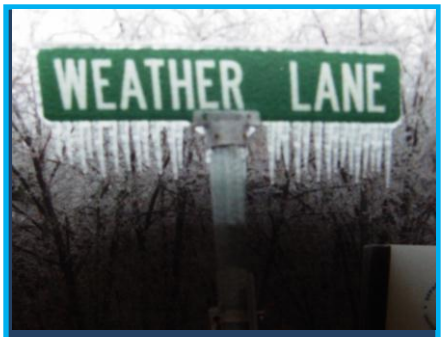

Photo by John Jensenius

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The Coastal Front

Winter 2013

Volume IV-4

Observers Recognized for Service

By Nikki Becker, Observing Program Leader

NWS Weather Forecast Office in Gray, Maine, presented 13 Length of Service Awards to individuals and institutions ranging from 10 to 75 years of service across Maine and New Hampshire. We are very lucky and proud to have Cooperative Weather Observers who volunteer their time to report daily precipitation and temperatures. Their dedicated service is important to the NWS daily forecasting mission and our national climate records.

2013 Length of Service Awards:
10 year: North Stratford, NH and West Hampstead, NH
15 year: Kingfield, ME; Bradford 2, NH; and Wentworth, NH
20 year: Durham, ME and Meredith 3NNE, NH
25 year: York Pond, NH
40 year: Epping, NH
50 year: Hopkinton Everett Lake, NH
75 year: Bristol, NH

Figure 1: Observers from Hopkinton Everett Lake, NH (top); Bristol, NH (bottom left); and Epping, NH (bottom right) received LOS awards in 2013.

NWS Staff Profile

By Margaret Curtis, Meteorologist Intern

The staff profile column introduces you to a new NWS staff member every issue. This issue we introduce you to Lead Forecaster Steve Capriola.

What is your role at the office? Lead Forecaster and Climate Services Program Leader

How long have you worked for the NWS in Gray? 26 years (since November of 1987)

Where else have you worked? I've been working as a meteorologist for over 34 years, beginning my career in February of 1979. I've worked as a general forecaster at the NWS in Charleston, WV, as a weather instructor for the Department of Defense at Chanute AFB in Rantoul, Illinois, and as a forecaster at Universal Weather & Aviation (a private weather consulting firm) in White Plains, NY.

Where did you grow up? Bennington, VT

Where did you get your education? B.S. in Meteorology at Lyndon State College in Lyndonville, VT

How did you first get interested in weather? Always had an interest in various weather events from snowstorms to tornadoes and hurricanes.

What is the most interesting part of your job? The challenges of forecasting all the various weather that impacts Maine and New Hampshire, from severe weather to snowstorms.

What is the most challenging aspect of your job? Working rotating shifts, which requires working nights, weekends and holidays.

Figure 2: Steve Capriola works as a Lead Forecaster and also manages the local Climate program.

What is the most memorable weather event that you have worked? The Ice Storm of January, 1998. Not only was it challenging to forecast the event but it was also challenging driving to and from work as the impact from this storm lasted several days.

Snow Measuring Techniques

By Stacie Hanes, Lead Forecaster

Snow measurements done by Community Cooperative Rain, Hail, and Snow (CoCoRaHS) observers take a little more time than rainfall, but they are well worth it. Scientists are just as interested in variations of snowfall as they are rain and hail, and the water supply we get from melting snow is extremely valuable. Observers also get to track the snowfall at their location and compare it to other values.

To measure the depth of new snowfall, a snowboard is helpful to have. This can be as simple as a small piece of plywood, about 16" by 16" in size, and painted white. White snowboards are less likely to experience melting when the sun comes out. You should try to place the board as far from nearby obstacles as possible. A general rule is to be at least twice as far away from the nearest obstacle as that obstacle is tall. For example, if your house is 20 feet tall, you should place the snowboard at least 40 feet away if possible. The only other piece of equipment you need is a yardstick to measure the snow.

Figure 3: Snow measurement can be one of the hardest parts of weather observations. In this image, a traditional rain gage is buried in snow and would not provide an adequate measurement.

The most common problems with snowfall measurements include melting, settling, blowing, drifting, or evaporation of the snow before you are able to measure it. Try and measure the snow as soon as the storm ends to avoid melting and settling. Avoid areas of drifted snow when taking measurements. You can also take several measurements and average them to minimize the effects of drifting.

For measuring the water content of snow, the 4" diameter CoCoRaHS precipitation gauge can be used. The inner tube and funnel should be removed and brought inside when temperatures go below freezing. The gauge works well for moderate snowfall amounts up to about 6 to 8 inches, especially if winds are light. Melt the snow that has fallen inside the gage and use the inner cylinder to measure the water as you would if it had fallen as rain. This is your total precipitation. To speed up the melting process, you can measure an amount of hot water and pour this into the gage, sloshing it around to accelerate melting. After you measure the resulting water, remember to subtract the total amount of hot water that you poured in. The result is the total precipitation that fell.

NWS Gray Says Goodbye to Science Officer

By Hendricus Lulofs, Meteorologist-In-Charge

Dan St. Jean recently left the National Weather Service (NWS) Office in Gray to accept a position working for another NOAA office, the National Environmental Satellite Data and Information Service (NESDIS). Dan has been at the Gray office serving as Science and Operations Officer (SOO) since 2004 and has been employed by the NWS for 20 years.

At each of the NWS Offices there is a SOO who is responsible for working with the staff to ensure proficiency in the latest meteorological techniques and scientific developments. In addition the SOO evaluates new research and sees how this can be used to improve operational forecasting. The SOO also works with local universities and colleges on collaborative research initiatives. While the minimum educational requirement for this position is a Bachelor of Science in Atmospheric Science, most SOO's hold advanced degrees all the way up to PhD.

Dan's new title at NESDIS is that of Physical Scientist bringing meteorological expertise to the newly-formed Office of Systems Architecture and Advance Planning in Silver Spring, MD. One of the primary areas of work for Dan (and the team he will be working with) is to determine the answer to the question, "What will NOAA need for satellite weather observations in the next 10 to 15 years?" Some examples would be temperature and wind data for input into NWS weather prediction models and improved imagery for real-time use by operational forecasters. He will also be involved in determining the needs and plans of NOAA's private sector and international partners -- with whom we will continue to share satellite weather data.

Fall Weather Review

By Chris Kimble, Forecaster

The first part of fall continued the cool trend which had existed for much of the last half of the summer. This was particularly noticeable on low temperatures which frequently dropped into the 40s. Heavy rain events on September 2nd and 12th-13th helped make the month well above normal for rainfall. Despite the cool September, October reversed course and recorded significantly above normal temperatures along with dry conditions. Freezing temperatures were not observed in Portland until October 25 which is about two and a half weeks later than normal. The warm, dry stretch continued through the first few days of November, before a shift to colder temperatures began. The colder weather continued through the end of the month with only a brief period of warm up in the middle of the month. The first snow of the season fell just before Thanksgiving, as the first significant coastal storm of the season brought snow then heavy rain to the region. Much of the last week of the month was spent below freezing.

	HIGH	LOW	AVE	PRECIP	SNOW
September	70.3 (+0.3)	49.2 (-1.1)	59.8 (-0.3)	6.72 (+3.03)	0
October	61.3 (+2.6)	40.7 (+1.8)	51.0 (+2.2)	1.08 (-3.79)	0 (-T)
November	46.4 (-1.6)	28.5 (-2.4)	37.5 (-1.9)	3.41 (-1.52)	0.5 (-1.4)
Fall 2013	59.4 (+0.5)	39.5 (-0.5)	49.4 (0.0)	11.21 (-2.28)	0.5 (-1.4)

Table 1: Fall 2013 climate statistics for Portland.

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For questions, comments, or suggestions contact us at

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Photo by John Jensenius