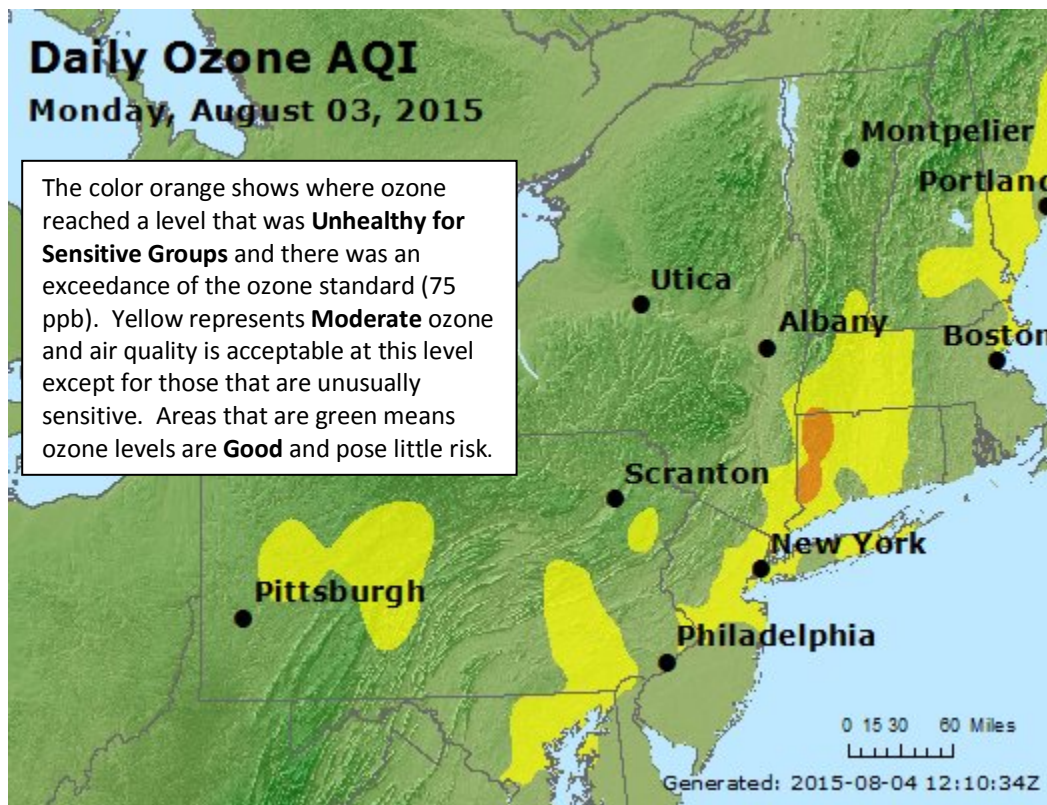


### Ozone National Ambient Air Quality Standard Health Exceedance on August 3, 2015

#### **Exceedances Locations and Levels**

On Monday, August 3, 2015, an exceedance of the 8-hour average 75 ppb NAAQS for ozone was recorded at one (1) Connecticut station: Danbury with a concentration of 79 ppb. The highest 1-hour average ozone concentration recorded on August 3, 2015 was 95 ppb, also at Danbury, which is below the 1-hour NAAQS of 120 ppb. The Danbury, CT ozone level was the only exceedance in the 5 states that make up the Air Quality Control Region that includes New Jersey. The highest 8-hour average ozone concentration recorded in New Jersey was 68 ppb at the Bayonne station on August 3, 2015. The highest 1-hour average ozone concentration recorded was 80 ppb, also at Bayonne. Figure 1 shows the ozone AQI across the region for August 3.

**Figure 1. Ozone Air Quality Index for August 3, 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>

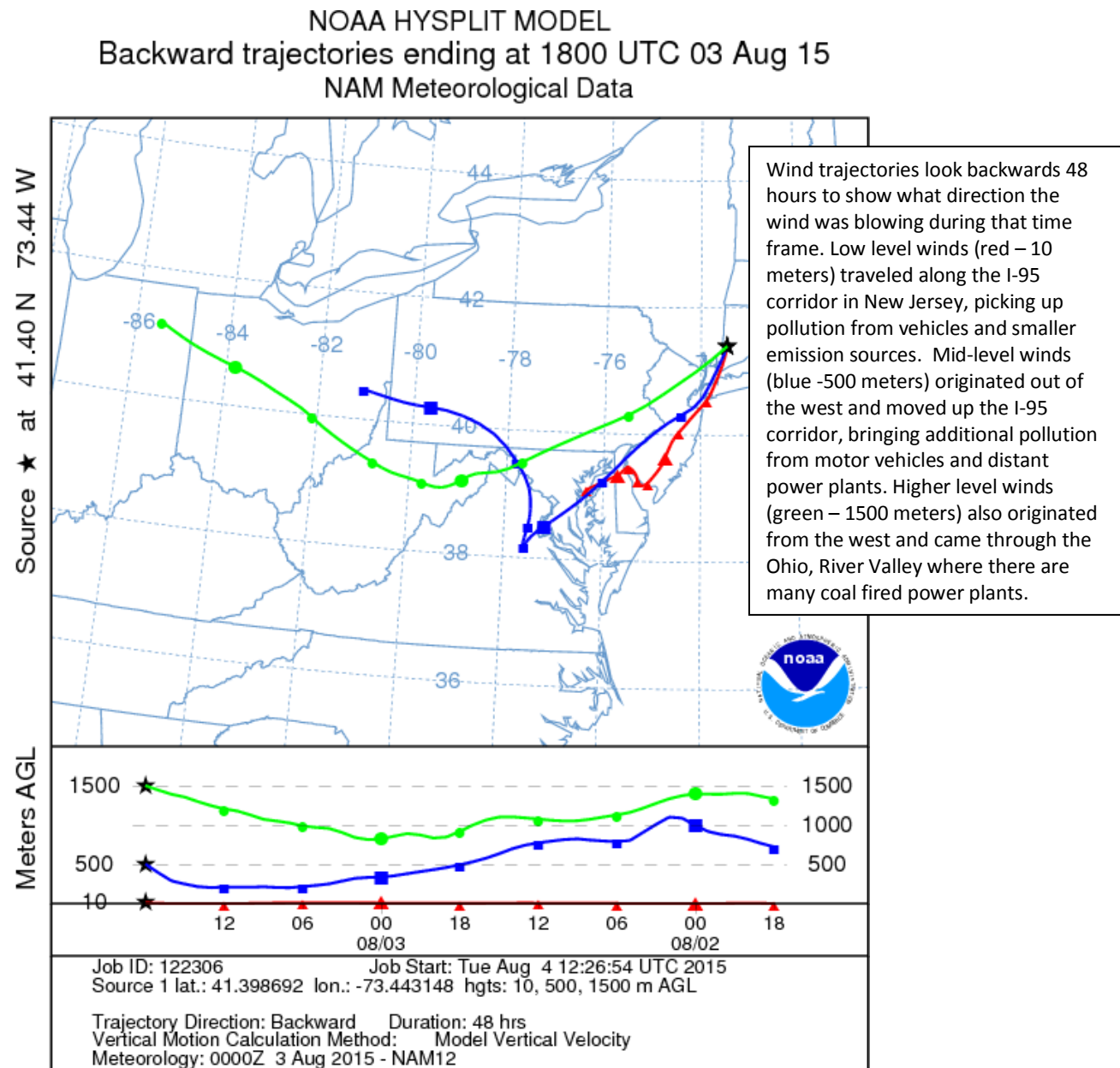
#### **Weather**

Meteorological data from Danbury Municipal Airport in Danbury, CT shows temperatures reached 86° F, while winds were light for the majority of the day and from the southwest. Skies were sunny. Sufficient sunlight, combined with warmer temperatures and light 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 3. Figure 2 illustrates that low level winds (red line) carried pollutants up the I-95 Corridor through New Jersey and New York City, where there are significant amounts of air contaminant emissions from cars, trucks, and industry. Mid-level winds (blue line) followed a similar path along the I-95 corridor but originated out of the west, where there are many coal fired power plants. Higher level winds (green line) also came from the west and traveled across the Ohio River Valley, picking up additional pollution from power plants. The combination of these winds caused air pollution from both mobile sources and power plants to be transported into the area of Connecticut that experienced high ozone on August 3.

**Figure 2. 48-hour Back Trajectories for August 3, 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.