

A Southern New England Cooperative Weather Observer Newsletter

May 2017

IT'S BEENAWHILE

It has been awhile since the last issuance of the Weather Eye. In fact, the last issuance was in January 2015 and a lot has happened since then, especially in the recognition and retirement department. Sadly we lost a good man in the weather and climate community, Mr. David M. Taylor. Dave dedicated his life to weather and climate. For more about Dave's life, good friends and colleagues wrote a story about him for this newsletter. You can find it in the recognition section.

LEAK CHECKS

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. Best months to check would be April, then again in October.

PREVENT INNERTUBE LEAKS

During the change in seasons from winter into spring the forecast sometimes calls for rain. We respond by putting the innertube back into the overflow can with funnel attached. But don't fall prey to Mother Nature's teasing in early spring. Why? Editor: Kimberly Buttrick

More often than not, in early spring the overnight low temperatures can fall to near or below freezing. This could potentially cause the rain in the innertube to freeze. resulting in your innertube cracking. Moral of the story: the best time to use your innertube and funnel with the rain gauge is during the months of May through October. But one should still be mindful that during the months of May, September and October, the morning low temperatures can fall near or below freezing. The primary cause of cracking in the innertubes is from liquid precipitation that freezes and then melts and re-freezes. So, if the forecast calls for low temperatures in your area to fall near or below freezing, it is best to bring the innertube and funnel inside and let the overflow can collect the precipitation.

<u>PRECIPITATION FOR PRESENT</u> <u>WEATHER MEANS AT LEAST A</u> <u>TRACE</u>

If you observe drizzle, rain or snow at the time of your observation, you would report at least a Trace of precipitation.

If you observe some variance of snow, be it light, moderate, heavy or even sleet at the time of your observation, you would record at least a Trace of precipitation <u>and</u> at least a Trace of snowfall.

If you observe flurries at the time of your observation or during the 24-hour observation period, you would report at least a Trace of precipitation <u>and</u> at least a Trace of snowfall.

MARCH 14, 2017 NOREASTER

The Nor'easter of March 14, 2017 brought a multi-hazard event to Southern New England, which included a potpourri of wintry precipitation types from snow to sleet to rain. Mainly snow fell outside of the I-495 corridor while along the coastal plain, snow fell at the onset but then soon changed to rain. In between, snow at the onset changed to sleet for a number of hours before changing to rain.

The following morning some observers weren't sure how to report their liquid from their rain gauge. The confusion had to do with the multiple precipitation types that fell into the gauge. This is just a reminder that when you report your 24-hour liquid measure, you report what is in the rain gauge, regardless of the precipitation types. Thus many observers along the south coast, such as at Block Island, Tiverton, New Bedford, Rochester, East Wareham, Edgartown, Woods Hole, East Sandwich, Hyannis and West Harwich reported a 24hour liquid measure of 1.40 to as much as 2.40 inches. And in that liquid measure were melted snow, sleet and plain rain. And during that 24-hour observation period, snow had fallen and accumulated but at the time of observation had melted down to a Trace to nothing at all remaining on the ground. So no matter what wintry mix falls within your 24-hour observation period, you melt it all down and report it as your liquid measure.

PUBLIC INFORMATION STATEMENT

After major events, whether heavy snow or heavy rain, we would like to include your storm total into our Public Information Statement (PNS). If you would like to have your station included in this report, you can submit your storm total through our website by going to:

http://www.weather.gov/box/

On the lower left of the home page is a tile titled, "Submit Storm Report." After you click on that, you'd fill in your information and for your affiliation you'd choose, "COOP Observer." This online report will automatically get ingested into the PNS. The best time to report an event total, whether heavy rain or snowfall, is soon after the event ends. We don't have a set schedule for the PNS product as it is an event driven product and can be issued many times a day, especially during an ongoing Nor'easter. As for your Coop Observations, you'd continue to do them every 24 hours. Event totals may be different than your 24-hour Coop totals. But your 24-hour Coop totals should add up to an event total. Also, for an ongoing event, such as a Hurricane dumping lots of rainfall or a Nor'easter dumping lots of snow, you can report interim totals during the event, say every 6 hours, via "Submit Storm Report." We really appreciate these interim totals. They help the forecasters with warnings and advisories and whether to upgrade or downgrade them.

DEMOCRACY IN CLIMATE

Let every rain drop and every snow flake get representation on your climate record. Say you are away from home for a few days or perhaps you work at an institution and your co-worker "forgot" to take an observation one day. Not to worry. Measure what is in the rain gauge and report the value as a multi-day precipitation measurement. If you know it snowed during your absence or during your co-worker's hiatus, you'll have to report "M" for snowfall, but you can measure what remains on the ground. You can also do a multi-day temperature measurement. Just measure the multi-day high and low and record the current temperature at the time of your observation. In the remarks section of your B91 form, note it is a multi-day measurement.

We prefer a daily observation at your designated time, but we do understand that life and circumstances can interfere. So when this happens, don't discount any rain drops or snowflakes in your rain can. And certainly do not toss out the contents before measuring! Let every rain drop and snow flake have a voice in your climate record.

JUST SAY NO TO THE WIRELESS <u>TIPPING BUCKET – or at least pause</u> before accepting its measurement as truth!

Do you have extra equipment at your site, like a Davis, Young or RainWise system with a heated tipping bucket (TB) that measures precipitation? You cannot rely on these heated TBs in the winter, or at other times during the year. You still need to use your tried and true manual Standard Rain Gauge (SRG). It may be old fashioned but the SRG is the Cadillac of the climate record for precipitation. So why not rely on the heated TB, you wonder? The heated TBs typically freeze up in winter. And in summer the TBs can get clogged with debris or beehives. Thus the TBs are notorious for under-reporting precipitation creating a dry bias for your location. So, if you have a heated TB, you must consider it as back-up equipment to your primary SRG.

Perhaps your site is not staffed on weekends and you rely on your state of the art heated TB to give you a weekend precipitation total. It is better to rely on your SRG on Mondays. Just go to your SRG and measure its contents and report your precipitation on Monday as a 3-day total. It is better to have an accurate multi-day total from your SRG, than nothing or under-reporting from the heated TB.

Don't litter your climate record with less than accurate data from some fancy state of the art heated TB. Trust your SRG to give you the best in precipitation reporting throughout the year! Your precipitation climate record depends on it!

U-TUBES ANYONE?

This does not refer to YouTube, the website found on the internet. Rather it refers to a mercury filled tube that measures the maximum and minimum (max/min) temperature. Thus it is a max/min thermometer in the shape of a U and called simply a U-Tube thermometer. These max/min thermometers are also known as Six's Thermometers – invented by an Englishman named James Six in 1780.

Many of these U-Tube max/min thermometers are made by Taylor Instruments. Do you have a U-Tube thermometer that you would like to donate or return to your NWS in Taunton? If so, please let us know.

HISTORICAL RECORDS

Historical records for all Cooperative Weather Observing sites are available at the National Centers for Environmental Information (NCEI), in Asheville, North Carolina. (NCEI was formerly called the National Climatic Data Center.) NCEI can be reached by telephone at (828) 271-4800 or online at: <u>https://www.ncei.noaa.gov/</u>

Historical records can also be accessed at the Northeast Regional Climate Center (NERCC) in Ithaca, New York. They can be reached by telephone at (607)-255-1751 or online at: <u>http://www.nrcc.cornell.edu/</u>

Climate information can also be accessed via an applied climate information system provided by NERCC:

http://climodtest.nrcc.cornell.edu/

This climate information system allows one to query climate data in different ways, whether for a single station or multi-stations. Here is a list of what you can query:

- Almanac Data for a Day
- Activity Planner for a Day
- Daily Data for a Month
- Daily Data Listing
- Daily Degree Days
- Calendar Day Summaries
- Monthly Summarized Data
- Seasonal Ranking
- Frost/Freeze Summaries
- Daily/Monthly Normals
- Temperature Graph
- Accumulation Graph

And yet another avenue to query climate data from Coop sites as well as Automated Service Observing Systems (ASOS) is through what is called NOAA Online Weather Data (NOWData). NOWData is an applied climate information system also complements of NERCC.

NOWData can be accessed via WFO Taunton's website at:

http://w2.weather.gov/climate/xmacis.php? wfo=box Here is a list of what is available to query in NOWData for Coop and ASOS sites:

- Daily data for a month
- Daily almanac
- Monthly summarized data
- Calendar day summaries
- Daily/monthly normals
- Climatology for a day
- First/last dates
- Temperature graphs
- Accumulation graphs

NWS TAUNTON NEWSLETTER LINK

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

https://www.weather.gov/box/prevailing_wind §





WE SAY GOODBYE

The following Coop Observers have retired after many years of recording climate at their stations. We truly appreciate their service and contributions to climate:

Robert Lautzenheiser of Reading, MA -56 years of service

Richard Leavitt of Francestown, NH -35 years of service

William E. Houghton of Walpole, NH -35 years of service

Jean Castles of Fitzwilliam, NH -35 years of service

Raymond Whitley of Newburyport, MA -30 years of service

Deb Cannon, Clerk with the University of Massachusetts East Wareham Cranberry Experiment Station in East Wareham, MA -28 years of service

Carl Sawyer, Research Associate with the University of Rhode Island, Department of Plant Sciences at the Kingston, RI campus -28 years of service

Peter Izyk, Civil Engineer with the Department of Conservation and Recreation – Quabbin Section in Belchertown, MA -27 years of service

Alan Mackiewicz, Head Caretaker 3 at Shuttle Meadow Reservoir, CT -24 years of service

Guy Bettencourt, Plant Manager and Bobby Dermody, Sewage Treatment Plant Operator with the Bridgewater Correctional Complex Water Pollution Control Facility in Bridgewater, MA -over 20 years of combined service

Gregory Cox, Fire Chief from East Hawley, MA

We welcome our newest Coop Observers

be the daily eves and ears for weather in

who have stepped forward and are willing to

James Phelan of Coventry, RI

WE WELCOME

their communities:

Russ Jolly of Rowe, MA

Kristin Forester of Nantucket, MA

John Breunig and crew at the Block Island Water Company, RI

Michael Dailey of Enfield, CT

Robert Nelson of Reading, MA

Greg Forrister of Fitchburg, MA

Jack Wyatt of West Harwich, MA

Butch (Gilbert) Harrison and crew at the New Bedford Wastewater Treatment Facility in New Bedford, MA



WE RECOGNIZE

Thanks to all of you for your dedication and interest in weather data collection. Your daily efforts are much appreciated. Look ahead to view a number of fellow Coop Observers that have received length of service awards and special service awards. Those not pictured but who received awards are as follows:

U.S. Army Corps of Engineers - West Thompson Lake, CT -50 year Honored Institution Award

Richard Leavitt – Francestown, NH -35 year Length of Service Award

Thomas Mattus - Ashburnham, MA -30 year Length of Service Award

Edward Greenough Project Manager at U.S. Army Corps of Engineers - West Thompson Lake, CT -25 year Length of Service Award

Mark Holley

Water Facilities Superintendent at Town of Greenfield Water Facilities Division – Greenfield, MA -20 year Length of Service Award

David Camden

Caretaker 2 at City of New Britain Board of Water Commissioners - Shuttle Meadow Reservoir, CT -20 year Length of Service Award Jeff Papuga Lead Operator at Milford Water Company – Milford, MA -15 year Length of Service Award

Michelle Cucchi

Park Ranger at U.S. Army Corps of Engineers – West Thompson Lake, CT -15 year Length of Service Award

Kathleen Woods

- Beverly, MA -10 year Length of Service Award

Paul Zilinski

Operations Supervisor at Town of Greenfield Water Facilities Division – Greenfield, MA –10 year Length of Service Award

Forrest Herald

Plant Operator – Potable Water at Town of Greenfield Water Facilities Division – Greenfield, MA -10 year Length of Service Award

Todd Little

Plant Operator – Potable Water at Town of Greenfield Water Facilities Division – Greenfield, MA -10 year Length of Service Award

James Smith

Chief Mechanic – Town of Barnstable Water Pollution Control Division of the Department of Public Works

– Hyannis, MA

-10 year Length of Service Award

DAVID M. TAYLOR

August 24, 1937 – November 5, 2014

A LIFE IN WEATHER

Written by Linda Hutchins and Douglas Webster with edits by Robert Lautzenheiser



Late in 2014 we lost an icon in the local weather community when David M. Taylor passed away at the age of 77. David loved the weather from an early age and reached the pinnacle of being named Massachusetts State Climatologist in 1982, with his longtime friend Robert Lautzenheiser as Associate State Climatologist.

Perhaps it was fate that David was born the year prior to the Great Hurricane of 1938 and raised in Massachusetts. He developed an interest in the weather from his mother. He earned a B.S. in Meteorology from MIT in 1959, and while at MIT, met his wife, Ann, who was attending Northeastern University. Immediately following his graduation, David served in the U.S. Air Force until 1966, with his bride Ann traveling along with him. While in the Air Force, David served all over the world, with duty stations including Hanscom Air Force Base in Bedford, Massachusetts; Bangkok, Thailand; and Belleville, Illinois. He told stories of forecasting golf weather for President Johnson in Washington, D.C. He left the Air Force as a Captain when Ann was expecting their first of two daughters, despite the Air Force's pleas for him to stay. Nancy and Suzi were too important to him to be put through the military life.

David and Ann returned to Massachusetts to raise their family, settling in North Reading. David's civilian weather career began when he joined Northeast Weather Services in 1967, then located at Hanscom Field in Bedford. Northeast Weather Services joined forces with Weather Services Corporation of Boston in 1974 becoming Weather Services Corporation (WSC) in Bedford. WSC grew substantially during the next few decades, employing as many as 35 meteorologists. WSC was acquired by DTN in 1999 which was acquired again by Telvent in 2007 and still again by Schneider Electric in 2011. The core of WSC's weather operation was moved to offices in Minneapolis in 2004 but the weather commodity and agriculture division that David worked for remained at the Schneider Electric office in Andover, MA.

David's Northeast Weather Services journey began as a staff meteorologist in 1967 after which he was promoted to a senior meteorologist/climatologist by the early 1970s. After the merger with WSC, Dave joined the new commodity weather section of the company providing weather consultations and also began to produce climate information for many of the various weather and climate needy customers of WSC. David became WSC's climatologist during the 1970s continuing through 2004 when he retired from WSC. One of Dave's best customers was a Georgia peanut farmer for which he provided a daily forecast and past rainfall data right up until his last year (David could always rely on a shipment of peanuts for Christmas!) While in his role as a weather consultant, David mentored many up and coming meteorologists, and was well known throughout the professional community. It was also during these years that David established his own network of weather observers, who would mail him monthly weather reports. David also kept data records from many of his meteorological colleagues at WSC, checking on how much rain or snow fell, or how cold it was that day. He became a virtual clearinghouse for New England weather data, calculating and maintaining record events by hand, and drawing snowstorm contour maps long before the days that desktop computers and the internet automated these tasks.

While at WSC David took on the task of Cooperative (Coop) Weather Observer for the Bedford, MA station in the National Weather Service (NWS) Coop network. The original owner of Northeast Weather Services, John Wallace, had begun a Coop station in Lexington, MA in 1951 which was then moved to Hanscom Field in 1958, finally to Great Rd., Bedford in 1967. While the official observations were taken at midnight each day, David took a second reading at 7am that was sent to the NWS for inclusion in the southern New England daily hydrologic observation product.

In 1982, David was named Massachusetts State Climatologist by the National Climatic Data Center, NWS Eastern Region, and the Massachusetts Water Resources Commission, taking over the position from his neighbor and long-time friend, Robert Lautzenheiser. The two men collaborated as volunteer State Climatologists for the rest of David's life, preparing a monthly weather summary for Massachusetts that was mailed to a list of over 200 subscribers. David also exchanged weather data with the Massachusetts Department of Conservation and Recreation, from their respective monitoring networks. He enjoyed attending Southern New England Weather Conferences and delighted in socializing with his colleagues, but his passion was always for the weather. When David's health was failing and he was hospitalized in his final year, his major objection was that the monthly weather mailing wouldn't get sent out!

Over the course of many years, David Taylor and Robert Lautzenheiser amassed a substantial collection of weather reports from both the NWS Coop Program and their own observer network. When David and Ann moved to Lunenburg, Massachusetts in 2007, the weather file cabinets and bookshelves occupied a bay of their garage, and older records were relegated to a shed in the yard. David maintained an office in the basement of the house, surrounded by piles of weather records and of course had a weather station in the front yard, where measurements were recorded daily, come hell, high water, or ice storm. As his health declined, several of David's dedicated colleagues helped inventory the collection of weather records and plan for their disposition. Original records from the start of the Weather Bureau in the 1800s were found in the shed!

David's career spanned pen and ink correspondence to the internet. He kept pace with the technology and relished the availability of satellite images and internet data availability. He truly lived a life committed to the weather from his earliest memories, and served his country well. He is and will be greatly missed.





LOCAL ROCK STARS OF CLIMATE AND WEATHER ARE RECOGNIZED

On Wednesday, October 28, 2015, two of our venerable "rock star" veterans of climate and weather were both presented the Benjamin Franklin Length of Service Award for serving 55 years as a Cooperative Weather Observer. This milestone award was presented to Robert Lautzenheiser of Reading, MA and Robert Skilling of Hingham, MA. Between these two Bobs



they have over 100 years of recorded climate data between them! On this cool October rainy day in Hull, MA with a stiff northeast wind blowing in across the Atlantic Ocean, a small group gathered at The Red Parrot – a Nantasket Beach Restaurant – to celebrate the Bobs. Additionally, we recognized Bob Lautzenheiser's birthday because the following day, October 29, 2015, he turned 100 years old!

Pictured above are Robert Lautzenheiser (left) and Robert Skilling (right) in front of Nantasket Beach in Hull, MA. Picture taken by Craig F. Walker/Boston Globe Staff

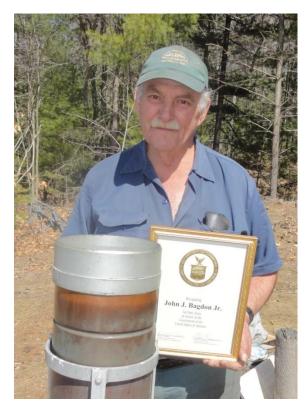
Those in attendance were Bob Lautzenheiser and his wife Dorothy, Bob Skilling and his wife Beverly, good friends and colleagues Doug Webster and Mark Duff. To present the awards were Robert M. Thompson, Meteorologist-in-Charge at NWS Taunton, Kimberly A. Buttrick, Coop Program Manager at NWS Taunton, and Ellen L. Mecray, NOAA's Regional Climate Services Director, Eastern Region.

To document, photograph and video the event some local media outlets graciously sent some staff. The Boston Globe sent reporter Peter Schworm and photographer Craig Walker. WATD in Marshfield sent David Skill. Michael Page of New England Cable News was present. WBZ's Pamela Gardner was there along with Rob Gilman and his wife Betsy. And a special guest in attendance was Charles Orloff, director of the Blue Hill Observatory and Science Center.



The City of New Britain Board of Water Commissioners in Connecticut received a 75 year Honored Institution Award on August 16, 2016. Mike Ziegenhagen (left), Caretaker 2 at the Shuttle Meadow Reservoir in New Britain, CT accepted this milestone for his employer. Besides his regular duties, Mike takes weather observations, thus has contributed to the long weather history at Shuttle Meadow Reservoir that dates back to 1941!

John J. Bagdon, Jr. (right) of Sunderland, MA received a 40 year Length of Service Award on April 1, 2015. John is a farmer on a family farm in Sunderland that started in 1917 by his grandfather. John raises tomatoes, yellow/green squash, Napa Cabbage, Bok Choi and Baby Bok Choi. The produce is sold through the Pioneer Valley Growers' Association and then from there ends up at major local markets such as Market Basket. Shaw's and Hannaford Brothers. A note about John is that before full time life as a farmer, he was drafted into the United States Army in October 1968 and served a tour in Viet Nam at Bien Hoa with the 1st of the 7th Cavalry. We thank John for serving our Nation on many fronts: our country while patrolling as a uniformed soldier overseas; our community by farming delectable home grown produce; and our climate record by recording daily weather observations!





William E. Houghton (left) of Walpole, NH received a 35 year Length of Service Award with his wife Nancy Ann by his side. Mr. Houghton, also known as "Wild Bill," received his length of service award on April 15, 2015, a day before his 82d birthday. Bill's last observation was on December 31, 2014, just before the onset of a very harsh and difficult winter for many New Englanders. For his 35 years of service as a citizen soldier of climate, Bill was also presented with a Special Service Award.



Jean Castles (pictured above) of Fitzwilliam, NH received a 35 year Length of Service Award on September 25, 2014. Jean retired from weather observing a few days later on September 30, 2014 and for her outstanding years of service Jean was also the recipient of a Special Service Award.



Deb Cannon (above right) of the University of Massachusetts East Wareham Cranberry Experiment Station retired in May of 2015 after 40 years of work for the state of Massachusetts. During her 40 years with the state, 28 of those years was as a weather observer at the East Wareham station. For her 28 years of climate service, Deb was the recipient of a Special Service Award, presented by Kimberly Buttrick (above left), Coop Program Manager with NWS Taunton, MA.



On June 30, 2015, Plant Manager Guy Bettencourt (above left) and Sewage Treatment Plant Operator Bobby Dermody (above right) retired from the Bridgewater Correctional Complex Water Pollution Control Facility in Bridgewater, MA. For their years of climate service, Guy and Bobby were the recipients of Special Service Awards. Ray Whitley (pictured right) of Newburyport, MA received a 30 year Length of Service Award on August 30, 2016 and this recognition was timely as Ray planned to retire from weather observing. Sadly, his last observation was a month later on September 30, 2016. We thank Ray for his 30 years of volunteer service to our Nation by contributing to the climate record of Newburyport, MA.





Don Dashnaw (pictured left), Senior Plant Operator at the Southbridge Water Department in Southbridge, MA received a 25 year Length of Service Award on August 13, 2015.



Don Timpson (pictured left), Senior Gardener at the University of Rhode Island (URI), Department of Plant Sciences received a 20 year Length of Service Award on August 24, 2016. In the picture, Don stands within a fenced in area that contains the weather equipment at the Kingston campus of URI. Are you wondering what is in front of Don? That's an evaporation pan with an anemometer pictured front and left of the pan. Within the evaporation pan are a thermometer that measures the water temperature and a hook gage that measures the amount of evaporation. For 20 years, Don has proudly taken daily evaporation measurements of wind run, water temperature and amount of evaporation in addition to daily weather measurements of air temperature, rainfall, snowfall and snow depth. Our

Kingston, RI Cooperative Weather station has a long climate record dating back to 1888! We thank Don for contributing 20 years to that long prestigious record.



Glenna Vitello (above left), Park Ranger with the U.S. Army Corps of Engineers – East Brimfield, MA, received a 15 year Length of Service Award on August 13, 2015. Project volunteer, Patrick Shull (above right), stands by her side. Army Corps of Engineer Projects around the Nation rely on volunteers like Patrick to keep our parks alive and functioning.



Rich Chase (above center), Chief Water Operator at the Whitinsville Water Company in Whitinsville, MA (aka our Northbridge, MA station) received a 15 year Length of Service Award on August 13, 2015. His comrades' bookending him are Steve Lavin Sr. (pictured above left), Water Operator and Construction Foreman and Adam Rauktis (pictured above right), Operations Manager.



Roland Roy (above center), Water Operator at the Whitinsville Water Company in Whitinsville, MA (aka our Northbridge, MA station) received a 10 year Length of Service Award on August 13, 2015. His comrades' bookending him are Operations Manager Adam Rauktis (left) and Accounts Payable Clerk Maureen Dowdy (right).



Zachery Koziol (pictured above), Park Ranger with the U.S. Army Corps of Engineers – Birch Hill Dam, MA received a 10 year Length of Service Award on August 12, 2015.

Judy Mitchell (left), Senior Clerk with the Metropolitan District Commission (MDC) in Connecticut received a 10 year Length of Service award on August 16, 2016. Her co-worker, Bob Beeman (right), Water Supply Contruction/Repair Crew Leader, opted in for the Kodak moment. Judy oversees 2 Coop sites – one at Barkhamsted, CT and the other at Burlington, CT. The Water Supply Construction Supervisor and his Crew Leaders take the daily weather observations and



Judy ensures their data gets entered into WxCoder each month. Thus weather observing is a team effort at the MDC! Thank you Judy, Bob and crew!



Thanks to all of You!

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