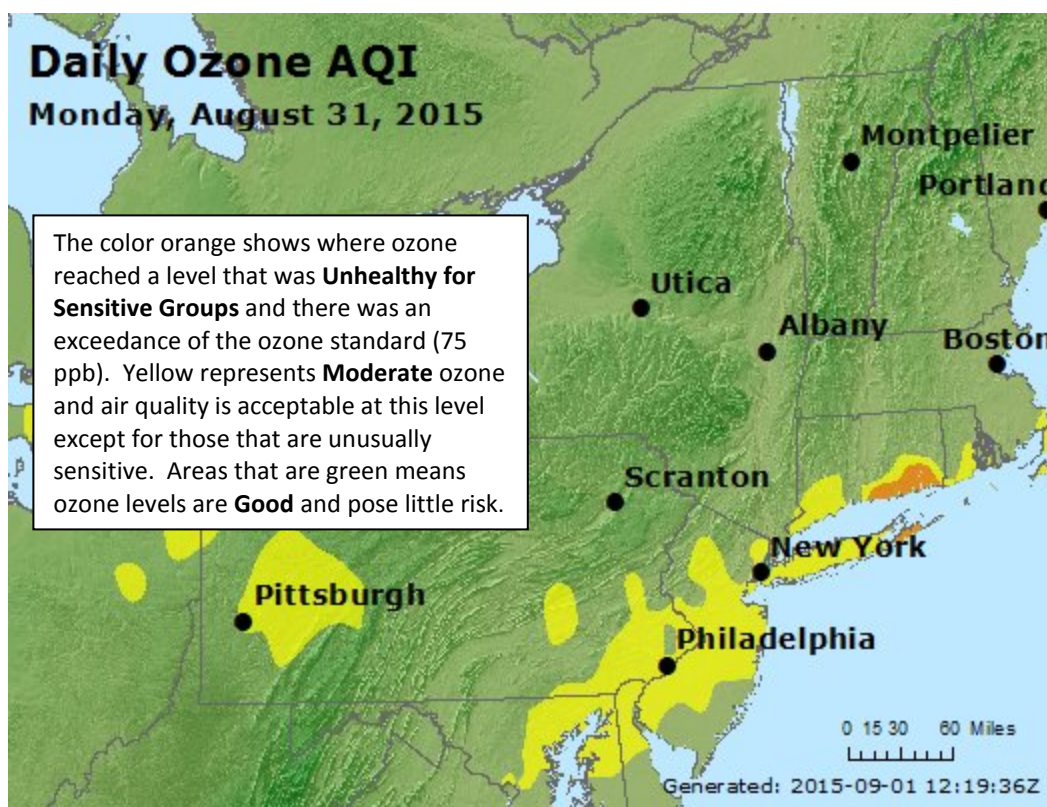


## Ozone National Ambient Air Quality Standard Health Exceedance on August 31, 2015

### Exceedances Locations and Levels

On Monday, August 31, 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 84 ppb. The highest 1-hour average ozone concentration recorded on August 31, 2015 was 96 ppb, also at the Madison Beach Road station in Connecticut, which is below the 1-hour NAAQS of 120 ppb. The Madison Beach Road, CT 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 August 31.

**Figure 1. Ozone Air Quality Index for August 31, 2015**



Source: [www.airnow.gov](http://www.airnow.gov)

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

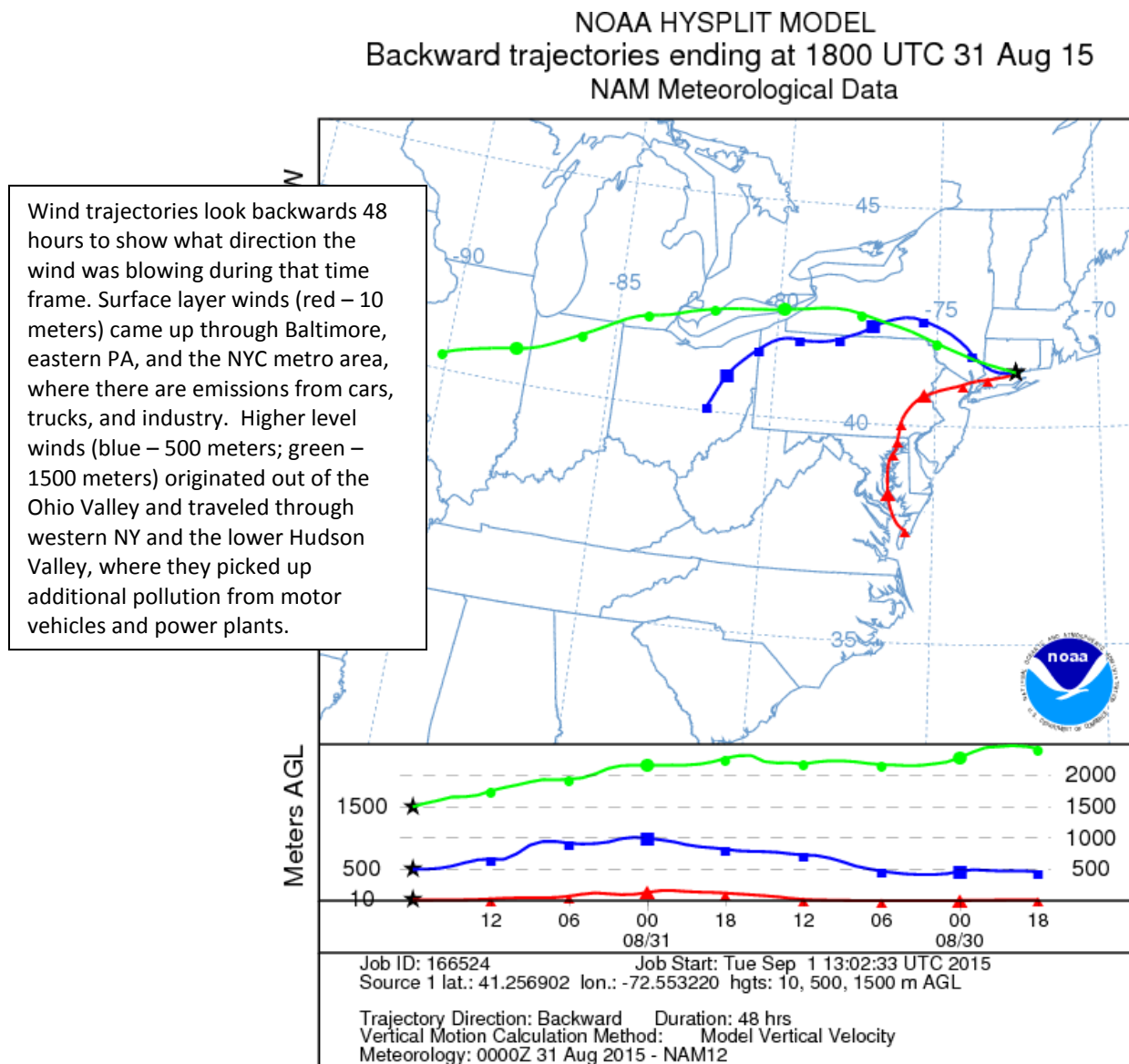
### Weather

Meteorological data from Chester Airport in Chester, CT shows temperatures reached 87° F, while winds were very light and from the southwest. Skies were mostly sunny across the area. Sufficient sunlight, combined with warm temperatures and southwest winds, are all 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 August 31. Figure 2 shows that surface layer winds (red line) traveled up through Baltimore, eastern Pennsylvania, and the New York City metropolitan area, where there are air contaminant emissions from cars, trucks, and industry. Higher level winds (blue and green lines) originated out of the Ohio Valley and traveled through western New York and the lower Hudson Valley, bringing additional pollution from motor vehicles and power plants. The combination of these winds caused air pollution from a variety of mobile sources, industry, and power plants to be transported into the area of coastal Connecticut that experienced high ozone on August 31.

**Figure 2. 48-hour Back Trajectories for August 31, 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 (NOx) 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.