NORTHEASTERN STORM BUSTER

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WINTER 2009-10: SLIGHTLY ABOVE NORMAL TEMPERATURES AND SNOW WITH FEW RECORDS

Evan. L. Heller

Climatologist, NWS Albany

Winter started out normal enough in Albany. December turned out to be the most normal month of the season for temperature, averaging less than a degree below normal (Table 1). Even so, it actually produced the most temperature records (Table 3a). These consisted of three daily records all involving just one date, the 3rd. The other temperature record was a 10-day deep freeze that ended with Christmas Day. Precipitation was a little above normal (Table 1), and snowfall was also very close to normal. The season's only snowfall record occurred on the 9th, when the 7.3 inches that fell broke the day's previous record, and became Albany's first major snowfall of the season. This was the season's only non-temperature-related record.

January was quite a bit drier, almost an inch short of normal, and temperatures were more widely variable, with a 4.4° degree variation between the average high for the month, which was exactly normal, and the average low, being 4.4° above normal (Table 1). Snowfall for the month was way below normal, with only 39% of the expected amount having fallen. There were no records set.

February temperatures in Albany were even more wild (Table 1). The average high was 1.1° below normal, but the average low was a whopping 7.2° above! This latter value resulted the month's only record: a tie for 6th place on the Top Ten Highest Minimum Average Temperatures for February chart. February was the month most off from normal (3.0° above). Part of the reason for the unusually above normal minimums and

the below normal maximums was the high number of overcast days (and nights). Tables 4a and 4b each show that about half the days of both January and February were overcast (48% and 54%, respectively).

The season wound up being a degree and a half above normal for temperatures (Table 1). Measurable precipitation fell on 28% of the calendar days of the season (Table 2). There were only two dates with an inch or more of precipitation: one in January and one in February). Precipitation was about 21% above normal, and snowfall, a scant 4% above. This equates to a winter that was more rainy than snowy compared to the normal.

STATS

	DEC	JAN	FEB	SEASON
Avg. High/Dep. From Norm.	33.8°/-2.2°	31.1°/±0°	33.2°/-1.1°	32.7°/-1.1°
Avg. Low/Dep. From Norm.	20.9°/+0.8°	17.7°/+4.4°	22.9°/+7.2°	20.5°/+4.1°
Mean/ Dep. From Norm.	27.4°/-0.6°	24.4°/+2.2°	28.0°/+3.0°	26.6°/+1.5°
High Daily Mean/date	54.5°/3rd	46.5°/25th	37.5°/26th	
Low Daily Mean/date	11.0°/18th	5.5°/30th	16.0°/6th & 7th	
Highest reading/date	63°/3rd	56°/25th	43°/26th	
Lowest reading/date	3°/18th	-2°/30th	8°/7th	
Lowest Max reading/date	19°/18th	13°/30th	22°/6th	
Highest Min reading/date	46°/3rd	37°/25th	34°/20th	
Ttl. Precip./Dep. Fm. Norm.	3.59"/+0.83"	1.75"/-0.96"	3.99"/+1.72"	9.33"/+1.59"
Ttl. Snowfall/Dep. Fm.Norm.	13.3"/+0.5"	7.0"/-11.0"	24.9"/+12.2"	45.2"/+1.7"
Maximum Precip./date	0.96"/27th	1.08"/25th	1.13"/25th	
Maximum Snowfall/date	7.3"/9th	2.4"/3rd	6.4"/23rd	

Table 1

NORMALS, OBSERVED DAYS & DATES

	DEC	JAN	FEB	SEASON
High	36.0°	31.1°	34.3°	33.8°
Low	20.1°	13.3°	15.7°	16.4°
Mean	28.0°	22.2°	25.0°	25.1°
Precip	2.76"	2.71"	2.27"	7.74"
Snow	12.8"	18.0"	12.7"	43.5"
OBS. TEMP. DAYS				
High 90º or above	0	0	0	0/90
Low 70º or above	0	0	0	0/90
High 32º or below	16	16	10	42/90
Low 32º or below	29	29	26	84/90
Low 0º or below	0	1	0	1/90
OBS. PRECIP. DAYS				
Days T+	17	20	20	57/90/63%
Days 0.01+	9	8	11	28/90/31%
Days 0.10+	7	3	6	16/90/18%
Days 0.25+	4	2	6	8/90/13%
Days 0.50+	3	1	3	7/90/8%
Days 1"+	0	1	1	4/90/2%
PRECIP. & SNOW DATES				
1.00"+ value/date	-	1.08"/25th	1.05"/14th	

Table 2

SPRING SKYWARN TRAINING

Session information available at:

http://cstar.cestm.albany.edu:7775/skywarn/Talks.htm

RECORDS

ELEMENT	DECEMBER			
	1st		2nd	
Max. Temperature/Date|Prev. Record/Year	63°/3rd	58°/1998	-	-
High Min. Temp./Date|Previous Record/Year	46°/3rd	41°/1923	-	-
High Mean Temp./Date|Prev. Record/Year	54.5°/3rd	48.0°/1998	-	-
Daily Snowfall/Date|Prev. Record/Year	7.3"/9th	6.3"/1995	-	-
Deep Freeze (10+ days) Dates|# Days Hi's ≤32°	16th-25th	10	-	-

Table 3a

ELEMENT	JANUARY			
	1st		2nd	
NONE	-	-	-	-

Table 3b

ELEMENT	FEBRUARY
Top Ten Highest Monthly Min. Avg. Temp. Value/Rank	22.9°/#6 (tie)

Table 3c

ELEMENT	SEASON	
	1st	2nd
NONE	/	/

Table 3d

MISCELLANEOUS

DECEMBER

Avg. wind speed/Dep. Fm. Norm.	8.1 mph/-0.5 mph
Peak wind/direction/date	49 mph/NW/29th
Windiest day avg. value/date	19.7 mph/29th
Calmest day avg. value/date	2.4 mph/25th
# clear days	6
# partly cloudy days	16
# cloudy days	9
Dense fog dates (code 2)	9th
Thunder dates (code 3)	-
Sleet dates (code 4)	9th, 13th &26th
Hail dates (code 5)	-
Freezing rain dates (code 6)	26th

Table 4a

JANUARY

Avg. wind speed/Dep. Fm Norm.	8.5 mph/-0.5 mph
Peak wind/direction/date	51 mph/WNW/2nd
Windiest day avg. value/date	20.3 mph/3rd
Calmest day avg. value/date	1.8 mph/19th
# clear days	3
# partly cloudy days	13
# cloudy days	15
Dense fog dates (code 2)	20th
Thunder dates (code 3)	-
Sleet dates (code 4)	17th
Hail dates (code 5)	-
Freezing rain dates (code 6)	-

Table 4b

FEBRUARY

Avg. wind speed/Dep. Fm Norm.	9.4 mph/+0.2 mph
Peak wind/direction/date	49 mph/W/18th
Windiest day avg. value/date	18.3 mph/19th
Calmest day avg. value/date	2.2 mph/22nd & 27th
# clear days	2
# partly cloudy days	11
# cloudy days	15
Dense fog dates (code 2)	16th, 23rd, 24th & 26th
Thunder dates (code 3)	-
Sleet dates (code 4)	23rd
Hail dates (code 5)	-
Freezing rain dates (code 6)	-

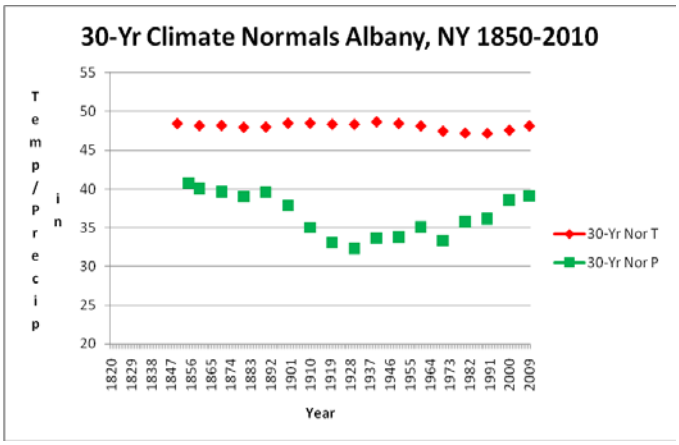
Table 4c□

USING LONG-TERM CLIMATE RECORDS TO PREDICT FUTURE TRENDS

Steve DiRienzo
Service Hydrologist, NWS Albany

There is a relatively long record of weather observations for Albany, New York, with continuous monthly data extending back to 1820, and discontinuous records into the late 1700s. The Albany weather record is assumed to be a good proxy for examining long-term trends or cycles in the Albany Hydrologic Service Area since Albany, New York is well-centered within the area. Weather data from the official records, which are located on-site at the National Weather Service Office in Albany, was entered into a spreadsheet for analysis. Charting Albany precipitation, temperature and snowfall data reveals cycles on the order of 100 years for both precipitation and snowfall. These cycles appear to correlate well with past flood/drought cycles in the Albany area.

National Weather Service climate "normals" cover a 30-year period of record, and are updated at the end of each decade ending in zero. The current Albany climate "normals" represent averages from 1971 to 2000, and the update to be done on January 1st of 2011 will cover 1980 – 2010. The 30-year "normals" usually differ from the long-term averages. When we plotted the 30-year "normals" for temperature and precipitation, we found that annual temperature has varied some during the past 190 years, but that the variability in precipitation is far greater. This can be seen in the following graph.



You'll notice that the driest 30-year period (ending in 1930) coincides well with the beginning of the Dust Bowl period of the 1930s. It seems that the dryness was part of a large-scale signal that extended from the Great Plains of the United States and Canada at least all the way to Albany. Since that time, Albany has been getting gradually wetter with time. The previous decade (2000-2009) was the wettest decade in the Albany climate record. However, the 30-year climate "normals" from the second half of the 1800s were wetter than the current 30-year "normal". It is possible that the pattern of 'wetting, drying, wetting' is part of a repeating cycle that has a period of around 150 years from peak to peak. If this is true, we may be looking at a continuation of wet conditions for the next 20 years or so, and the flood and flash flood threat may remain high for the foreseeable future. Unfortunately, we may also see a continuation of the high cost of flood damage clean-up costs that have recently plagued the area.□

SOCIAL NETWORKS

Brian Montgomery
Senior Meteorologist, NWS Albany, NY

Social networking is nothing new, but it has transformed how we communicate on the Internet. Popular web sites, including Facebook and Twitter, continue to transform how we receive information through words, pictures, video, podcasts or a mix of methods in this popular medium. Your NOAA National Weather Service knows how important it is to have open communications, having vastly expanded our ability to share life-saving lessons, such as those concerning severe weather preparedness. This means maintaining an open dialogue with the people we serve — the public, our constituents and our partners. It is integral to NOAA's mission and is at the heart of good governance. To make this possible, we need to be creative. We need to tell more stories about our natural world and the important work NOAA employees are doing every day.

At the start of 2010, we began an ambitious effort to work with many partners to provide additional communications to you. Do you want "tweets", to become a friend on Facebook , to watch videos on YouTube, or to obtain podcasts and subscribe to RSS Feeds, please visit our NOAA Social Media web portal at http://www.noaa.gov/socialmedia/.

We look forward to continuing to spread the word about all of NOAA's initiatives through interactive communications "outposts", thereby helping keep Americans virtually connected to their natural world.□

WCM Words

Raymond G. O'Keefe
NWS Albany Warning Coordination Meteorologist

Something's new, something's old at the NWS Albany.

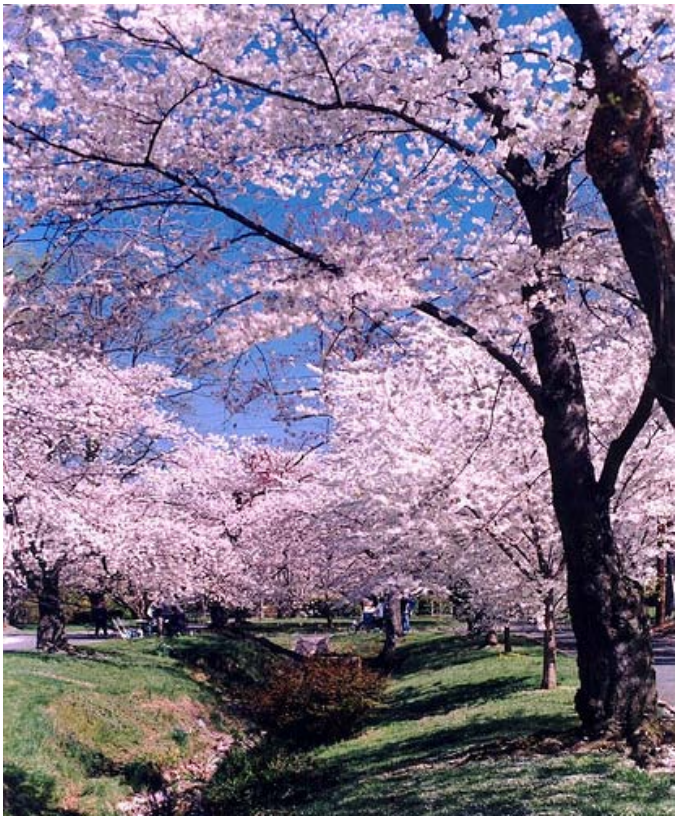
The new -- As you may recall, I noted the retirement of Gene Auciello, NWS Albany Meteorologist In Charge, on January 1, 2010 in the previous StormBuster edition. We still have not selected Gene's replacement. But, by the time the Summer StormBuster hits the stands, I'm sure we will have a new leader.

The NWS Albany is one of only two remaining locations in the NWS that still uses LORAN to navigate our radiosondes. Radiosondes are the instruments that record weather data and are launched on balloons twice a day from our office. That will change in a few weeks. A brand new GPS-based system will be installed in mid-April, and will be ready to go by the end of the month.

As for what's old -- it's spring, and that means it's time for SKYWARN training again. I invite you to sign up for one of our training sessions, being held at many locations across our area. This year, we are offering two Advanced classes -- one in East Fishkill, NY, and the other in Lake George, NY.□

From the Editor's Desk

Recent bouts with flooding rains helped delay the release of this issue. The Easter Weekend is almost upon us as I sit here typing. And we were already experiencing the first taste of the record warmth we are expecting this holiday weekend. We have just three features in this issue. The first recaps the winter season, while the second deals with climate trends. The final offering discusses the relationship between social networks and weather information. We hope you enjoy this issue and this season. We'll be back with another issue in a few months.□



Cherry Blossoms

Daisies