NORTHEASTERN STORM BUSTER

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THE SUMMER OF '06: ONE OF EXTREMES, YET FEW RECORDS

Evan L. Heller
Climatologist, NWS Albany

June and August were slightly below normal for Temperatures in Albany. Sandwiched in between was July, a well-above normal month. Despite the heat of July, there was only one daily temperature record for the month, and for the entire season. And while June of 2006 was the wettest June on record, July and August precipitation was close to normal, and the season wound up missing the Top 10 wettest list by only about a half an inch.

June opened the climatological summer season in Albany with a couple of above-normal temperature days, but below-normal temperatures were far more common for the balance of the first half of the month. The last half of the month had only two days with below-normal temperatures, but there was no extreme warmth. The warmest day was the 27th, with a mean temperature of 78.0º. The coolest day was the 10th, with a mean of 55.5º The warm reading for June was 91º, on the 18th, one of two days to reach 90+ degrees, the other being the 19th. The cool reading occurred on the 11th, and it was 50º. The low maximum temperature for the month occurred on the 10th, when the mercury reached only 59º. The high minimum temperature was 71º, on the 27th. The mean high temperature for the month was 76.2º, 1.3º below normal, while the mean low was 59.0º, 4.0º above normal. This resulted in a monthly mean of 67.6º, 1.3º above normal.

Precipitation for June totaled a whopping 8.74". This was exactly 5.00" above the normal, and placed the month at the very top of the list of 10 Wettest Junes, nudging out the previous number one from 1862 by just

0.04”. June 2006 was also Albany’s 7th wettest month in over 130 years. The day that contributed most to the record was the 26th, when 2.22” fell. This amount, itself, broke the previous daily record for the date of 1.58”, established way back in 1889. The other date with over an inch of precipitation was the 3rd. Precipitation occurred on all but 8 days in June, on 18 of which it was measurable. A tenth inch or more occurred during 14 days, 0.25” or more on 11 of these, and 0.50” or more on 7 of those. There were 13 clear, 9 partly cloudy and 8 cloudy days in June, and thunderstorms occurred on the 1st, 19th, 20th and 29th. Dense fog occurred on the 20th. The peak wind speed was 44 mph, from the west northwest on the 20th. The average wind speed for the month was 6.9 mph, and the windiest day was the 10th, with an average wind speed of 19.3 mph. The calmest day was the 6th, with an average wind speed of 2.6 mph.

Where June showcased wet, July emphasized heat. There were a total of six days during the month when the temperature reached or exceeded 90 degrees. Even so, there was only one daily temperature record…a high minimum of 73º on the 27th. The daily mean temperatures were in the 70s or higher during all but three days. The warmest reading during July was 92º, on the 17th. The coolest reading, 54º, occurred on the 1st. The low maximum temperature for the month was 73º, on the 22nd, while the high minimum was also 73º, having occurred on both the 22nd and 27th. The 18th and 27th shared ‘warmest day’ status, with a mean temperature of 81.5º apiece. The coolest day was the 23rd, with a mean of 68.0º. The average temperature for July was 74.9º, 3.8º above normal. The average high was 84.6º, 2.4º above normal, and the average low was 65.2º, a whopping 5.2º above normal.

Precipitation for July totaled 2.92”, 0.58” below normal, and there was one daily record established. This occurred on the 22nd, when 1.53” of rain fell, to break the previous daily record of 1.17” from 1928. There were no other precipitation records in July. Precipitation fell during 15 days of the month, on 10 of which it was measurable. A tenth of an inch or more fell during 5 days, with 0.25” or more on 3 of these, and 0.50” or more on 2 of those. The 22nd was the only day to pick up over an inch of rain. There were 27 clear and 4 partly cloudy days during July. Thunderstorms occurred on the 2nd, 3rd, 11th, 26th and 27th. The peak wind speed was 30 mph, from the west northwest on the 29th. The average wind speed for the month was 5.9 mph, and the windiest day was the 2nd, with an average wind speed of 11.8 mph. The calmest day was the 8th, with an average wind speed of just 1.2 mph.

Rounding out the climatological summer, August marked a return to near-normal conditions. The average high temperature was 79.6º, 0.1º below normal, and the average low was 60.0º, 1.7º above normal, and this equated to a mean temperature for the month of 69.8º, just 0.8º above normal. The precipitation total was 3.92”, a mere 0.24” above normal. Despite the relative normalcy of the month, there was one record established, a daily precipitation record on the 20th. The 1.17” that fell that day broke the previous record of 1.00” from 1914. It was the only day in August where an inch or more of rain fell. Also, the two hottest temperatures of the season were recorded in August, when the mercury topped out at 96º on the 1st, followed by 95º the following day. These high readings fell a few degrees shy of records, but this warmth contributed to the 1st being the hottest day of the season, with a mean temperature of 85.0º. It’s no surprise the high minimum temperatures also occurred on the 1st and 2nd. It dipped to just 74º both days. The lowest reading recorded during the month was 47º, on the 13th, and the low maximum temperature occurred on the 27th, when the mercury climbed to just 64º. The coolest day was the 31st, with a mean temperature of just 60.5º.

There were 15 days during which it rained in August, and it was measurable on all but 2 of those days. A tenth of an inch or more fell during 7 days, with 0.25” or more on 5 of these, and 0.50” or more on 3 of those. There were 19 clear, 8 partly cloudy and 4 cloudy days during July. Thunderstorms occurred on only the 7th and 20th. The peak wind speed was 40 mph, from the west southwest on the 20th. The average wind speed for the month was 6.1 mph, and the windiest day was the 21st, with an average wind speed of 11.1 mph. The calmest day was the 9th, with an average wind speed of just 2.1 mph.

So, the Summer of ’06 in Albany produced an average temperature of 70.8º, which was only 2.0º above normal, with the average high of 80.1º being 0.3º above normal, and the average low of 61.4º being 3.6º above. Despite the 15.58” seasonal precipitation total being an impressive 4.66” above normal, the Summer of ’06 fell nearly a half an inch short of making the Top 10 Wettest Summers list.

LOCAL 3-MONTH TEMPERATURE OUTLOOK

Ingrid Amberger
Climate Services Program Leader, NWS Albany

The National Weather Service (NWS) has begun issuing Local 3-Month Temperature Outlooks (L3MTOs). The L3MTO products are produced at a central location, and distributed monthly to local NWS web pages with the issuance of the Climate Prediction Center (CPC) national product on the third Thursday of each month. The L3MTO is available in several formats: tables; text discussions, and; graphical outputs.

What does Local 3-Month Temperature Outlook (L3MTO) stand for? 'Local' refers to a site specific station (e.g., Albany International Airport). 'Three-Month' refers to any consecutive 3-month period (string). 'Temperature' refers to a 3-month average of daily mean temperatures. And 'Outlook' refers to the probabilistic forecasts. The outlooks are issued for 13 consecutive 3-month periods (e.g., the mid-September issuance covers the periods Oct/Nov/Dec 2006 through Oct/Nov/Dec 2007).

Where does the L3MTO come from? A method of statistical downscaling is used. Downscaling is the process of transformation from a large-scale to a small-scale, creating a more detailed forecast for a particular location out of a forecast for a larger area.

The L3MTO is based on CPC's forecasts for their "mega-climate divisions" (Figure 1). The mega-climatic divisions were created based on specific climatic patterns using data from the National Climatic Data Center (NCDC) going back to 1895.

Figure 1

There are relationships (correlations) between each station within a respective mega-climate division and that mega-climate division itself. Stations that have strong statistical correlations with their mega-climate divisions are identified by applying a statistical linear regression analysis to data from the latest 30-year climatic reference period, now 1971-2000. More recent data are then analyzed to see if the individual station has a trend that differs from that of the mega-climate division. If the difference is determined to be statistically significant, an adjustment is made. This procedure is performed annually for each station. The annual routine flow chart in Figure 2 illustrates the process.

To produce the L3MTO on a monthly basis for a particular station, the mega-climate division's mean 3-month temperature forecast is "plugged" into each station's regression equation, and a mean 3-month temperature forecast is produced. Next, a verification filter is applied. If the skill scores are sufficient, meaning the data is good, then the forecast is finalized and issued. If the skill scores are not adequate, then there is effectively no forecast, and the "outlook" is displayed to be the same as the climatological reference period 1971-2000. Refer to the monthly routine flow chart in Figure 2.

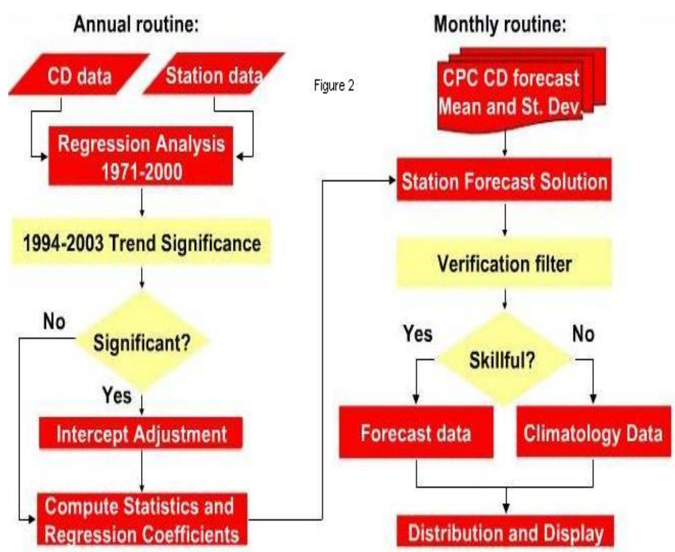
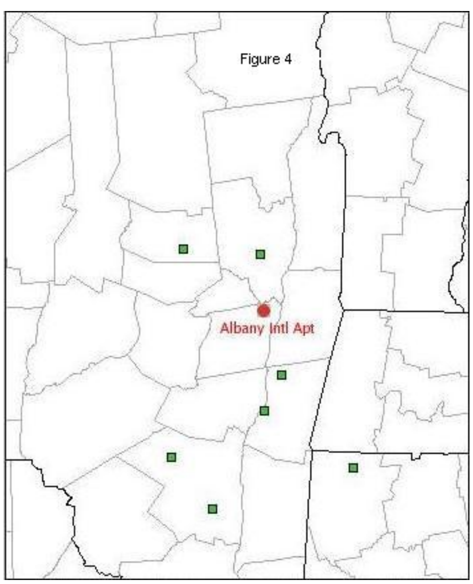


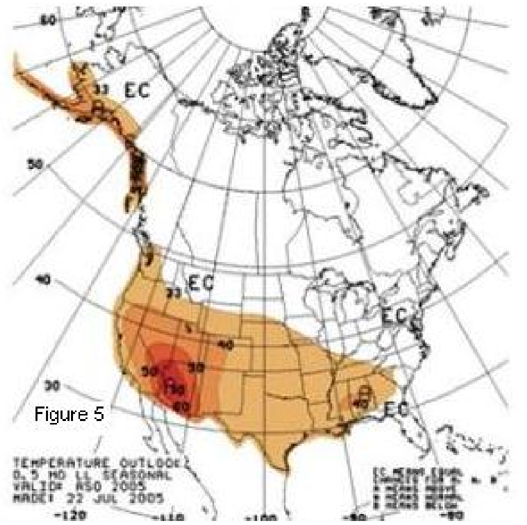
Figure 2

Where can I find the L3MTO? It can be found on each NWS office's climate web page under the Climate Prediction tab (Figure 3).

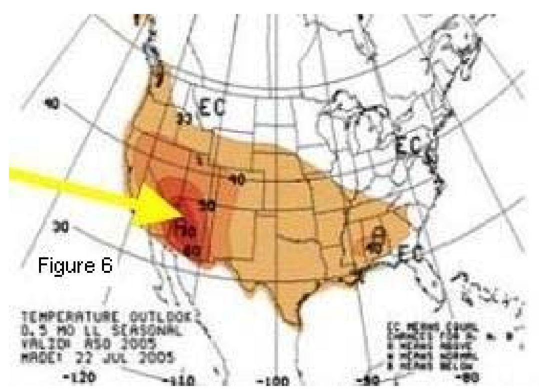
There are 8 sites in the Albany, NY Forecast Area for which L3MTOs are prepared (Figure 4). In Albany County: Albany International Airport; in Columbia County: Valatie 1N and Hudson Correctional Facility; in Fulton County: Gloversville; in Litchfield County: Norfolk 2SW; in Saratoga County: Saratoga Springs 4SW, and; in Ulster County: Mohonk Lake and Slide Mountain.



The National 3-Month Temperature Outlook produced by CPC is a colored map (Figure 5) that shows where there is an enhanced chance for above normal temperatures (reds), below normal temperatures (blues) and near normal temperatures (grays), based on mega-climate divisions. The national map displays only the most likely category for an area. Even though the other categories are not shown, there's still a chance (33% or less) the actual average 3-month daily mean temperature will wind up falling within one of the other categories.



Interpretation for the northwest Arizona area (Figure 6, yellow arrow), shows there's a 60% chance the average temperature for the 3-month period will be above normal. The most likely category is above normal, but there's still a 33% chance for near normal, and a 7% chance for below normal. The 7% below normal comes from the calculation: 100% - (60% + 33%) = 7%.



Interpretation for the Great Lakes Region (Figure 7, yellow arrow) is "EC", which stands for Equal Chances. The forecast tools used by CPC to create the outlook did not offer strong-enough guidance to provide a confident forecast. Therefore, there are equal chances

(33%) for the mean 3-month temperatures to fall into the above, below or near normal categories.

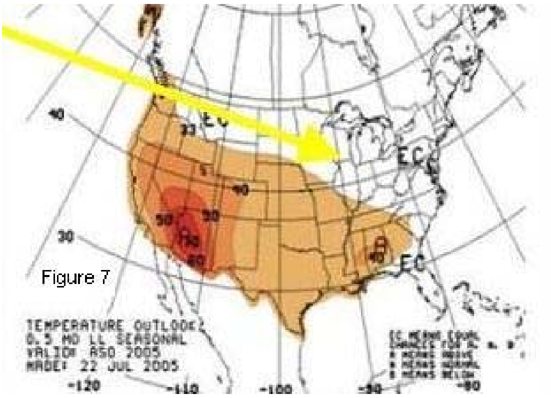


Figure 7

For each local station, the L3MTO is presented in three graphics of increasing complexity: pie charts; temperature range graphs, and; probability of exceedance plots. The pie chart is the simplest display, and shows the expected chances for the average 3-month temperatures to fall within each of the three categories of above, near and below normal, based on the climatic reference period 1971-2000. The legend to the right of the pie chart provides the interpretation information. Refer to Figure 8.

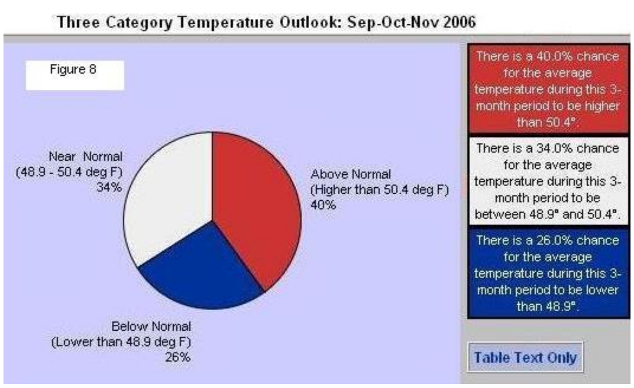


Figure 8

L3MTO Temperature Range Graphs show, at a glance, the thirteen future 3-month strings in one plot (Figure 9). The graph displays the expected range of the average 3-month temperatures along the y-axis in Fahrenheit, with each of the thirteen 3-month forecast periods on the x-axis. When the page is opened, the display defaults to the 99% confidence level. This means there is a 99% chance that a given temperature will fall within the range shown for the 3-month period. To the right of the graph is a pull-down menu (circled in red) which allows the user to choose a different confidence level for comparison. When the confidence interval is changed, the graph, and corresponding table below it, updates. You can click on the "Text Discussion" button (circled in blue) for further clarification. For reference, the 1971-2000 median value is also plotted on the graph with a red + sign. The median value is the "middle" point of the data distribution, where 50% of the observations are greater, and 50% are lower.

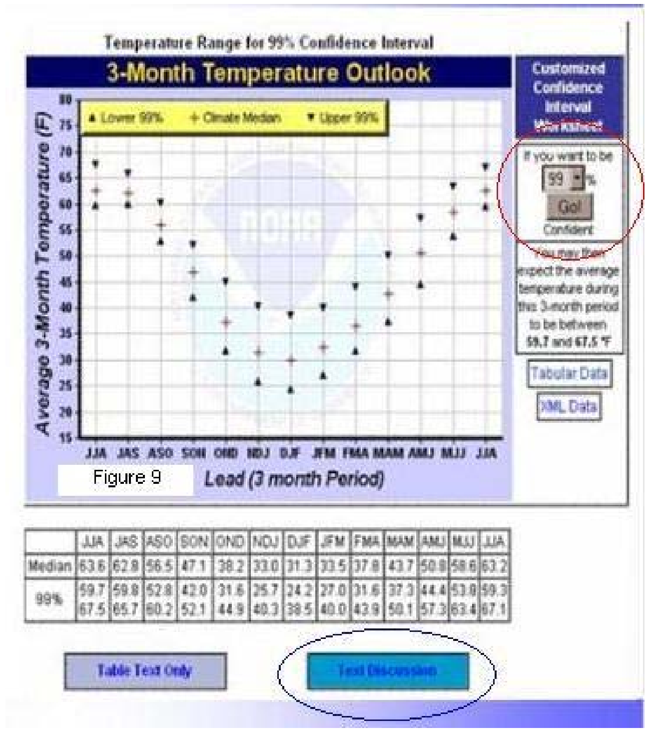


Figure 9

	JJA	JAS	ASO	SON	OND	NDJ	DJF	JFM	FMA	MAM	AMJ	MJJ	JJA
Median	63.6	62.8	56.5	47.1	38.2	33.0	31.3	33.5	37.8	43.7	50.8	58.6	63.2
99%	59.7	59.8	52.8	42.0	31.6	25.7	24.2	27.0	31.6	37.3	44.4	53.0	59.3
	67.5	65.7	60.2	52.1	44.9	40.3	38.5	40.0	43.9	50.1	57.3	63.4	67.1

The L3MTO Probability of Exceedance (POE) graphs provide the most detailed information. For any given station, the graph shows the expected percent chance, along the y-axis, of the average 3-month daily mean temperature exceeding (being greater than) a given temperature along the x-axis (See Figure 10). For the station in question, the red curve is 'climate', or normal, POE for the 1971-2000 period, and the green curve is the POE outlook, or forecast. The vertical lines are the average of the daily mean temperatures for the last five years of the three-month string.

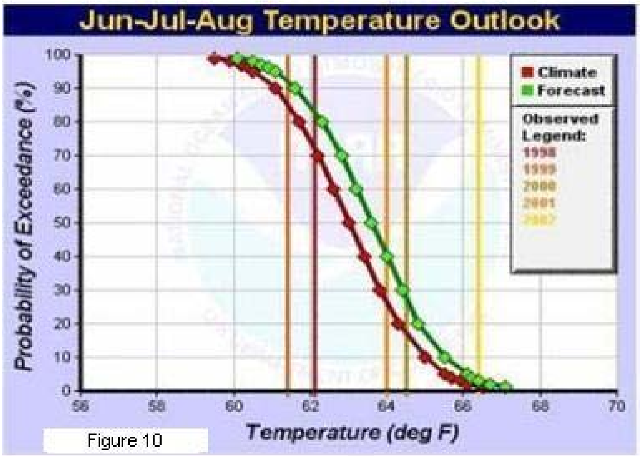


Figure 10

How do you interpret the POE graph? In Figure 11, let's look at a specific temperature…55.6°F. Based solely on the historical climate records from 1971 to 2000, one would expect a 50% chance that the average 3-month temperature will exceed 55.6° degrees at the station. However, the outlook, or forecast, for an actual 55.6° indicates a greater probability…70%. The interpretation, therefore, is that there's actually a 20% greater chance than would normally be expected that the average 3-month temperature will be greater than 55.6°.

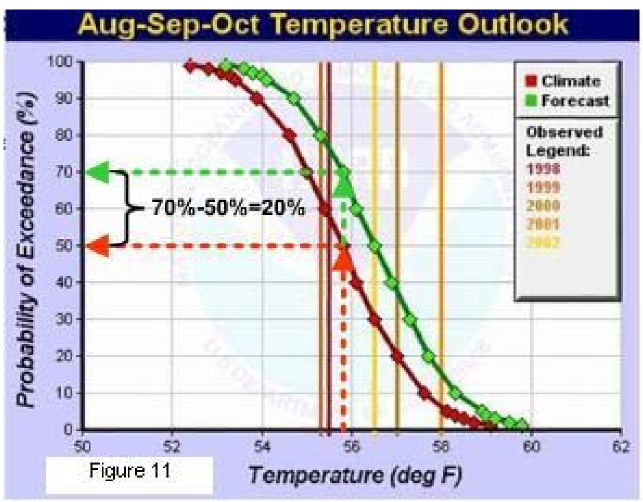


Figure 11

Occasionally, the green outlook curve will overlap the red climate curve (Figure 12). This occurs when the forecast tools used by CPC to create the outlook do not produce reliable-enough data to provide a confident forecast, and the best guidance available is based on the historical climatological information.

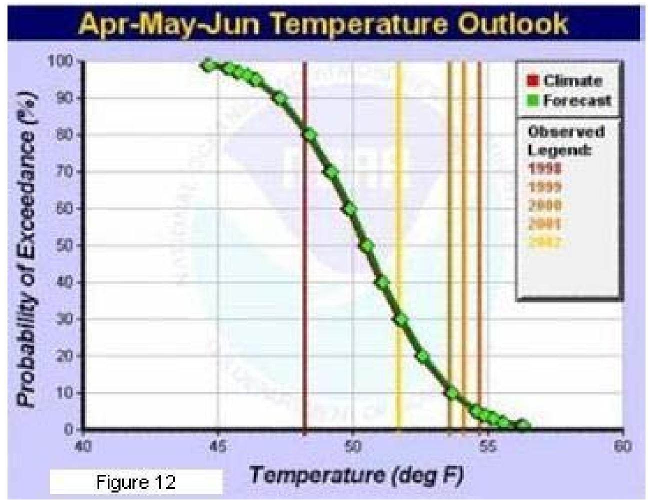


Figure 12

Further information about the L3MTO and the different formats it's displayed in can be obtained from the L3MTO web page under the "Background Information" tab (Figure 13).

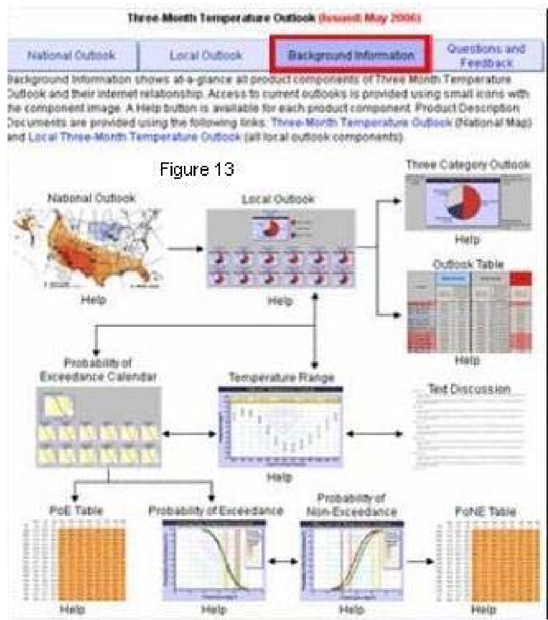


Figure 13

You can provide feedback about the L3MTO, and ask specific questions by clicking on the "Questions and Feedback" tab. Other questions, comments or suggestions regarding our climate page can be directed to the NWS Albany webmaster at: Alywebmaster@noaa.gov.

MY VISIT TO A CONTROLLED BURN

Hugh Johnson
Meteorologist, NWS Albany

The Albany Pine Bush Preserve Commission conducted their 6th Annual Controlled Burn on the Pine Bush grounds on Thursday, August 24th. I was fortunate to have been able to attend this particular burn session. Weather conditions had put the controlled burn on hold on several occasions. My forecast from the day before foretold of a cloudy day with a 40 percent chance of rain, along with temperatures holding in the 60s. Because this threat of rain was in the 'chance' category, the controlled burn was placed in 'wait and see' mode.

The day of the controlled burn didn't turn out exactly as expected. Some showers fell south of Albany very early in the day, and a short wave moved north of the Capital District during the morning, touching off showers across the Southern Adirondacks. There were no showers affecting the immediate Albany area. The clouds even broke up partially, allowing temperatures to reach well into the 70s. A light northeast wind prevailed as expected.

About fifteen people from the Preserve, as well as a couple from the Massachusetts Conservatory, also attended the burn. Craig Kostrzewski, a fire weather specialist and the new Director of the Pine Bush Preserve Commission, was the Line Supervisor, and Joel Hetch, the Operations Supervisor, for the burn. Everyone gathered at the end of Madison Avenue (past the western end of Washington Avenue, at the westernmost portion of the Albany city limits) around 9 a.m.

Just prior to the gathering, Joel had called me during duty at the Albany National Weather Service Forecast Office for a briefing in order to decide whether to carry out the burn. I provided an update of the weather situation. Once at the site, I called the weather office, and spoke with Joe Villani, one of the forecasters on duty. Based on radar data and trends, we both agreed that the threat of rain was minimal, probably closer to a 20 percent chance than a 40, and not until later in the day. But another concern at the time was the relative humidity. Even as late as 9 a.m., there remained dew on the grass in shaded areas. To figure the relative humidity (RH), I had the privilege of slinging a psychrometer (every meteorologist's dream). My initial input was a dry bulb temperature of 68º, and a wet bulb temperature of 62°. This translated to an RH of 65%, which was very close to the reading at the weather office. Joel indicated that, for a controlled burn, ideally, the RH should be about 40%. Our Fire Weather Forecast indicated a low RH of 50% for that area by afternoon. We had to wait until the dew burned off, and the RH dropped below 60%. Thus, the pre-burn briefing was held off until after 10 a.m.

The briefing included a safety drill on how to properly deploy a fire emergency tent. Joel discussed many safety rules, and emphasized the lines of communication. This was followed by an extensive walk through the sections of the Pine Bush that were to be included in the day's burn. It was explained that excessive underbrush was affecting the health of the native shrub pines, resulting in a buildup of fine fuels, which constitutes an increased fire danger during dry periods.

We reassembled at the starting point around noon, and Joel and the rest of the team continued to prepare for the burn. I took another weather observation. Due to breaks of sunshine, the dry bulb temperature had risen to 74°, and the wet bulb was 63°, yielding an RH of 58%. The wind was very light, and mainly northeast. I then began providing half-hour weather observations close to the burn site. By 12:30 p.m., most of the group had set up in their assigned spots inside the Pine Bush to commence a test burn. My 12:30 p.m. readings were: a temperature of 76°, and; a wet bulb of 63°; so, the RH was down to 53%. The wind remained very light northeast. A gust to 8 mph was noted. I called Joe back at the office, and we both agreed that any further wind gusts would likely be no higher than 10 mph. After relaying this information to Joel, the command to begin the test burn was given.

The test burn was required in order to see how the fire would behave. The biggest challenge was to keep the smoke from moving across the Thruway, which was less than a thousand feet to our northeast. Since the winds were mostly light, the goal was to control the spread of the fire by producing a 'strip' fire, with heat-induced convection producing tall flames parallel to one another, at about 10-foot intervals.

The results of the test burn indicated that the fine fuels were a little wetter than optimal (about 15% moist vs. the ideal value of around 10%), yet it was acceptable enough so that Joel was able to give the green light to commence the actual burn. People trained in fire behavior ignited the fire by lighting matches to gasoline. The smoke that was produced rose mostly vertically, as desired, and well over a hundred feet into the atmosphere. Another important factor in a controlled burn is the Haines Index. This index is an indicator of low-level instability. Ideally, it should be around a 4 or a 5, not the less stable 3 that was forecast for the day. The calculated index was actually closer to a 4, and according to Joel, the fire behaved as if it were indeed a 4. The flames reached about four feet high and burned only the underbrush, not the pines themselves. It had been more than two decades since this specific area had last been burned. The burn took only about an hour, and Joel stated that drier vegetation (fuels), and about 10 percent lower relative humidity would have cut the burn time in about half.

After the burn, there was a debriefing, which was of shorter duration than the pre-burn briefing. Joel and Craig both felt that while much underbrush didn't burn due to high moisture, the operation was wholly a success. They indicated that another burn in the same vicinity is likely sometime in the near future. I didn't stay for the 'mop-up', as I wasn't permitted to return to the still-smoldering areas without official fire safety certification. During the debriefing, one fire briefly flared up to about 6 feet high, but I was assured it would quickly extinguish.

This was a great experience for me. Attending the burn enhanced my knowledge of outdoor fire control and prevention. Plus, I was able to apply my own weather observing skills to the situation. I also learned that folks are making good use of the fire weather information found on our local National Weather Service website.

AUTOMATED FLOOD WARNING SYSTEM GRANTS AVAILABLE

Steve DiRienzo
Service Hydrologist, NWS Albany

Automated Flood Warning System grant proposals are being accepted through October 31st, 2006. The objective of the Automated Flood Warning System (AFWS) Program is to reduce loss of life and property in communities with flood and flash flood problems, and to increase the lead time for disaster response. Program funds are used to create, renovate or enhance rain and stream gage networks that are locally operated, and maintained with non-NOAA resources. NOAA funds are used primarily to buy equipment, and secondarily to obtain specialized, short-term expertise to assist in design and implementation. Information collected and disseminated from these networks is used by local communities to increase their lead time for disaster response, and by the National Weather Service (NWS) for its forecasts and warnings.

The AFWS program will give priority to those applicants demonstrating need for an existing or proposed AFWS serving an area with significant flood and flash flood risk, and ability to operate and maintain an AFWS without NOAA resources. Data received by NOAA will be redistributed to the public without restrictions. Proposals up to $100,000 may be submitted. It is anticipated that 5 to 10 awards will be granted each year. Funding shall be in the form of a grant. No cost-sharing is required under this program. However, applicant resource commitment will be considered in the competitive selection process. The award period shall not exceed 24 months, with an anticipated start date of May 1, 2007.

State and local governments, and non-profit organizations are eligible to compete for the AFWS grants based on published evaluation criteria. Proposal evaluation criteria include flood risk, technical merit, budget, sustainability, and public benefit from the rain and stream gage networks. Applications should be submitted through www.grants.gov. Search www.grants.gov for the grant opportunities under C.F.D.A. 11.450. If you have questions, please contact me at (518) 435-9571 x234.

The deadline for receipt of proposals is 4:00 p.m. Tuesday, October 31, 2006. Applications submitted online through Grants.gov will be accompanied by a date and time of receipt indication on them. If an applicant does not have internet access, hardcopy proposals will be accepted, and date and time stamped when they are received. Please contact John Bradley, NOAA/NWS; 1325 East-West Highway, Room 13396; Silver Spring, MD 20910-3283, or by phone at 301-713-0624 ext. 154, or fax 301-713-1520 to request further information. Applications received after the deadline will not be reviewed.

THE FOGGIEST TIME OF THE YEAR

Bob Kilpatrick
Hydrometeorologist, NWS Albany
and
Evan L. Heller
Meteorologist, NWS Albany

As the days get shorter, and the nights get longer, we tend to get an increase in both the frequency and severity of fog during the predawn hours in and around the Capital Region. While fog can occur any time of year, dense fog poses the greatest problem from late August through late October. There are a number of reasons for this.

The first reason, as mentioned before, is that the nights get longer. The sun reaches its northern zenith, directly overhead the Tropic of Cancer, around June 21st. From then on, it starts making its way southward, and around September 22nd, crosses the equator on its way 'down under'. Not only are the days getting shorter, the sun is getting lower, so the sun isn't heating the air and ground as directly as it did during June and July. Even more important is the fact that the nights are getting longer. After sunset, when the sky is clear, heat rises from both the ground and surrounding air, and escapes into space. This process, known as radiational cooling, occurs as calm winds allow air to cool to the dew point temperature. Long nights, therefore, give this process extra time to occur, while the shorter days help keep temperatures closer to the dew points, requiring less time to form fog once the nightly process commences. Once the dew point is reached, moisture in the air condenses and forms 'radiation fog'. This kind of fog is also often formed in valleys when cold air 'drains' from surrounding hills. Oftentimes, hilltops and mountain peaks will be in the clear, above the fog layer.

Fog also forms in the fall as a result of cool air overlying the still-warm waters of lakes and large rivers. One often observes 'steam fog' rising off a warm lake surface on a cool morning. This kind of fog is predominate over and near mountain-surrounded lakes, where cool air drains off the higher terrain, and flows over the warm water which adds moisture to it. Trees and plants add even more moisture to the air through transpiration, exacerbating steam fog. Steam fog is common until the first freeze in fall begins to wind down the process.

Steam fog doesn't occur every fall morning, and there are several reasons why. For one thing, when a cold air mass crosses the Great Lakes, moisture from the lakes often forms low clouds, and rain or snow showers instead. Major low pressure systems and fronts also are accompanied by clouds and precipitation. Oftentimes, such systems will even spread out a veil of high-level cirrus or cirrostratus. The cloud cover quells the radiational cooling process, making fog formation unlikely. Additionally, when there's a strong pressure gradient between high and low pressure systems over the area, winds result which, through mixing, prevent radiational cooling and, thus, fog formation.

Most fog forms mainly between Midnight and 3 a.m., and is usually at its worst between 4 and 7 a.m., just before sunrise. But once the sun rises, it begins to heat the air at the top of the fog layer, and the fog eventually burns off. This may not occur, however, if it becomes cloudy above the fog layer.

Dense fog can be more than just a nuisance. Fog has a big impact on the transportation industry, especially commercial aviation. Planes must carry tons of extra fuel in case they are re-routed to another airport. In some cases, passengers have to be shuttled to their final destinations, and luggage and cargo gets left behind. At busy airports such as Chicago O'Hare and Atlanta Hartsfield, inbound flights can be significantly delayed, and everything backs up as extra care has to be taken to keep planes a safe distance apart. Some flights may be cancelled. Automobile travel is also affected. Some of the worst multiple-car pile-ups occur when drivers suddenly encounter dense fog on highways. After an initial collision, oncoming vehicles may not see the accident in time to avoid plowing into it.

Fog in a forecast is often worded as 'patchy early morning fog' or 'areas of fog after midnight'. Because there are so many local variables, it's impossible to forecast fog on a site-specific basis. Even the airports for which we prepare site-specific aviation forecasts usually need to have their forecasts updated from hour to hour for fog.

Drivers are profoundly affected by fog, and when it's forecast, one should be prepared for rapid changes in visibility. Because the chance of an automobile accident increases as fog thickens, it's best to avoid driving in fog, if possible. Wait for conditions to improve. When the fog is not so thick, you can usually see far enough ahead to be able to stop safely. If driving a car with fog lights, use them in dense fog. If not, be sure to use only your low-beam headlights, so as to avoid the bright reflective glare from high-beams that can impede your driving. It's also not safe to drive with only your parking lights on. They're not bright enough in foggy conditions for you to be seen. Also be sure to reduce your speed and allow plenty of distance between your vehicle and the one ahead of you. Don't drive so slow, though, that you'll be a 'sitting duck'. If the forecast calls for fog, allow extra time for your trip, and arrive at your destination safely.

IN MEMORY OF STEPHEN R. PERTGEN

Gene Auciello
Meteorologist In Charge, NWS Albany

Stephen R. Pertgen, Data Acquisition Program Manager and Cooperative Program Manager, National Weather Service, Albany, New York, passed away suddenly on Monday, August 21st. Steve was a dedicated Federal employee with extremely high standards, an excellent work ethic, and a love for the job. He especially enjoyed visiting with Cooperative Observers during station visits, coordinating with SKYWARN Spotters via SKYWARN radio station WX2ALY, and collaborating with Emergency Managers in the field during storm surveys. A memorial service for Steve was held at the Schodack Landing Fire Department on August 25th. Donations in memory of Steve Pertgen may be made to the Schodack Landing Fire Company, Firehouse Lane, Schodack Landing, NY 12156.

The following article serves as a tribute to Stephen R. Pertgen, our Data Acquisition Program Manager. It was his final contribution to StormBuster, and was extracted from the Winter 2004/05 edition.

2004 NATIONAL SKYWARN RECOGNITION DAY

Steve Pertgen
SKYWARN Operations Manager, NWS Albany

As in past years, this year's event was great! Despite some poor propagation on a few of the bands, we worked a total of 177 stations, including 43 National Weather Service Office stations.

Yours truly (WX2ALY/W2FXJ) held down the fort from Friday, December 3rd at 7 p.m. through Saturday, December 4th at 7 p.m., with Dennis Hudson (N2LBT) manning the digital fort from mid-morning Saturday through the end of the event. Many thanks to Dennis and his digital prowess, as he was able to make contact with approximately 45 stations through the use of IRLP and Echo Link.

As has been the case in past years, volunteers in the local vicinity have been hard to come by, so we worked the bands that were open, one at a time. Ten and fifteen meters were pretty much a lost cause, while twenty meters yielded some nice QSO's from the midwest. We also made several long distance contacts on 75 and 40 meters.

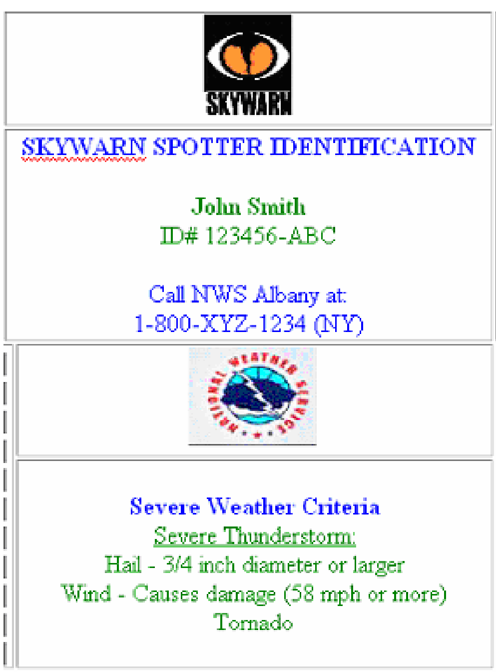
The fact that we were able to contact so many National Weather Service offices proves that the use of radio communications is a viable course of action during significant weather events when conventional long-line communications are not functioning.

Our heartfelt thanks to you, our SKYWARN spotters, for your sacrifices in providing us with the critical information we need to provide high-quality forecasts and warnings to the citizens in our area. I hope that you who are licensed hams were able to enjoy this event.

SKYWARN SPOTTER ID CARDS ON-LINE

John S. Quinlan
SKYWARN Coordinator, NWS Albany
and
Vasil T. Koleci
Information Technology Officer, NWS Albany

Beginning October 4, 2006, all current SKYWARN Spotters is eastern New York and adjacent western New England will be able to be print their own SKYWARN ID cards. This feature will save the National Weather Service at Albany time, effort and resources, and afford SKYWARN Spotters the convenience of being able to print cards as often as they like. The link for the SKYWARN Spotter ID cards will be:
http://cstar.cestm.albany.edu:7775/skywarn/spottercard.htm.
Once inside, you will see a text box which will ask for your home phone number. Simply type it in and click the submit button. Once your home phone number has been submitted, the SKYWARN Spotter database will be searched, and a card will be created which will include your name, ID number, date when you were last trained, and our 800 number for reference on one side, and the definition of a Severe Thunderstorm on the other. Simply print the card and fold at the dashed line, and you are done. Here is an example of the card:



FALL 2006
ADVANCED SKYWARN SPOTTER TRAINING & WINTER WEATHER WORKSHOPS

John S. Quinlan
SKYWARN Training Coordinator, NWS Albany

Date	*Day*	*Time*	*County*	*City or Town*	*Location*
10/16/06	MON	1900-2100 (7-9 PM)	HAMILTON	LAKE PLEASANT, NY	LAKE PLEASANT FIRE DEPARTMENT CR 11/SOUTH SHORE RD.
10/18/06	WED	1900-2100 (7-9 PM)	FULTON	JOHNSTOWN, NY	FULTON COUNTY FIRE TRAINING CENTER 133 SUN VALLEY RD.
10/19/06	THU	1900-2100 (7-9 PM)	SCHOHARIE	SCHOHARIE, NY	COUNTY OFFICE BUILDING EMS TRAINING ROOM IN BASEMENT (COUNTY ELEVATOR OUT OF SERVICE) 329 MAIN ST.
10/24/06	TUE	1900-2100 (7-9 PM)	ULSTER	KINGSTON, NY	HOSE #5 FIRE HOUSE 830 ULSTER AVE.
10/25/06	WED	1900-2100 (7-9 PM)	BENNINGTON	BENNINGTON, VT	BENNINGTON FREE LIBRARY 101 SILVER ST.
10/28/06	SAT	1000-1200 (10 AM-NOON)	WASHINGTON	FORT EDWARD, NY	PUBLIC HEALTH TRAINING FACILITY (YELLOW BUILDING BEHIND COUNTY ANNEX) OFF BROADWAY
11/08/06	WED	1830-2030 (6:30-8:30 PM)	HERKIMER	HERKIMER, NY	911 CENTER AT HERKIMER COUNTY COMMUNITY COLLEGE
11/09/06	THU	1900-2100 (7-9 PM)	BERKSHIRE	PITTSFIELD, MA	PITTSFIELD EMO 235 TYLER ST.
11/13/06	MON	1900-2100 (7-9 PM)	ALBANY	ALBANY, NY	CESTM 1ST FLOOR AUDITORIUM 251 FULLER RD
11/20/06	MON	1900-2100 (7-9 PM)	COLUMBIA	HUDSON, NY	NOECKER BUICK/PONTIAC INC. 92 UNION TURNPIKE

The Advanced SKYWARN Spotter Training Sessions and Winter Weather Workshops are open only to current SKYWARN Spotters, as some of the material presented assumes prior knowledge. These sessions not only focus on Severe Local Storms, but also train spotters on Winter Storms and Flooding, including Ice Jams.

SKYWARN is a nationwide network of volunteer weather spotters who report to, and are trained by, the National Weather Service (NWS). These spotters report many forms of significant and severe weather, such as Severe Thunderstorms, Tornadoes, Hail, Heavy Snow and Flooding.

The staff at the NWS Forecast Office in Albany is responsible for issuing local forecasts and severe weather warnings for much of eastern New York, southern Vermont, western Massachusetts and northwest Connecticut. SKYWARN Spotters provide an invaluable service by providing ground truth on the atmosphere that we observe using radars, satellites and reporting stations. These spotters act as our eyes and ears in helping us provide quality forecasts and timely warnings. Check out the National SKYWARN Homepage.

It's easy to join SKYWARN. All that's required is attending an enjoyable 3-hour training session. These sessions are offered in the spring for new spotters and those needing a refresher course, with advanced sessions offered in the fall. The sessions are held throughout our County Warning Area. Upcoming sessions are announced on our NOAA Weather Radio stations, and posted on our web site. The spotter network is usually activated whenever there's a threat of severe weather. This is usually preceded by the issuance of a Severe Thunderstorm, Tornado or Flood Watch, or some other type of watch. SKYWARN reports can be relayed from any location, be it at your office, on the road, or in your neighborhood. Information is relayed to the NWS via volunteer amateur radio operators, telephone and the internet.

Pre-registration is required for all SKYWARN Spotter Training Sessions. Go to www.weather.gov, click on 'eastern New York', and look for the link to SKYWARN Spotter Training. Pre-registration can be done only via the internet. If you do not have internet access, you should check with your local library to see if they do.

WCM Words

Ray O'Keefe
NWS Albany Warning Coordination Meteorologist

Shortly before Steve Pertgen passed away last month we were chatting. He had just returned from an extended vacation and had spent the previous three days catching up on work. Steve admitted to me that he really wanted to be outside, visiting our dedicated COOP observers. Steve loved to be out in the field. He was a dedicated federal employee and a great colleague. I will miss him.

Please take note of a couple of important Skywarn items in this edition of StormBuster. We have 10 Skywarn training sessions scheduled this fall. I urge you to attend one of them. On-line Skywarn cards are now available. My thanks to John Quinlan and Vasil Koleci for getting this program up and running.

From the Editor's Desk

With this issue, we've changed our motto. Northeastern StormBuster is now the 'Emergency Manager & Storm Spotter Magazine'. In addition, we've switched to a more visually enhanced SKYWARN logo. I'd like to thank all our contributors. We hope you enjoy their offerings as we head into the cooling season. We look forward to getting back with you in the next few months at the winter holidays with another exciting issue. In the meantime, enjoy the colors, and the rest this wonderful season has to offer in the Northeast!