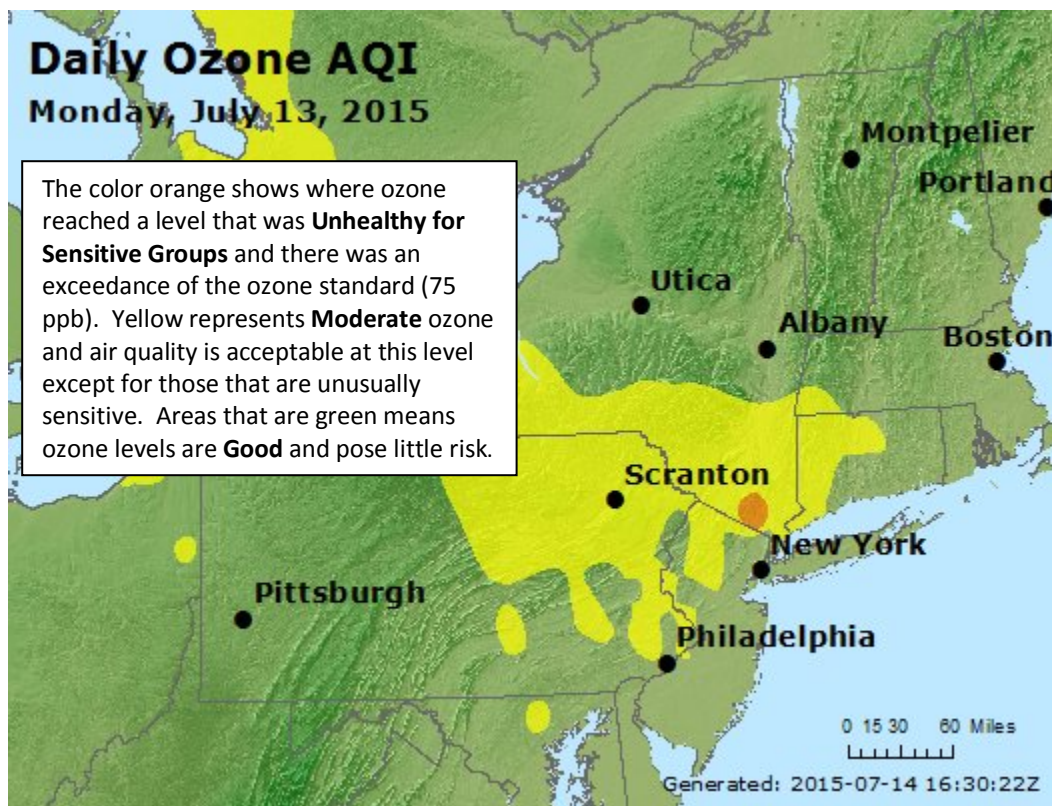


Ozone National Ambient Air Quality Standard Health Exceedance on July 13, 2015

Exceedances Locations and Levels

On Monday, July 13, 2015, an exceedance of the 8-hour average 75 ppb NAAQS for ozone was recorded at one (1) New York station: Rockland City with a concentration of 79 ppb. The highest 1-hour average ozone concentration recorded on July 13, 2015 was 95 ppb also at Rockland County, which is below the 1-hour NAAQS of 120 ppb. The Rockland City, NY 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 13.

Figure 1. Ozone Air Quality Index for July 13, 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>

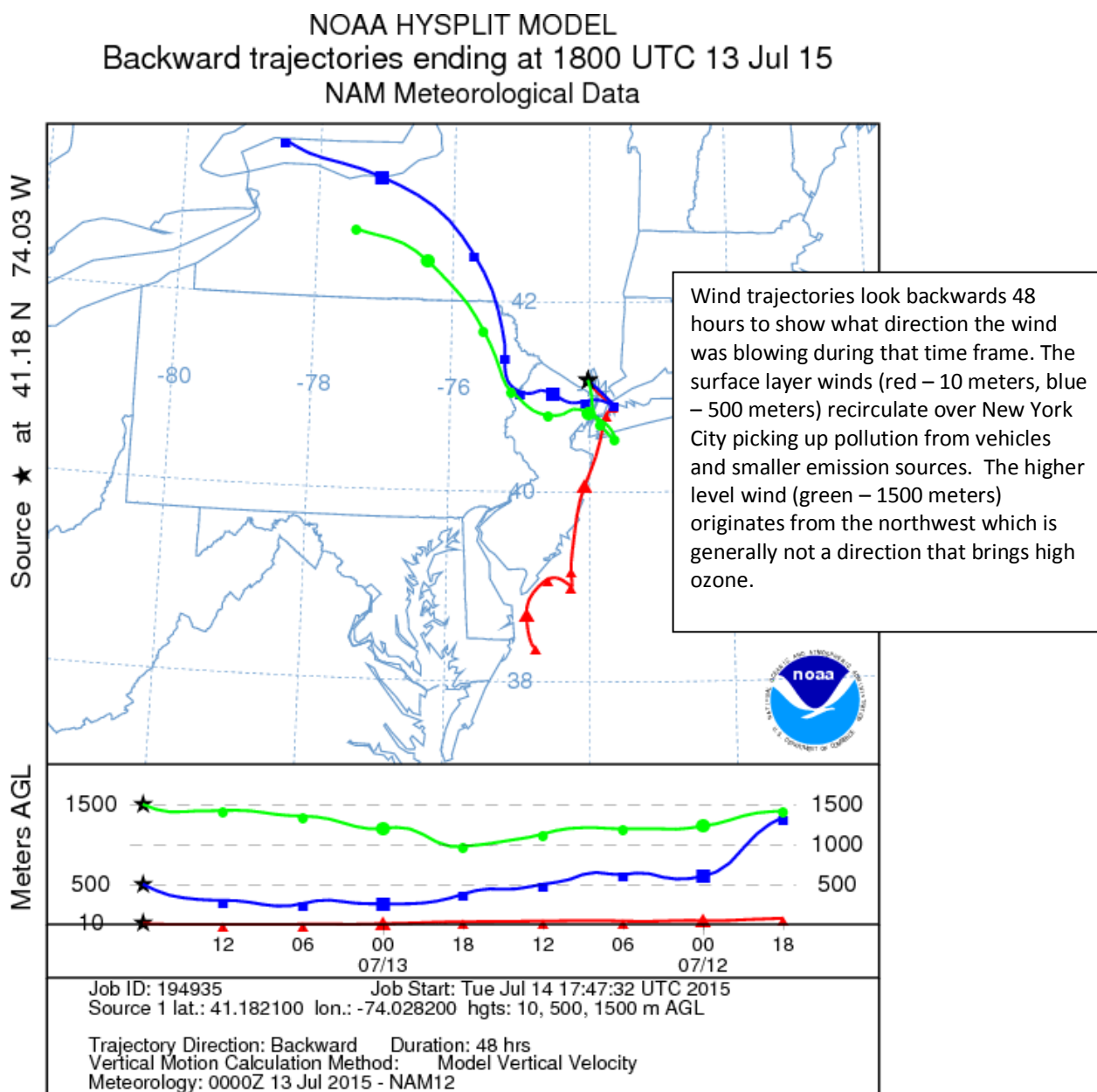
Weather

Meteorological data from Rockland Community College shows temperatures reached 87° F, while winds were very light and from the southeast with an average wind speed of 1 mph. Skies were partly cloudy over New York, but there was enough sunshine to promote ozone formation. Sufficient sunlight, combined with warmer temperatures 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 13. Figure 2 shows that low and mid-level winds (red and blue lines) went across and recirculated over the NYC metropolitan area, where there are significant amounts of air contaminant emissions from cars, trucks and industry. Higher level winds (green line) show that winds came from the north northwest across upstate New York and northeast Pennsylvania, which is not associated with high ozone levels. The lower level recirculating winds may have caused air pollution from mobile sources and New York City peak electricity generating turbines and diesel engines to be transported into the area of southern New York that experienced high ozone on July 13.

Figure 2. 48-hour Back Trajectories for July 13, 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.