NORTHEASTERN STORM BUSTER
Emergency Manager & Storm Spotter Magazine

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FEATURES

DEPARTMENTS

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AUTUMN 2010: WARMER AND WETTER THAN NORMAL…EARLY ON

Evan. L. Heller
Climatologist, NWS Albany

The fall of 2010 started off warm. Temperatures during September averaged 4.0° above normal (Table 1). This was largely due to just the first two days, which recorded an average daily mean temperature at Albany of 79° and 80°, respectively. These were the last two days of the warm season to have reached or exceeded 90 degrees, as shown in Table 2. Highs both days were 93°, the end of a mini heat wave (Table 3a). Beyond these first two days…temperatures actually averaged about normal through mid-month…then rose to above normal once more. Late September was where our only daily records for climatological fall occurred. On the 24th, the high minimum temperature was tied, and the high mean was exceeded by 1.0° (Table 3a). Temperature trends were flatter during October…and the month averaged only a degree above normal. November was similar… and neither month offered up any further records for temperatures.

There was a very rainy period beginning at the very end of September. In fact, Albany's three days with over an inch of precipitation occurred in the span of a week…beginning with 2.68" on the 30th, and ending with 1.08" on October 6th. The former broke the record, from 1920 (Table 3a). The greatest amount of daily rainfall was 3.04", on October 1st, and this second of two daily precipitation records for the season shattered the standing 2006 record, three-fold (Table 3b). These three days accounted for just over half of the precipitation total for the entire season. At the monthly level, September and entirely record-free November were both very close to normal, which means that most of September was very dry. The 2.68" total on the last day was 78% of the monthly total. Even so, measurable precipitation was recorded on a total of 9 days of the month (Table 2). But the 2.68" value was the only daily

amount above a half inch. The wet month of October picked up a whopping 7.10" (Table 1)…more than twice the normal amount, making it Albany's 9th wettest October and 56th wettest month (Table 3b).

Tables 4a-c show that partly cloudy was the predominant cloud cover…with November, as is typical, slightly cloudier than the other two fall months. There were 4 days of thunder in Albany in September, but then the thunderstorm season was over with.

At the seasonal level (Table 1), all parameters averaged out close enough to normal in that there were no new Top 10 seasonal records. With a total of 14.07", precipitation averaged just over 4 inches above normal. Snowfall was 4" below normal, but this departure may be seen as more significant because it is 75% below the normal value of 5.3". Temperatures were only about 2 degrees above normal.

STATS

	SEP	OCT	NOV	SEASON
Avg. High/Dep. From Norm.	74.6°/+3.3°	59.7°/+0.5°	47.5°/+0.4°	60.9°/+1.4°
Avg. Low/Dep. From Norm.	54.6°/+4.7°	38.8°/+1.6°	30.8°/+0.5°	42.1°/+2.3°
Mean/ Dep. From Norm.	64.6°/+4.0°	49.3°/+1.0°	39.2°/+0.4°	51.5°/+1.8°
High Daily Mean/date	80.0°/1st	63.0°/27th	51.0°/17th	
Low Daily Mean/date	55.5°/21st	39.5°/22nd	27.5°/25th	
Highest reading/date	93°/1st & 2nd	74°/26th	63°/13th	
Lowest reading/date	39°/21st	30°/19th	18°/28th	
Lowest Max reading/date	61°/27th	48°/22nd	34°/25th	
Highest Min reading/date	70°/3rd	56°/27th	45°/17th	
Ttl. Precip./Dep. Fm. Norm.	3.44"/+0.13"	7.10"/+3.87"	3.53"/+0.22"	14.07"/+4.22"
Ttl. Snowfall/Dep. Fm.Nrm.	0"/-	0"/-0.2"	1.3"/-3.8"	1.3"/-4.0"
Maximum Precip./date	2.68"/30th	3.04"/1st	0.93"/4th	
Maximum Snowfall/date	0"/-	0"/-	1.3"/8th	

Table 1

NORMALS, OBSERVED DAYS & DATES

	SEP	OCT	NOV	SEASON
NORMALS				
High	71.3°	59.7°	47.5°	59.5°
Low	49.9°	38.8°	30.8°	39.8°
Mean	60.6°	49.3°	39.2°	49.7°
Precip	3.31"	3.23"	3.31"	9.85"
Snow	0.0"	0.2"	5.1"	5.3"
OBS. TEMP. DAYS				
High 90º or above	2	0	0	2/91
Low 70º or above	1	0	0	1/91
High 32º or below	0	0	0	0/91
Low 32º or below	0	4	20	0/91
Low 0º or below	0	0	0	0/91
OBS. PRECIP. DAYS				
Days T+	15	18	16	49/91/54%
Days 0.01+	9	15	10	34/91/37%
Days 0.10+	3	8	7	18/91/20%
Days 0.25+	2	7	5	14/91/15%
Days 0.50+	1	5	4	10/91/11%
Days 1"+	1	2	0	2/91/3%
PRECIP. & SNOW DATES				
1.00"+ value/date	2.68"/30th -	3.04"/1st 1.08"/6th	-	

Table 2

RECORDS

ELEMENT	SEPTEMBER	
Heat Wave (3 or more consecutive days w/high temp. of 90°+)	Aug 31st thru 2nd	3-day stretch
High Minimum Temperature/Date|Previous Record/Year	65°/24th	65°/1984
High Mean Temperature/Date|Previous Record/Year	75.5°/24th	74.5/1959
Precipitation/Date|Prev Rec./Yr.	2.68"/30th	2.51"/1920

Table 3a

ELEMENT	OCTOBER	
Precipitation/Date|Prev Rec./Yr.	3.04"/1st	1.02"/2006
First Freeze	30°	19th
Top Ten Wettest Months	7.10"/#9	-
Top 200 All-Time Wettest Months Value/Rank|Remarks	7.10"/#56	-

Table 3b

ELEMENT	NOVEMBER	
(none)	-	

Table 3c

ELEMENT	AUTUMN	
(none)	-	-

Table 3d

MISCELLANEOUS

SEPTEMBER

Avg. wind speed/Dep. Fm. Norm.	6.8 mph/+0.2 mph
Peak wind/direction/date	39 mph/NW/8th
Windiest day avg. value/date	12.2 mph/24th
Calmest day avg. value/date	1.8 mph/27th
# Clear days	4
# Partly Cloudy days	20
# Cloudy days	6
Dense fog dates (code 2)	-
Thunder dates (code 3)	8th, 13th, 16th & 22nd
Sleet dates (code 4)	-
Hail dates (code 5)	-
Freezing rain dates (code 6)	-

Table 4a

OCTOBER

Avg. wind speed/Dep. Fm Norm.	7.1 mph/-0.2 mph
Peak wind/direction/date	41 mph/WSW/28th
Windiest day avg. value/date	12.6 mph/28th
Calmest day avg. value/date	0.7 mph/13th
# Clear days	6
# Partly Cloudy days	18
# Cloudy days	7
Dense fog dates (code 2)	13th, 14th, 21st, 24th, 25th & 26th
Thunder dates (code 3)	-
Sleet dates (code 4)	31st
Hail dates (code 5)	-
Freezing rain dates (code 6)	-

Table 4b

NOVEMBER

Avg. wind speed/Dep. Fm Norm.	6.9 mph/-1.6 mph
Peak wind/direction/date	45 mph/WNW/17th
Windiest day avg. value/date	16.5 mph/24th
Calmest day avg. value/date	0.5 mph/13th
# Clear days	4
# Partly Cloudy days	16
# Cloudy days	10
Dense fog dates (code 2)	8th
Thunder dates (code 3)	-
Sleet dates (code 4)	8th & 24th
Hail dates (code 5)	-
Freezing rain dates (code 6)	-

Table 4c□

HOW WILL THE CURRENT LA NIÑA IMPACT OUR WINTER?

Hugh Johnson
Meteorologist, NWS Albany

The El Niño/La Niña Oscillation, otherwise known as the ENSO, has shifted to the cold, or La Niña phase this winter, unlike last winter when we had a moderate El Niño. This makes this the third out of the last four winters that we have had a La Niña to deal with.

The La Niña phase of the ENSO is represented by significantly cooling central Pacific Ocean waters from east to west. This phenomenon usually results in low pressure over the central or western Pacific region, with high pressure building across the Southeastern U.S. A strong polar jet stream often brings stormy weather to the Northwest, Midwest and Ohio Valley. At the same time, drier and milder than normal winter weather is usually experienced across the South.

Across the Northeast, the signal for La Niña is less clear as to what an El Niño will bring for winter. On occasion during a La Niña, the ridge in the southeast will extend northward, bringing very mild weather to our region. However, colder than normal air, often locked up in central Canada, is usually just a cold front away, sometimes "swooping" southward to bring us a shot of very cold Arctic air. This front might stall just to our south, allowing potent storms to bring snow or ice to the region, as was the case during the infamous December 2008 Ice Storm that knocked out power to nearly a million residents throughout the northeast.

Studies conducted at our office have indicated that during a La Niña winter, the Albany area can expect a snowier than normal December with slightly below normal temperatures, followed by highly variable temperatures and near normal snowfall for January. February months during a La Niña tend to be a bit milder and wetter than normal, but with less snow. However, just as one is thinking winter is over, March can reverse the trend, toward colder temperatures with well above normal snowfall. Overall, snowfall averages a little below normal for the entire winter with La Niña.

Having stated the above facts, snowfall during La Niña winters in Albany has been wide-ranging, from our second-least snowiest winter (1988/89) to our snowiest (1970/71).

In order to understand the differences in winter weather from one La Niña to the next, one needs to look at the strength of each. Also, other teleconnections need to be examined. The Pacific Decadal Oscillation (PDO) is a binary oscillation that involves a much larger area of the Pacific. In the "cool" stage, warm air piles up across the northwest Pacific Ocean, leaving the majority of the basin cooler than normal. In the "warm" stage, cold waters are found in the northwest region of the Pacific while the remainder of the Pacific (over which most of the jet stream activity is) is warmer than normal. Unlike the ENSO, just one phase of this oscillation can last decades (hence the word "Decadal"). The PDO was mainly in the warm phase from the late 70s through most of the 90s. However, there were fluctuations, where the PDO went a bit colder than normal, as during the cold and snowy winters of 93/94 and 95/96. Earlier this year, while in the cold phase (where it has been since the early 2000s), the PDO was actually a little on the warm side. But during the fall, it had clearly shifted solidly into the cold phase.

Some climatologists argue that the PDO, more so than the ENSO, drives a much more familiar teleconnection: the North Atlantic Oscillation (NAO). The argument is that when the PDO is in the cool stage, the NAO is likely to be more negative, which means a surface high resides near Iceland, with an upper-level ridge over Greenland. This setup keeps cold air locked in over much of North America, and even more so over Europe. Indeed, we have been experiencing a negative NAO since late fall. The NAO often affects our weather more so than the ENSO because the origin of this oscillation is much closer to our area than the ENSO.

There are many more climatological teleconnections, but we will examine only one more, the North Atlantic Current. Temperatures near the Gulf Stream of the Atlantic Ocean (the North Atlantic Current) appear to behave in some sort of binary mode. They were very warm much of this year, which helped lead to a very active tropical season. However, these waters are now cooling more than the normal seasonal adjustment (as are all of the Pacific waters). Could these trends be bringing us a colder and snowier than normal winter?

After an exceptionally warm spring followed by a hot summer lingering into September, the remainder of the autumn season was not all that warm. What's been interesting is that Arctic air has already made it down to the Sunshine State, bringing freezing temperatures. This rarely occurs during a La Niña. Thus far, it appears that the negative NAO has been the driving force during the early stages of our present winter season.

You might recall that last winter, even during a moderate El Niño, the NAO was strongly negative. Southern areas of our forecast area saw an epic snowstorm late in the winter while most regions from Albany on north experienced well below normal snowfall. Record-breaking snowfall buried the entire Mid-Atlantic region.

Long-range forecasters often look at many climatological indices from past winters, and come up with an analog in an attempt to forecast what the upcoming winter (or any season)
will have in store. On occasion, one can see very interesting similarities between two different winters, but one thing to remember is that while an analog might point toward similarities to past winters, no two winters will ever be identical.

Observing such a strong ENSO bimodal switch is perhaps noteworthy in itself. The last time this occurred was during the winter of 98/99, when we transitioned from the strongest El Niño on record the previous winter, to a moderate La Niña. This winter saw a lot of variability in temperatures, but overall, it was milder, wetter and less snowy than normal. So far, the analog from 98/99 has not worked at all, as early December of 1998 was much warmer and drier than normal, unlike the start of this December. Then, the PDO appeared to still be in the warm phase, and the NAO was much more positive, with low pressure near Iceland. This allowed the cold air from Canada to drain off the North American continent and be replaced by milder Pacific air.

The bottom line is that there is much uncertainty in how this winter will pan out. Officially, NOAA gives "equal" chances for our winter to be either colder or warmer than normal. This is also the case for being wetter or drier than normal. It is safe to assume that all of our region will experience snow from time to time, perhaps a great amount in some localities. We have already had a significant lake-effect snow event in our snow belt region. There will likely be some bitterly cold days along with some thaws.
So, have your snow shovels, snow blowers and furnaces ready, in order to deal with Old Man Winter.□

"COUNTYTOP" WEATHER ADVENTURES: A STORM BUSTER MINISERIES

Brian J. Frugis
Meteorologist, NWS Albany

PART 3: SUMMITS OF THE SOUTHERN ADIRONDACKS

As mentioned in previous editions of *StormBuster,* I am attempting to summit the highest accessible mountain peaks in each county of the Albany County Weather Forecast Area. While the last two editions of *StormBuster* discussed hikes in the Taconic Range and Eastern Catskill Mountains, this article will focus on the peaks of the Southern Adirondack Mountains.

The Adirondacks are a mountain range in northern New York. While often included in the Appalachian Mountain chain, it is actually geologically separate, being more characteristic of the Laurentian Mountains of southern Canada. The Adirondack's highest mountain, 5,344' Mt. Marcy, is located in Essex County, and is the highest mountain in the entire state of New York. Mt. Marcy is located in an area known as the High Peaks, which contain most of the highest summits of the Adirondack Range. Most of the range is included in the 6.1 million-acre area known as the Adirondack Park, which is the largest state park in the contiguous United States. Although much of the Park is privately owned, a large portion of the land is controlled by the state Forest Preserve. The Adirondack Park is split mainly between the Albany and Burlington County Warning Areas, with Albany covering the portions of the Adirondacks in Herkimer, Hamilton, Fulton, Saratoga, Warren and Washington Counties. Although most of the highest peaks of the Adirondacks are in Burlington's Warning area, there are several noteworthy mountains in ours.

The first southern Adirondack county high peak I conquered was 2,650-foot Black Mountain, the highest peak in Washington County. Black Mountain, located on the eastern shore of Lake George, is unique in the fact that it is rather isolated from the remainder of the Adirondacks. This allows for the mountain to stand out, and it has the seventh-highest topographic prominence

of all the mountains in New York. There are two paths to the summit of Black Mountain. The first route is a steep climb from the immediate lakeshore. This requires a boat to reach the shore side trailhead, so I had to choose the second option, a just under 3-mile climb from the east. This makes for about a 5.5-mile roundtrip, with an elevation gain of just over 1,000 feet. The trailhead is located just a few miles from Whitehall, New York, on a rural mountain road. The climb up Black Mountain is never overly steep at any one point, with several crossings by a small stream. A variety of both softwood and hardwood trees dominate the forest landscape, although the former begin to become more predominate towards the mountain summit.

The summit of Black Mountain features several open ledges, with fantastic views of the northern half of Lake George. The lower portions of Lake Champlain and the Green Mountains are also visible to the east. The summit also features a fire tower, although it's non-accessible and fenced off. Fire towers, as mentioned in the previous installment, were once useful vantage points for spotting wildfires. Lately, fire towers have been closed in many areas, as satellites, airplanes and helicopters have become more efficient methods of wildfire detection. Despite the tower being closed, it is still a nice addition to the mountain summit. In addition to the fire tower, there is a power-generating windmill at the summit, which helps power emergency communication equipment. This windmill was whirling easily away the day I hiked the mountain, which was on the crystal clear early spring day pictured below.

A view looking north from near the summit of Black Mountain in Spring, 2010. The northern half of Lake George is easily visible.

The second Adirondack summit I will detail is Snowy Mountain. Snowy Mountain is the highest peak in Hamilton County, and is also the highest Adirondack Mountain in the Albany County Warning Area. At 3,898 feet, Snowy Mountain is located in the central Adirondacks, about halfway between Indian Lake and Speculator. Snowy Mountain gets its name from the fact that is receives a lot of snow. The average annual snowfall is around 125 inches, which includes snow from both lake-effect and synoptic storm systems.

The hike up Snowy Mountain is a bit longer than some of the other County High Peaks, with a 3.7-mile hike from the trailhead to the summit, making for a 7.4-mile round trip. While the first two miles or so of the hike is relatively flat and gradual, the remainder of the hike is very steep. This requires you to climb up slippery rocks on all fours at times, which makes for a slow and strenuous climb. Despite the difficult climb, Snowy remains a very popular mountain, and it had quite a number of hikers on the day I climbed it.

The peak of Snowy Mountain is covered in coniferous trees, although there are a few rocky ledge viewpoints. The best one is located on the eastern side of the mountain, where you get a wide open view of Indian Lake and the surrounding central Adirondacks. On a good day, views to the northeast allow for great pictures of the High Peaks area. Also located at the summit is another fire tower, and this one is accessible to the visiting public. A climb to the top of the tower allows for even better views, so be sure to bring a map along so you can name all the numerous peaks visible in every direction. On the day I hiked Snowy Mountain, fellow Albany Meteorologist Hugh W. Johnson IV was along for the hike. Hugh and I were impressed by the fantastic views, but we were both wiped out by the steep ascent.

Although I haven't hiked the third of the three accessible Southern Adirondack County High Peaks, I've already been to the top via an alternate route. In fact, many New Yorkers have been to the top of this famous mountain and haven't realized they've visited a County High Peak. Gore Mountain, the highest peak in Warren County, is also the name of the well-known ski area there. The 3,580' summit can be reached by a hiking trail (when it's not being used by downhill skiers and snowboarders in the winter months) or by the Northwoods Gondola. In fact, Gore is the one mountain on this list where going up is nowhere near as scary as coming down, as I doubt I will ever acquire enough skill

on my snowboard to be able to descend the double-black diamond trail "Rumor" in one piece.

The other two counties to contain Adirondack County High Peaks are Herkimer and Fulton, but both of these county's high peaks are on trail-less and/or unknown mountain peaks. However, with plenty of maintained trails amongst other southern Adirondack peaks, there is an endless supply of great hikes. Be sure to check out future *StormBuster* issues for great hikes on other County High Peaks, including the majestic summits of the southern Green Mountains of Vermont.□

ARCTIC SEA ICE EXTENT

George J. Maglaras
Senior Meteorologist, NWS Albany

Trends in Arctic sea ice extent are frequently used as a measure of climate change, especially the summer minimum extent. While changes in weather patterns and ocean currents from one season to the next can cause large variations from year to year, a multi-year trend of increasing sea ice extent is seen as evidence of a cooling climate, while a trend of decreasing sea ice extent is taken as evidence of a warming climate. This article will present the latest Arctic sea ice extent statistics.

Arctic sea ice extent is defined as an area of sea water where ice covers 15 percent or more of that area. Thus, for any square mile of sea water to be included in the ice extent total, at least 15 percent of that square mile must be covered with ice.

Based on satellite measurements of Arctic sea ice extent which began in 1979, the average summer minimum Arctic sea ice extent for the period from 1979 to 2000 is 2.59 million square miles. For 2010, the summer minimum extent was reached on September 19, and was 1.78 million square miles. As a result, the 2009 minimum extent was 31.2 percent below the 1979-2000 average. It was the third-lowest summer minimum extent since the satellite record began in 1979.

There has been a noticeable trend of decreasing ice extent since satellites began measuring Arctic sea ice extent in 1979. The lowest summer minimum ice extent occurred in 2007, and was measured at 1.60 million square miles (38.2 percent below the 1979-2000 average). This caused great concern that global warming was accelerating, and that the Arctic could be ice-free during the summer months within a relatively small number of years, thereby further accelerating the impacts of global warming.

During the summers of 2008 and 2009, the summer minimum ice extents had shown a modest upward trend compared to 2007, but the 2010 summer minimum ice extent has reversed that trend. However, the 2010 minimum extent remains 11.3 percent above the 2007 summer minimum extent.□

SHORT AND TO THE POINT

Brian Montgomery
Senior Meteorologist, NWS Albany

Your National Weather Service continuously looks for innovative yet effective ways to disseminate life-saving information. Much of the feedback we receive from our users asks us to simplify our products to relay information in a way that is short yet concise, similar to the way we do with our Severe Thunderstorm, Tornado and Flash Flood Warnings. This winter season, we will be further applying this concept, to our winter weather and non-precipitation hazard products (e.g. High Wind Watches, Winter Storm Warnings, Winter Weather Advisories, Dense Fog Advisories, etc.), using a bulleted format. Below is an example of a recent product that reflects "straight to the point" weather information in a bulleted format:

URGENT - WINTER WEATHER MESSAGE
NATIONAL WEATHER SERVICE ALBANY NY
456 AM EST THU DEC 16 2010

NYZ038-161800-
/O.EXT.KALY.LE.Y.0006.000000T0000Z-101216T1800Z/
SOUTHERN HERKIMER-
INCLUDING THE CITIES
OF...ILION...HERKIMER...LITTLE FALLS...
MOHAWK...FRANKFORT...DOLGEVILLE
456 AM EST THU DEC 16 2010

...LAKE EFFECT SNOW ADVISORY NOW IN EFFECT UNTIL 1 PM EST THIS AFTERNOON...

THE LAKE EFFECT SNOW ADVISORY IS NOW IN EFFECT UNTIL 1 PM EST THIS AFTERNOON.

*** LOCATIONS: SOUTHERN HERKIMER COUNTY.**

*** HAZARDS: LIGHT TO MODERATE BANDS OF LAKE EFFECT SNOW.**

*** ACCUMULATIONS: ADDITIONAL ACCUMULATION OF 1 TO 3 INCHES THROUGH EARLY AFTERNOON...WITH TOTAL ACCUMULATION OF 3 TO 6 INCHES.**

*** TIMING: LAKE EFFECT SNOW BANDS WILL INTENSIFY TOWARDS DAYBREAK AS THEY LIFT NORTHWARD THROUGH SOUTHERN HERKIMER COUNTY. SNOW BANDS WILL DRIFT NORTHWARD OUT OF THE AREA BY EARLY AFTERNOON.**

*** IMPACTS: SNOW COVERED ROADS WILL CAUSE HAZARDOUS DRIVING CONDITIONS. ALLOW EXTRA TIME TO REACH YOUR DESTINATION.**

*** TEMPERATURES: IN THE TEENS THROUGH MUCH OF THIS MORNING...THEN RISING INTO THE MID 20S THIS AFTERNOON.**

*** WINDS: WEST TO NORTHWEST AT 5 TO 15 MPH...BECOMING WEST TO SOUTHWEST BY THIS AFTERNOON AT 5 TO 15 MPH.**

PRECAUTIONARY/PREPAREDNESS ACTIONS...

A LAKE EFFECT SNOW ADVISORY MEANS LAKE-EFFECT SNOW IS FORECAST THAT WILL MAKE TRAVEL DIFFICULT IN SOME AREAS. LAKE EFFECT SNOW SHOWERS TYPICALLY ALIGN THEMSELVES IN BANDS AND WILL LIKELY BE INTENSE ENOUGH TO DROP SEVERAL INCHES IN LOCALIZED AREAS. USE CAUTION WHEN TRAVELING.

The use of the bullets are flexible, and can highlight locations, hazards, accumulations, impacts, timing, winds, temperatures and visibilities. We look forward to your feedback as we continue to work together and save lives!□

WCM Words

Steve DiRienzo
Warning Coordination Meteorologist, NWS Albany

StormBuster is always looking for articles. If you would like to contribute an article for publication please contact me at the email below. We would greatly appreciate an article from our users describing how weather impacted your operations. All of us here at the National Weather Service could learn a great deal from you.

Winter has arrived, and with it, a new set of forecast challenges. Snow, sleet, freezing rain and frozen rivers and ground will be the norm for the next few months. Hopefully, we'll escape the winter with a minimum of severe winter weather.

Remember, we're here to answer your weather and water questions 24 hours a day, 7 days a week. If you have concerns, please call us. If you have comments on StormBuster, or any of the operations of the National Weather Service, please let me know at Stephen.Dirienzo@noaa.gov. Healthy and happy holidays to all!□

From the Editor's Desk

Winter has very much arrived. There might not be a lot of snow in many places in the Northeast but there has been plenty of cold. Our winter issue opens with a concise climatological re-cap of Albany's past fall, then it's on to winter themes, opening with a look at how climate patterns may impact the remainder of our winter. Then we continue on with our 3rd installment of our special miniseries, "Countytop" Weather, with our author's trek into the southern Adirondacks. Then we provide another update on the Arctic sea ice situation. Our final feature shows the kind of bulleted format we will be using to get weather information across to you in a more direct and simple to understand way. A special thanks you goes out to our contributing authors. Until we see you again in spring, enjoy the holidays and stay warm!□

Hudson River, Albany, New York

The Crossings, Colonie, New York

Troy, New York

Monterey, The Berkshires, Massachusetts

Ski slope, North River, The Adirondacks, New York

Stratton Mountain, Windham County, Vermont