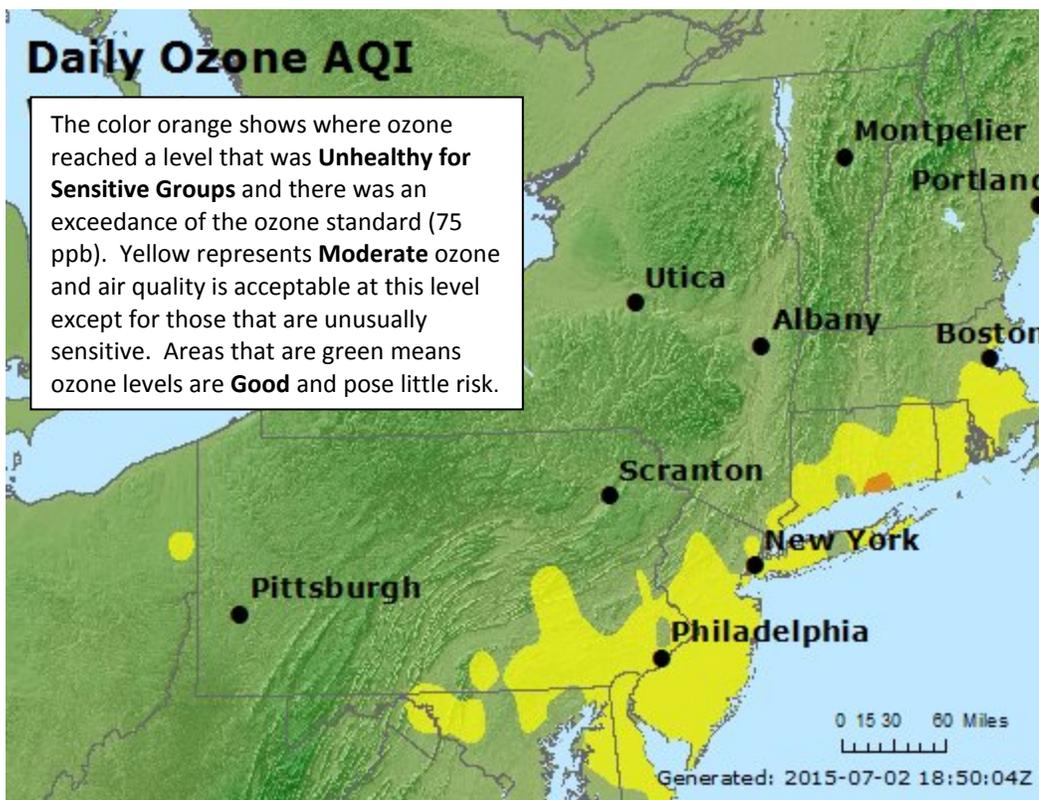


Ozone National Ambient Air Quality Standard Health Exceedance on July 1, 2015

Exceedance Location and Levels

On Wednesday, July 1, 2015, an exceedance of the 8-hour average 75 ppb NAAQS for ozone was recorded at one (1) Connecticut station: Madison Beach Road with a concentration of 78 ppb. The highest 1-hour average ozone concentration recorded on July 1, 2015 was 92 ppb, also at Madison Beach Road, which is below the 1-hour NAAQS of 120 ppb. The Madison Beach Road, Connecticut ozone level was the only exceedance in the 5 states that make up the Air Quality Control Region that includes New Jersey. Figure 1 shows the ozone AQI across the region for July 1.

Figure 1. Ozone Air Quality Index for July 1, 2015



Source: www.airnow.gov

For ozone terminology definitions see NJDEP Air Quality Planning's Glossary and Acronyms webpage: <http://nj.gov/dep/baqp/glossary.html>

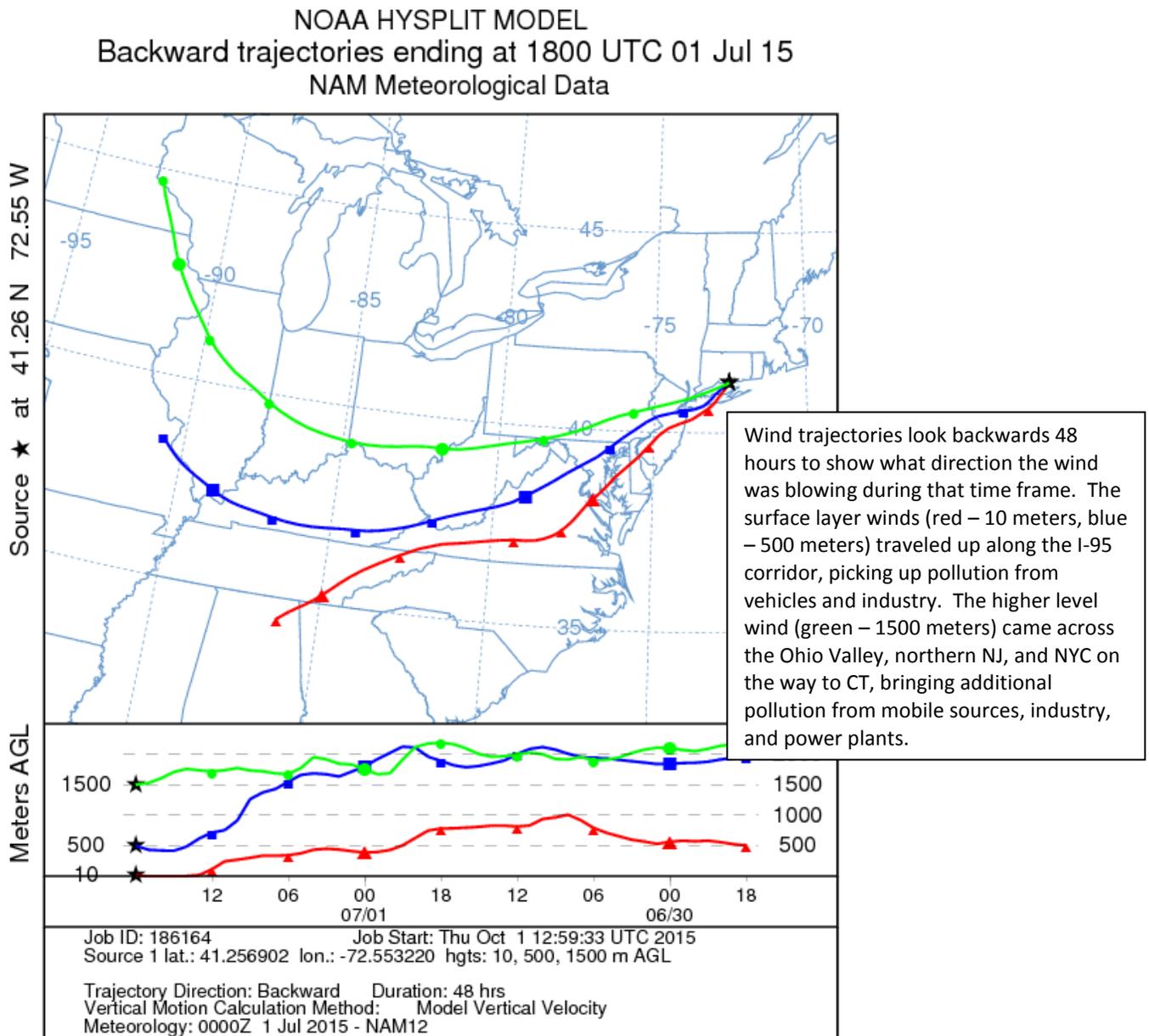
Weather

Meteorological data from Tweed New Haven Airport shows temperatures reached 79° F, while winds were from the south/southwest with an average wind speed of 6 mph. Skies were partly cloudy over southern Connecticut, but there was enough sunshine to promote ozone formation. Sufficient sunlight, combined with warm temperatures and a southwest wind component, are features commonly seen with an ozone exceedance.

Where Did the Air Pollution that Caused Ozone Come From?

Figure 2 shows the back trajectories for the monitored exceedance for July 1. Figure 2 illustrates that low and mid-level winds (red and blue lines) traveled up along the I-95 corridor, where there are significant amounts of air contaminant emissions from cars, trucks and industry. Higher level winds (green line) came across the Ohio Valley, northern New Jersey, and New York City on the way to Connecticut, bringing additional pollution from motor vehicles, industry, and coal - fired power plants. The combination of these winds caused air pollution from a variety of mobile and stationary sources to be transported into the area of southern Connecticut that experienced high ozone on July 1.

Figure 2. 48-hour Back Trajectories for July 1, 2015



How is Smog Created?

Ground-level ozone, also known as smog, is an air pollutant known to cause a number of health effects and negatively impact air quality and the environment in the state of New Jersey. Smog is formed when oxides of nitrogen (NO_x) and volatile organic compounds (VOCs) react in the presence of sunlight. Smog can irritate any set of lungs, but those with lung-related deficiencies should take extra precautions on bad ozone days.

Find Out About Air Quality Every Day

The “What's Your Air Quality Today?” page at <http://www.nj.gov/dep/cleanairnj/> tells you how to sign up to receive notifications and find out when your local air has reached unhealthy ozone levels.