/29 IJD ASOS

MASSACHUSETTS

...ANZ232...

10 N FISHERS LANDING 47 350 PM 10/29 BUOY 44020

...ANZ250...

8 SSE BASS ROCKS 43 304 PM 10/29 BUOY 44029

...ANZ251...

8 NNE MINOT 45 250 PM 10/29 BUOY 44013

...BARNSTABLE COUNTY...

EAST FALMOUTH 48 200 PM 10/29 SPOTTER
2 NW CHATHAM 38 305 PM 10/29 CQX ASOS
2 NE HYANNIS 36 347 PM 10/29 HYA ASOS
PROVINCETOWN 32 1055 AM 10/29 PVC AWOS

...BRISTOL COUNTY...

3 NW NEW BEDFORD 43 421 PM 10/29 EWB ASOS
FAIRHAVEN 35 126 PM 10/29 HAM RADIO

...DUKES COUNTY...

3 S VINEYARD HAVEN 45 109 PM 10/29 MVY ASOS

...ESSEX COUNTY...

5 WNW BEVERLY 46 942 PM 10/29 BVY ASOS
3 NE LAWRENCE 33 104 PM 10/29 LWM ASOS

...HAMPDEN COUNTY...

2 ENE WESTFIELD 32 442 PM 10/29 BAF ASOS

...MIDDLESEX COUNTY...

2 WSW BEDFORD 45 555 PM 10/29 BED ASOS

...NANTUCKET COUNTY...

2 ESE NANTUCKET 43 417 PM 10/29 ACK ASOS

...NORFOLK COUNTY...

WRENTHAM 50 310 PM 10/29 HAM RADIO
3 SSW MILTON 48 522 PM 10/29 MQE ASOS
1 ENE NORWOOD 36 530 PM 10/29 OWD ASOS
RANDOLPH 30 835 PM 10/29 SPOTTER

...PLYMOUTH COUNTY...

PLYMOUTH 45 914 AM 10/29 PUBLIC
4 SW PLYMOUTH 39 511 PM 10/29 PYM ASOS

...SUFFOLK COUNTY...

1 N EAST BOSTON 41 1250 PM 10/29 LOGAN ASOS

...WORCESTER COUNTY...

3 WNW WORCESTER 40 631 PM 10/29 ORH ASOS
MILFORD 35 1250 PM 10/29 SPOTTER

NEW HAMPSHIRE

...HILLSBOROUGH COUNTY...

3 SSE MANCHESTER 38 822 PM 10/29 MHT ASOS
NASHUA 32 651 PM 10/29 ASH AWOS

RHODE ISLAND

...ANZ236...

1 SSW NAYATT 53 548 PM 10/29 NOS CPTR1
3 ENE KIEFER PARK 49 442 PM 10/29 NOS QPTR1
2 SSW NAG CREEK 44 212 PM 10/29 NOS PTCR1
3 SSE FOXES HILL 39 430 PM 10/29 NOS FOXR1

...KENT COUNTY...

2 NNW WARWICK 41 450 PM 10/29 PVD ASOS

...NEWPORT COUNTY...

JAMESTOWN 44 654 PM 10/29 POTTER COVE
4 NE NEWPORT 37 113 PM 10/29 UUU ASOS
MIDDLETOWN 35 315 PM 10/29 SPOTTER

...PROVIDENCE COUNTY...

BURRILLVILLE 48 216 PM 10/29 GENERAL PUBLIC

...WASHINGTON COUNTY...

WESTERLY 64 244 PM 10/29 CWOP

\$\$

KJH/KAB/LF



MICROBURST 10/30/2012

As Superstorm Sandy moved ashore on Monday evening October 29, 2012, her



wrath was not yet complete. Sandy's girth was large thus her impacts were felt and realized well away from her center. Her initial impacts were

coastal hazards, strong winds and flooding, but after Sandy came ashore blizzard conditions were felt over West Virginia while severe thunderstorms occurred over Massachusetts. On the evening of Tuesday, October 30, 2012, while the center of Sandy was over the state of Pennsylvania, thunderstorms moved across Southeast Massachusetts with damaging results. A Microburst occurred in Wareham, MA with effects first felt in Falmouth, MA. Following is a Public Information Statement that was issued by the National Weather Service in Taunton. This statement was compiled by the survey team after the storm survey was completed:

Public Information Statement
National Weather Service Taunton Ma
451 PM EDT Wed Oct 31 2012

...Microburst /Straight Line Wind Damage/ Confirmed in Wareham in Plymouth County MA...

Location: Wareham in Plymouth County MA

Date: October 30, 2012

Estimated time: 7:40 to 7:45 pm EDT

Estimated maximum wind speed:

60-70 mph w/ pockets of 80-90 mph

Maximum path width: 2 miles

Path length: 2 miles

Beginning lat/lon: 41.75N / 70.66W

Ending lat/lon: 41.76N / 70.72W

Fatalities: 0

Injuries: 0

...Summary...

The National Weather Service in Taunton, MA has confirmed a Microburst /straight line wind damage/ in Wareham located in Southern Plymouth County, MA on the evening of Tuesday, October 30, 2012.

A swath of 60 to 70 mph wind gusts occurred in that region with pockets of 80 to 90 mph gusts. The hardest hit locations in Wareham were Swifts Beach, Pinehurst and Onset Bay Marina.

The survey team determined that a damage area of 2 miles in length and 2 miles in width occurred with 3 discrete areas affected in Wareham: Swifts Beach, Pinehurst and the Onset Bay Marina. Based on radar signatures and eyewitness accounts, thunderstorm wind damage initiated in Falmouth, MA around 725 pm, and then became more intense over the Wareham area around 740 pm.

The survey team determined that approximately 100 trees were significantly damaged or knocked down in Wareham, with many bringing down wires. The initial downdraft occurred in Swifts Beach then headed north northeast over Pinehurst toward Narrows Road.

In the Swifts Beach area there were numerous downed trees with one tree impaling the roof of a house on Sherman Street. Other points of interest in the Swifts Beach area were located on Pilgram Avenue, Judson Street, Pine Street and Swifts Beach Road. Trees were also downed near the Fire Department on Main Street located in downtown Wareham.

Trees were also downed on Church Avenue at the Redwood Park Elderly Complex. In the Pinehurst area of Wareham, downed trees were evident on Franconia Avenue and Pinehurst Drive. On Narrows Road a couple of trees were knocked down across the road.

In the Onset Bay Marina area, boats that were stored on a 3 story tier were tilted in their racks. A sailboat in the marina was tilted 90 degrees in the wind, with the mast parallel with the water for approximately 2 minutes before righting itself. Additionally, 2 boats of unknown size were reported sunk in the downdraft.

In the Nanumett Heights section of Point Independence, which is part of Onset, significant tree damage was confirmed on Prospect Street and Webster Street.

A public wind gust observation of 85 to 90 mph from the south southwest was reported from Onset Beach. The time of the observation was approximately 740 pm.

The survey team and eyewitness accounts observed much of the tree damage to be oriented in a south to north direction, which confirmed a Microburst.

Much thanks to the local Police and Fire Departments for their assistance in this storm survey.

For reference:

A Microburst is a convective downdraft with an affected outflow area of less than 2 1/2 miles wide and peak winds lasting less than 5 minutes. Microbursts may induce dangerous horizontal/vertical wind shears, which can adversely affect aircraft performance and cause property damage. Straight-line winds are generally any wind that is not associated with rotation, used

mainly to differentiate them from tornadic winds.

\$\$

Storm Survey Team:

Hayden Frank
Kimberly Buttrick

WE WELCOME

A new Cooperative Weather Observing station was established in Jaffrey, NH back in May 2011. This site was established at the Silver Ranch Airpark at Jaffrey Airport. The husband and wife team of Lee and Harvey Sawyer manage the Airpark and take daily weather observations.

We welcome Christopher Gray, of Ashfield, MA, who began taking observations from his hometown on June 1, 2012.

We welcome Doug Alwine of Weare, NH who began taking observations from his home on June 1, 2012.

And We welcome the Department of Conservation & Recreation Mohawk Trail/Savoy Mountain State Forest Complex located in Charlemont, MA. Employees at the Mohawk State Forest Complex began taking observations on July 1, 2012.

WE RECOGNIZE

Thanks to all of you for your dedication and interest in weather data collection. Your daily efforts are much appreciated. When it comes to weather, you are the eyes and ears of your community. Look ahead to view a number of fellow Coop Observers that have received length of service awards over the past 10 months. Those not pictured but who received awards are as follows:

Stephen Preece
New Bedford Water Department
Quittacas Water Treatment Plant
– East Freetown, MA
-30 year Length of Service award

Michael Iacono
Blue Hill Observatory
– Blue Hill, MA
-25 year Length of Service award

Michael Aksten
Pennichuck Water Works
– Nashua, NH
-25 year Length of Service award

Roger St. Laurent
Pennichuck Water Works
– Nashua, NH
-25 year Length of Service award

Jeff Mangum
U.S. Army Corps of Engineers
– Birch Hill Dam, MA
-20 year Length of Service award

Alan Mackiewicz
City of New Britain
Board of Water Commissioners
– New Britain, CT
-20 year Length of Service award

Dave Texeira
New Bedford Water Department
Quittacas Water Treatment Plant
– East Freetown, MA
-15 year Length of Service award

Bill McCourt
Lawrence Hydroelectric Associates
– Lawrence, MA
-10 year Length of Service award

David Foote
Pennichuck Water Works
– Nashua, NH
-10 year Length of Service award

Jason Stover
Pennichuck Water Works
– Nashua, NH
-10 year Length of Service award

Matt Crane
Pennichuck Water Works
– Nashua, NH
-10 year Length of Service award

Melissa Esquivel
Pennichuck Water Works
– Nashua, NH
-10 year Length of Service award

William Nelson
Pennichuck Water Works
– Nashua, NH
-10 year Length of Service award

Timothy Morrissette
NWS Meteorological Observatory
– Chatham, MA
-5 year Certificate of Recognition

Bill Cardillo
Lawrence Hydroelectric Associates
– Lawrence, MA
-5 year Certificate of Recognition

Mike Pinard
Manchester Water Works
– Manchester, NH
-5 year Certificate of Recognition

Andy Rheume
Pennichuck Water Works
– Nashua, NH
-5 year Certificate of Recognition

Rick Primeau
Pennichuck Water Works
– Nashua, NH
-5 year Certificate of Recognition



The Middleboro Water Department in Massachusetts received a 125 Year Honored Institution Length of Service Award. Nicole Belk, Service Hydrologist with the National Weather Service (NWS) in Taunton, presented the award. Accepting this milestone achievement are employees of the Middleboro Water Department. Pictured from left to right are: Donna Jolin – Clerk, Mike Bumpus – Operator, Nicole Belk of the NWS presenting the award, Jerry Shaughnessy – Operator, Louis Ponte – Head Operator and Joe Silva – Superintendent. Lou Ponte also received a 15 Year Length of Service Award.



Louis Ponte (right), Head Operator at the Middleboro Water Department, MA received a 15 Year Length of Service Award for his years of weather observing from the Middleboro Pumping Station. Lou, also known as The Big Louison, accepts this award with his co-worker, Donna Jolin by his side.



The University of Massachusetts (UMASS) Cranberry Station in East Wareham, MA (pictured above) is home to a historical climate site that has been collecting and recording daily temperature and precipitation measurements for 100 years! Carolyn DeMoranville, Station Director (pictured below right), accepted the 100 year Honored Institution Length of Service Award from Kim Buttrick (left), NWS Taunton's Cooperative Program Manager.





100 years of weather data collected from the East Wareham Cranberry Experiment Station was achieved by the dedicated employees over the century who took the daily observations. In recent years, Deb Cannon, Clerk (above left), and James O'Connell, Departmental Assistant (below left), have continued this tradition. Deb received a 25 year Length of Service award for her years of weather observing while James received a 10 year Length of Service award. Carolyn DeMoranville, Station Director, supports this long tradition of weather data collection. She is pictured above center accepting the 100 year Honored Institution Length of Service Award for the East Wareham Cranberry Experiment Station. Kim Buttrick of the NWS presented the awards.





Charles B. Strickland (pictured left) of Marlow, NH, received a Special Service Award in recognition and appreciation for his significant services rendered to the National Weather Service. Charles served 34 years as a Cooperative Weather Observer from his community in Marlow, NH. His daily temperature and precipitation reports proved valuable over the years – especially given his proximity to the Ashuelot River. Charles accepted this prestigious award with his dog Ellie by his side. Much thanks to Charles for his years of service!

Ware Water Works in Ware, MA received a 75 year Honored Institution Length of Service Award. Mark Lussier (left), Operator, accepted the award. Donald Dunbar (right), Foreman, is the recipient of a 25 year Length of Service Award for his years of observing and recording precipitation measurements from Ware.





John R. Anderson (pictured 2nd from right) of Walpole, MA received the prestigious Edward H. Stoll Award for 50 years of service as a Cooperative Weather Observer. Robert M. Thompson (left), Meteorologist-in-Charge with the National Weather Service in Taunton and Kimberly Buttrick (right), Cooperative Program Manager presented the award. John's wife of 40 years, Susan, stands by his side. We honored John during a luncheon at the Horse and Carriage House located in nearby Norwood, MA.



Steve Duchesne (pictured left), Superintendent of Operations and Safety at Lowell Regional Water Utility received a 25 year Length of Service Award. Steve is part of a proud tradition of weather observing from the city of Lowell, MA where weather records date back to 1826! The Operators at the Lowell Regional Water Utility have contributed to this very long standing record since 1978. Way to go Lowell, MA!



Charles Kennedy (above left), Assistant Superintendent at the New Bedford Water Department Quittacas Water Treatment Plant received a 20 year Length of Service Award from Kim Buttrick (above right). Charles is part of a long tradition of weather observing from the Quittacas Water Treatment Plant located in East Freetown, MA. Weather records from the plant date back to 1951.



Edward Greenough (left), Project Manager at the U.S. Army Corps of Engineers – West Thompson Lake, CT, received a 20 year Length of Service Award while Park Ranger Michelle Dwyer (right) received a 10 year Length of Service Award.



Power Plant Engineers (pictured left) at Lawrence Hydro-Electric Associates (also known as The Essex Company) received Length of Service Awards for their contributions to a long standing climate record in Lawrence, MA that dates back to 1856! Carey Sullivan (left) received a 20 year Length of Service Award while Pat Donahue (right) received a 10 year Length of Service Award. The mighty Merrimack River is in the background.



Employees of The Town of Marblehead Water Department are recipients of Length of Service Awards for their contributions to the climate record in Marblehead, MA. Pictured from left to right are: Amy McHugh, Assistant Superintendent, William Haskell, Foreman, receiving a 20 year Length of Service Award, Mike Marsters, Mechanic Pipe Fitter, receiving a 5 year Certificate of Recognition and Greg Burt, Water Technician, receiving a 20 year Length of Service Award.



James West (pictured right), Park Ranger at the U.S. Army Corps of Engineers – Tully Lake, MA, received a 15 year Length of Service award. Kim Buttrick (pictured left) presented the award.



Jeff Aborn (right), of Staffordville, CT received a 10 year Length of Service Award for his years of observing and recording temperature and precipitation measurements from his backyard.



Michael S. Jezak (pictured left) received a Certificate of Recognition for 5 years of dedication as a weather observer from Tiverton, RI. Weather observing is a family affair in the Jezak family. Mike's son, Michael W. Jezak, is a Cooperative Weather Observer in Surry, ME.



Operators at the Milford Water Company in Milford, MA received milestone awards. Lead Operator Jeff Papuga (pictured left) and Operator Kevin Kellett (pictured right) both received 10 year Length of Service Awards from Kim Buttrick. The Milford Water Company, located at the head of the Charles River, has weather records dating back to 1930. Much thanks to Jeff and Kevin for carrying on the tradition!



Eric Chouinard, Park Ranger at the U.S. Army Corps of Engineers – Otter Brook Lake, NH, received a Certificate of Recognition for 5 years of dedication as a weather observer at the Otter Brook Project.



Thanks to all of You!

CONTACT INFORMATION

National Weather Service
445 Myles Standish Blvd.
Taunton, MA 02780

508-823-2262 or 508-823-1983 or
800-243-1686
Fax: 508-823-2321

Email: Kimberly.Buttrick@noaa.gov

William.Simpson@noaa.gov

Web: <http://www.erh.noaa.gov/box/>

Facebook: <https://www.facebook.com/U.S.NationalWeatherService.Boston.gov>

Twitter: <https://twitter.com/NWSBoston>