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SAMPLE REPORT**



FORENSIC WEATHER CONSULTANTS, LLC



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**FORENSIC WEATHER INVESTIGATION OF THE WEATHER
AND ASTRONOMICAL CONDITIONS ON NOVEMBER 2, 2010
IN FRONT OF 10 MAIN STREET IN BOSTON,
MASSACHUSETTES**

January 9, 2012

CASE NAME: "xxxxxxx"
DATE AND TIME OF INCIDENT: November 2, 2010
PREPARED FOR: Mr. Sunny Sky, Esquire
COMPANY: Lotsofsun Insurance Company

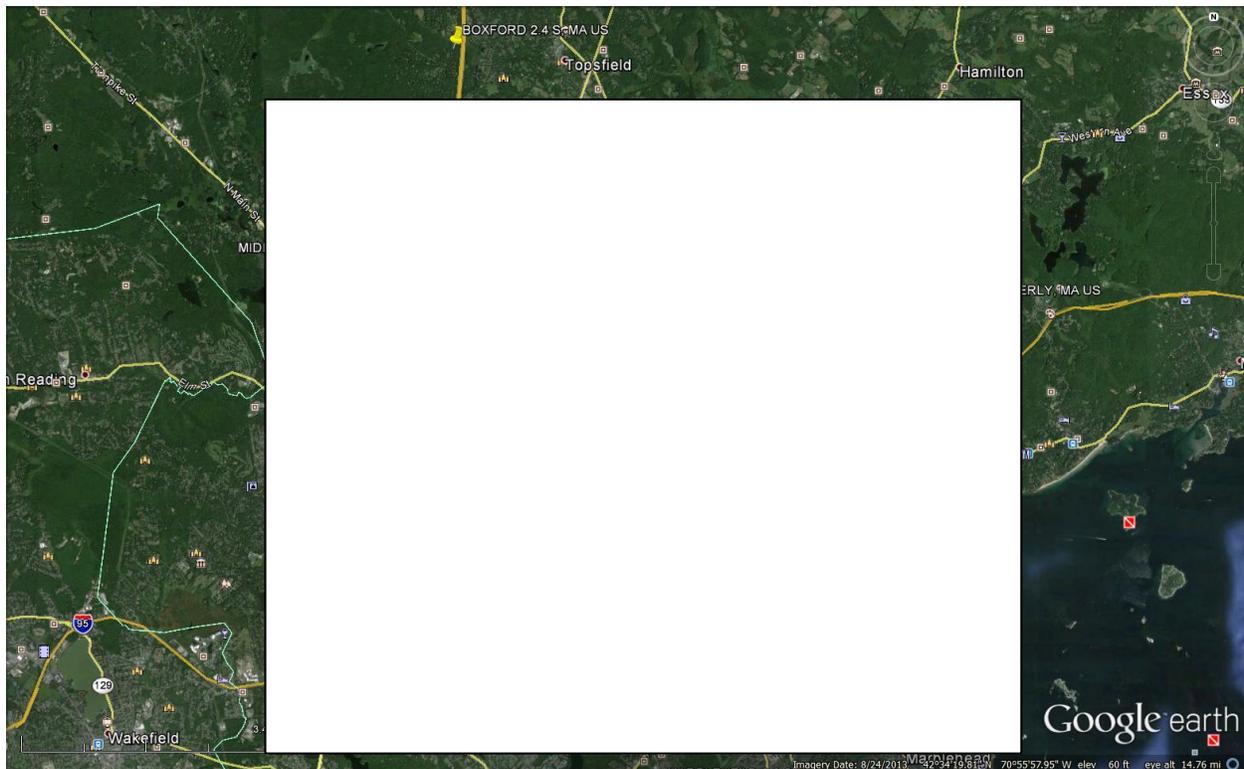
ASSIGNMENT:

This case was assigned to me by the Lotsofsun Insurance Company. I was asked to perform an in-depth weather analysis and forensic weather investigation in front of 10 Main Street in Boston, Massachusetts in order to determine what the weather conditions were leading up to and including the time of this incident.

This written report and all of the tables, graphs, findings and opinions contained in it has been prepared for use with this specific case only. Use of this information for any other matter other than what is indicated above is prohibited.

METHODOLOGY:

Forensic Weather Consultants, LLC uses only the most trusted and reliable sources of weather information that can be certified by the federal government. In order to accurately determine the weather conditions that existed leading up to and including the time of the incident, a detailed search was performed to find the closest, official weather stations to the location of the incident. Using the computer program “Google Earth”, weather station locations provided by the National Climatic Data Center were plotted and are indicated by a yellow pushpin. The location of the incident was plotted by our office and is indicated by a red pushpin. This map will help give you an approximate location of the weather stations we used in this study and their proximity to the location of the incident. A copy of this “Google Earth” map can be found below.



In order to perform my analysis of the weather conditions that existed, I obtained and reviewed official copies of the following weather records (the distance from the incident location and each weather station is also provided):

- a. National Weather Service Hourly Surface Weather Observations/Quality Controlled Local Climatological Data (QCLCD) from Boston Logan Airport in Boston, Massachusetts
- b. 5-Minute Surface Observations from Boston, MA
- c. Cooperative observer weather station reports from Boston 1N, Massachusetts
- d. The publication entitled “Storm Data” for Massachusetts in November 2012.
- e. Super-resolution Reflectivity Doppler Radar images from the Boston, Massachusetts radar site that were zoomed in over the incident location.
- f. Various weather bulletins, advisories and statements that were issued by the National Weather Service in Boston, Massachusetts.
- g. Astronomical Data for Boston, Massachusetts provided by the U.S. Naval Observatory.

The weather data and Climatological records used for this analysis are the official records that Meteorologists rely upon every day during the normal course of business and are either kept in our office or at the National Climatic Data Center. The findings in this report utilize the weather records that were available at the time of data retrieval for this case. Any additional weather records and data that become available at a later date may be incorporated into this report in the future.

Super-resolution Doppler radar images and several other types of weather records were used in this study. Doppler radar images are useful for locating precipitation. As the radar unit sends a pulse of energy into the atmosphere and if any precipitation is intercepted by the energy, part of the energy is scattered back to the radar. These return signals, called “radar echoes”, are assembled to produce radar images. The location of the colored radar echoes indicates where precipitation is falling and the various colors indicate the intensity of the precipitation through the color code key on the right side of the radar image itself. Doppler radar images are received approximately every 6 minutes and can determine if precipitation was falling at the incident location and if so, when it started and stopped.

ANALYSIS ON NOVEMBER 2, 2010 (DATE OF THE INCIDENT):

On November 2, 2010 (day of the incident), Doppler radar images that were zoomed in over the incident location and nearby surface observations indicated that no precipitation fell on the day of the incident. In fact, the sky was clear and no clouds were present at the time of the incident.

- At 6:53 a.m. on November 2, 2010, the sky was clear, the horizontal surface visibility was over 10 miles, the air temperature was 28 degrees Fahrenheit and the wind was coming from the west-southwest at 6 Miles Per Hour.
- At 7:53 a.m. on November 2, 2010, the sky was mostly sunny, the horizontal surface visibility was over 10 miles, the air temperature was 31 degrees Fahrenheit and the wind was coming from the west at 5 Miles Per Hour.

The following table is a summary of the air temperature in degrees Fahrenheit, visibility in statute miles, and the sky condition every half hour from 4:30 a.m. through 10:30 a.m. on November 2, 2010 (including the time of the incident).

NOVEMBER 2, 2010

<u>Time</u>	<u>Temperature</u>	<u>Visibility (SM)</u>	<u>Sky Condition</u>
4:30 a.m.	30	10	Mostly Cloudy
5:00 a.m.	30	10	Mostly Cloudy
5:30 a.m.	30	10	Overcast
6:00 a.m.	28	10	Clear
6:30 a.m.	28	10	Clear
7:00 a.m.	28	10	Clear
7:30 a.m.	30	10	Clear
8:00 a.m.	32	10	Clear
8:30 a.m.	34	10	Clear
9:00 a.m.	34	10	Clear
9:30 a.m.	37	10	Clear
10:00 a.m.	37	10	Clear
10:30 a.m.	39	10	Clear

ASTRONOMICAL DATA:

The following table is a summary of the position of the sun in the sky before during and after the time of the incident. The altitude is the elevation of the sun above the horizon (in degrees) and the azimuth is the location of the sun in the sky (in degrees East of North). As can be seen in the table below, at 7:30 a.m. on November 2, 2010, the sun was located 5.2 degrees above the horizon and approximately 125.7 degrees East of Due North. That is, the sun was above the horizon in the Southeastern Sky.

Time	Altitude	Azimuth
7:00 a.m.	0.9	120.4
7:10 a.m.	2.3	122.2
7:20 a.m.	3.8	123.9
7:30 a.m.	5.2	125.7
7:40 a.m.	6.7	127.5
7:50 a.m.	8.1	129.3
8:00 a.m.	9.5	131.2
8:10 a.m.	10.8	133.1
8:20 a.m.	12.2	135.0
8:30 a.m.	13.4	137.0
8:40 a.m.	14.7	139.1
8:50 a.m.	15.8	141.9
9:00 a.m.	16.9	143.3

CONCLUSIONS

In conclusion, it is my opinion that:

- At 7:30 a.m. on November 2, 2010 (time and date of the incident), the sky was clear, the horizontal surface visibility was at least 10 miles, the air temperature was 30 degrees Fahrenheit, the wind was coming from the west at 6 Miles Per Hour and the sun was located 5.2 degrees above the horizon, 125.7 degrees East of Due North (which is in the southeastern sky).

CERTIFICATION

I certify that the above information contained in this report is true and accurate to the best of my ability and that all of my opinions, findings, estimations and interpolations expressed in this report were made with accuracy as a professional meteorologist within a reasonable degree of meteorological certainty.

By: _____
Howard Altschule
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