

# WEATHERWORKS

## THE WEATHER TRACKER

<http://www.weatherworksinc.com>



PO BOX 7100  
HACKETTSTOWN, NJ 07840  
(908) 850-8600

Edited by:  
Sean Rowland and  
Ken Elliott

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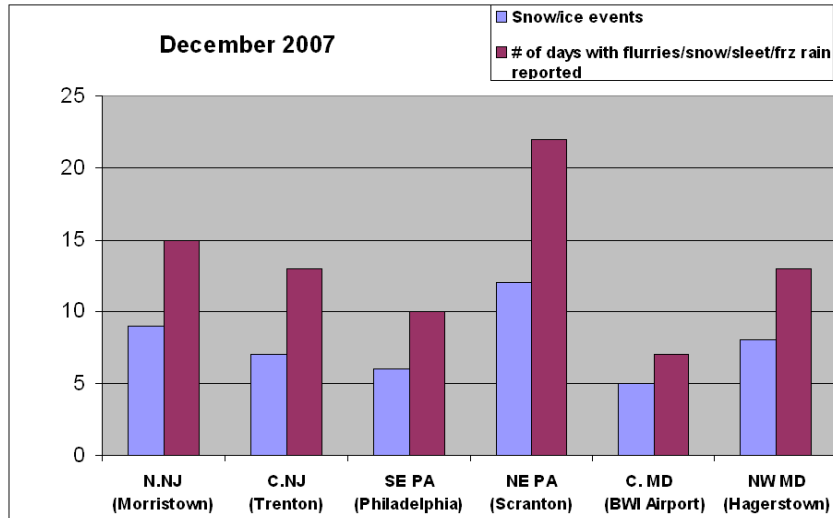
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## 2007 TOP FIVE EVENTS

As we say goodbye to 2007 and ring in 2008, WeatherWorks takes a look at the top events of the year!

- 1) **Feb 13-14:** Major winter Storm produces significant sleet
- 2) **Mar. 16-17:** Temp drop of 30-40 degrees with more sleet and ice
- 3) **Jan. 6:** Many locations hit 70 degrees breaking several records
- 4) **Apr 15:** Very powerful Nor'easter bring hvy rain, wind and snow
- 5) **June-Sep:** Drought conditions intensified across S. Mid-Atlantic

## A Busy and At Times Active December



The chart to the left shows that even though the amount of snow and ice was not significant this past month, the frequency of threats and minor work that needed to be done was high. In fact, in nearly half the days of the month North Jersey featured at least a little snow, sleet or freezing rain.

The winter sure got off to a quick start across the Mid-Atlantic as the first ten days of the month featured a threat nearly every other day. Despite the constant snow/ice threats, there was only one significant and widespread event and that was the clipper system on December 5th. This produced the most snow across Maryland with 3-6 inches common across most

areas. For snow totals in your locations be sure to [log on](#) to our Certified Snow Program.

In the active, fast-moving pattern we saw a return to the dreaded five letter s-word... sleet. However, a new wrinkle was added in that freezing rain became a major player and this was especially true in SE PA with a few ice events.

Despite the conditions in the first half of December, monthly temperature averages were actually near normal. Snowfall averages varied significantly with some spots well above normal (NW NJ - MD) and others below normal (DE, S NJ). January looks variable as well with higher fluctuations in temperatures.

## Tackling Winter's Challenges: Sleet



Sleet cover in N.NJ 12-17-07

In prior issues of The Weather Tracker, we have briefly touched on the topic of sleet. Let's take a more in depth look at how to handle sleet as the **Tackling Winter's Challenges** series continues.

Over the last year, it seems all

the atmosphere wants to do is produce sleet. In-house research has begun to try and learn why their has been an increased propensity for sleet over the last several events. Sleet is formed when there is a shallow layer of warm air above the surface and then colder air beneath that. This allows the snowflake to melt to rain and then refreeze into ice pellets. Surface temps could be well below or above freezing, the important feature is how temps aloft behave.

Sleet can be difficult for snow and ice removers because a

quick shot of sleet can rapidly cover pavements, even at above freezing temps. Road departments and contractors need to be aware and prepared for the problems that coverings of sleet can cause.

The other issue that makes sleet a challenge is when a lot of it falls, it can become very difficult to remove the accumulation (see special report on the [Valentine's Day storm](#)). A lot of man hours goes into working similar event. This is where surface temperatures are critical, to help determine what happens after the storm.

**Website of the Month**



<http://www.youtube.com/watch?v=EHTXh3R66hE>

Don't make a meteorologist mad!!! This website of the month shows the lighter side of the media aspect of weather. A couple additional videos are on the right side

**Welcome New Clients!**

Welcome to all that are new with Weather Works this season! The Weather Tracker is the monthly newsletter from the company. You will find useful weather related articles as well as any important company information that needs to be shared.

Also, all of the past Weather Tracker's are archived on the website.



**UPCOMING EVENTS**

Feb. 14-17 NJ Flower & Garden Show  
Edison, NJ

**JANUARY AVERAGES (30 year averages: 1971-2000)**

	Sussex, NJ		Philadelphia, PA		Baltimore, MD (BWI)	
	Jan 1	Jan 31	Jan 1	Jan 31	Jan 1	Jan 31
High Temp	35	35	40	39	42	42
Low Temp	16	14	27	25	24	24
Precip (Mo. Total)	3.83"		3.52"		3.47"	
Snowfall (Mo. Total)	11.3"		6.4"		7.0"	
Sunrise	7:24 AM	7:11 AM	7:22 AM	7:11 AM	7:26 AM	7:13 AM
Sunset	4:40 PM	5:13 PM	4:46 PM	5:18 PM	4:54 PM	5:25 PM

**January 2008 Temperature Outlook**

A surge of warm air is expected for the first period of the month. Large temperature fluctuations look likely in January with several cold and warm periods. Expect another arctic break or two.

**January 2008 Precipitation Outlook**

With the temperature fluctuations, we will need to watch for when pattern shifts arrive as there is usually a storm system with those changes. Otherwise, at least a couple snow events are anticipated.

**Tracking Black Ice with an Infrared Thermometer**



Last Month, we highlighted the threats that freezing rain can pose when surfaces are below freezing. In conjunction with the Weather Works alerts that are sent out, you can monitor conditions at your site with a helpful tool: the infrared thermometer.

Most of these sensors have been referred to as infrared and even though the technology is similar,

some are not quite infrared. Regardless of the name, the temperature readings are fairly accurate and one of the more common products is the hand-held thermometer. This "gun" uses simple point and shoot technology as you hold the sensor a few feet off the ground. When the "laser" makes contact with the ground or pavement, the surface temperature is then displayed.

In recent years, mounted thermometers on work trucks have become more popular.

**Editor's Note**

A near perfect set-up on why it is important to have and use an infrared thermometer set up in the first few days of January. An arctic air mass moved in resulting in some very cold temps. After a warm-up, a light rain shower event came thru parts of the area with temps 35-40. However, hand-held measured pavement temps were 23-30. This resulted in rain and wet surfaces that eventually turned into black ice.

**Meeting the Staff at Weather Works**

With the Winter season well underway, WeatherWorks would like to introduce some of the meteorologists that you will be talking with during the season!

First, WeatherWorks is happy to announce that Ken Elliott is now part of our full-time staff. Ken has been working with the company over the past year and many of you likely have talked to him as we set up the contacts for snow and ice alerts this season.

There is a combined 40+ years of forecasting experience on the

staff, including meteorologist Frank Lombardo, founder and president of Weather Works. Some of the other meteorologists that you will be talking with include Tommy Else, Kevin Hopley & Sean Rowland.

Thru the season, different meteorologists will have different areas of responsibility. Most times, Kevin and Sean usually focus on the Mid-Atlantic, Frank will work on North NJ and NE PA, while Tommy and Ken focus on NY and NE. This will often switch



Top left-right: Sean, Frank & Tommy

Bottom left-right: Kevin, Ken

during weekends and other shift changes. We look forward to talking to you and good luck with snow and ice removal this Winter!