Washington, DC Nonattainment Area Ozone Season 2003

by
Sunil Kumar

April 5, 2004

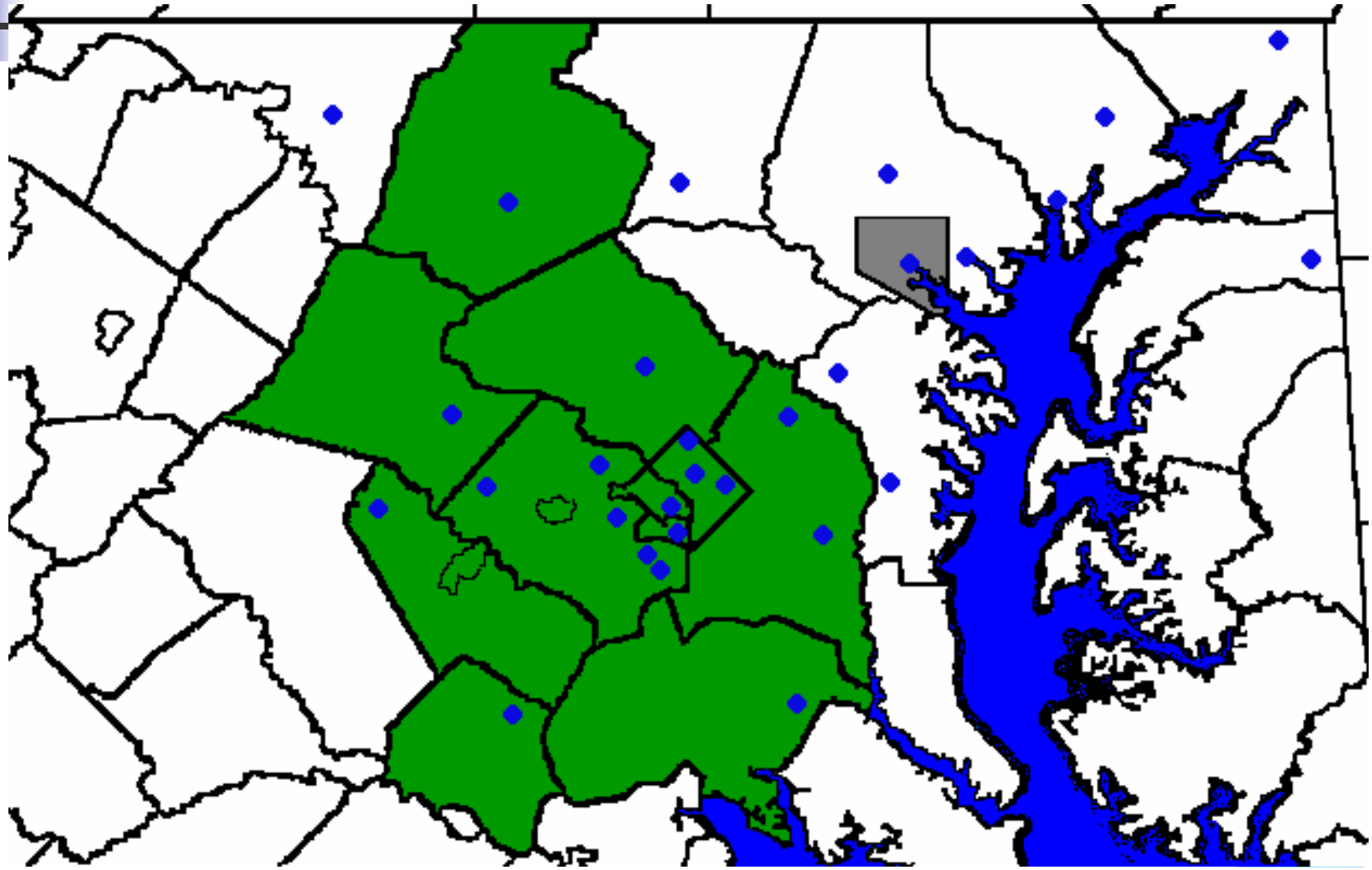
Metropolitan Washington Council of Governments

Ozone Forecasting Summary

- Ozone forecasting began on May 1, 2003 and concluded on September 15, 2003

- The Washington, DC area had 3 1-hour and 7 8-hour ozone exceedances.

2003 Ozone Monitoring Network



Ozone Ranges

EPA's AQI 8-hr Ozone Range	Forecasting and Reporting 1-hr Ozone Range	AQI Color	AQI Range	Health Descriptor
0-64 ppb	0-79 ppb	Green	1-50	Good
65-84 ppb	80-104 ppb	Yellow	51-100	Moderate
85-104 ppb	105-124 ppb	Orange	101-150	Unhealthy for Sensitive Groups
105-124 ppb	125-204 ppb	Red	151-200	Unhealthy
>124 ppb	>204 ppb	Purple	201-300	Very Unhealthy

Ozone Reporting

AQI Color	Description
Red	Unhealthy
Orange	Unhealthy for Sensitive Groups
Yellow	Moderate
Green	Good

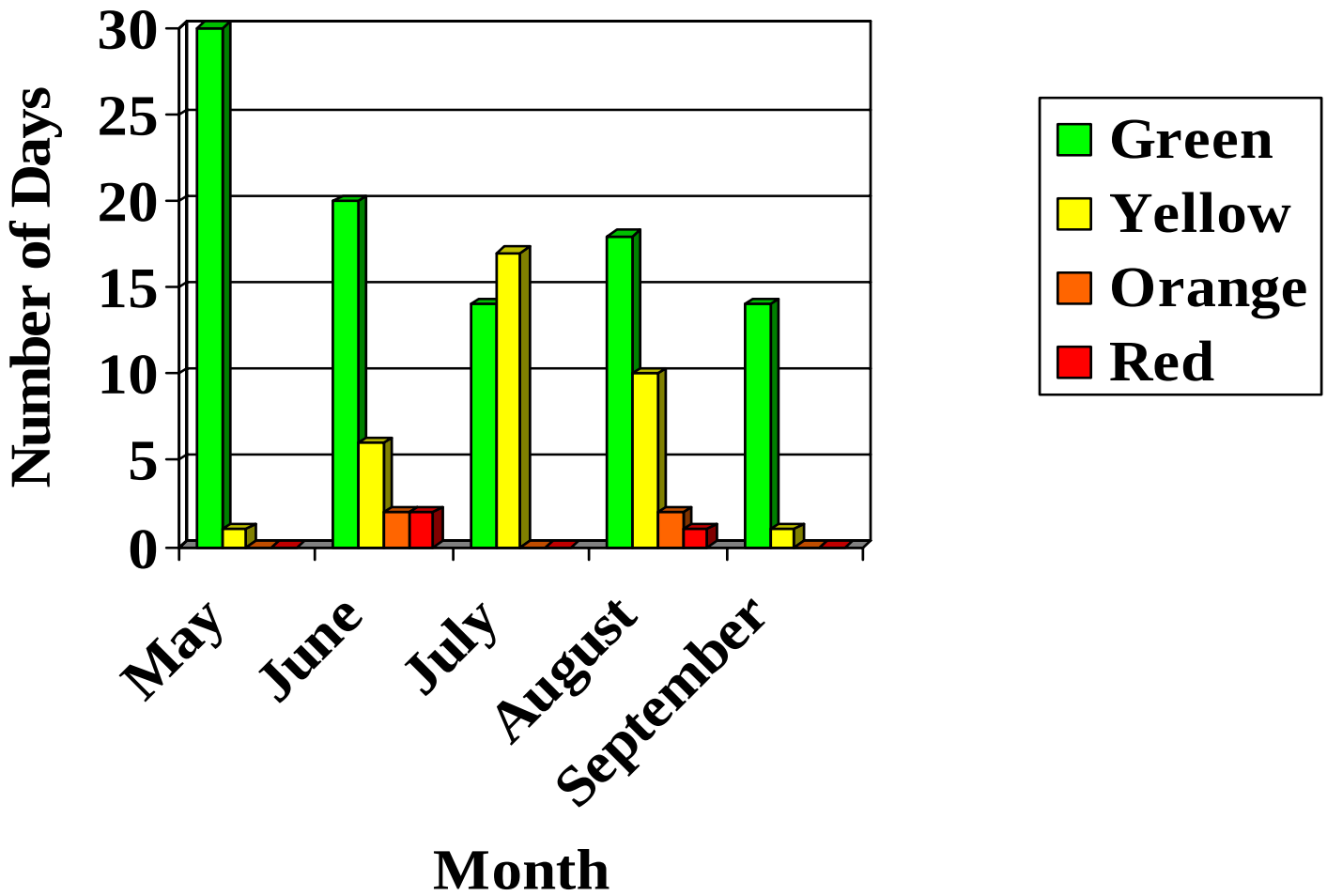
Keeping the Public Informed

- Forecast faxes & emails
- Air-watch web page – real time map
- COG web page – Ozone forecast
- EPA's AirNow web site
- USA Today newspaper
- The Weather Channel

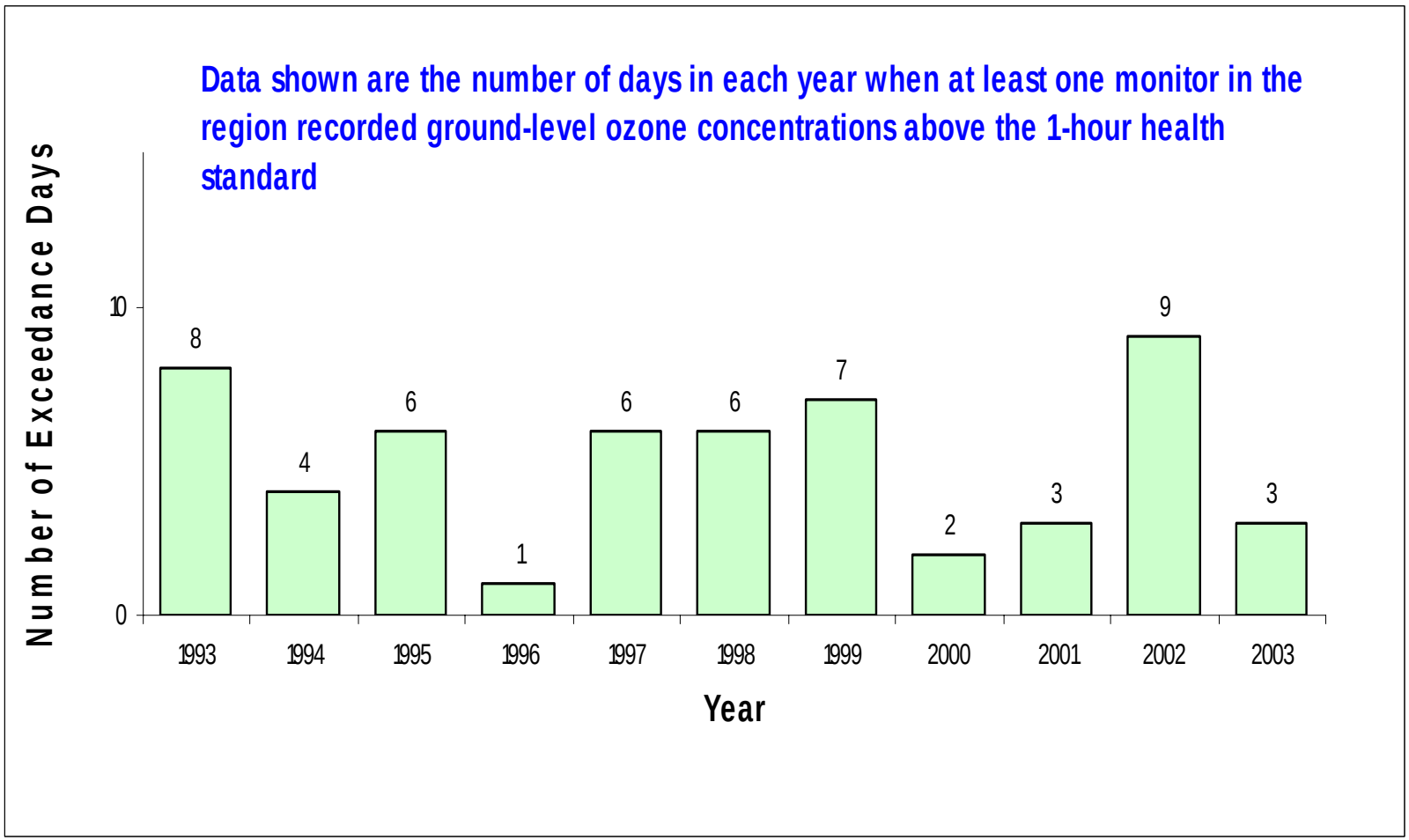
Ozone Season Results (May 1 - September 15, 2003)

	Green	Yellow	Orange	Red
May	30	1	0	0
June	20	6	2	2
July	14	17	0	0
August	18	10	2	1
September	14	1	0	0
Total	96	35	4	3

Ozone Season Results (May 1 - September 15, 2003)



Maryland 1-hr Ozone Exceedance Days By Year (1993-2003)



2003 Forecasted and Actual Observation For Code Red

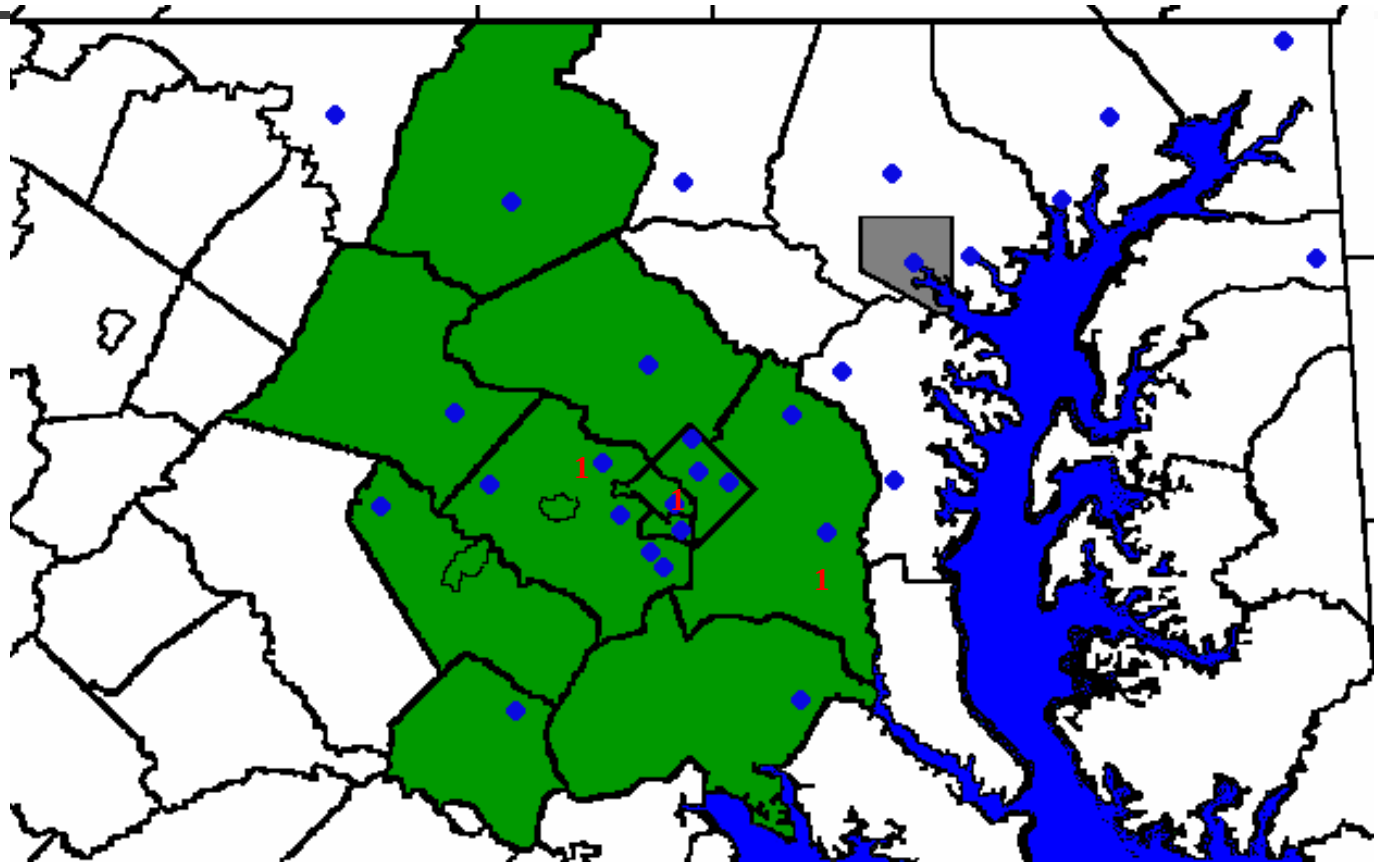
- **June 25th**
  - **Forecast:**
    - **Red (132 ppb)**
  - **Observation:**
    - **Red (141 ppb)**
- **June 26th**
  - **Forecast:**
    - **Red (138 ppb)**
  - **Observation:**
    - **Red (137 ppb)**
- **August 14th**
  - **Forecast:**
    - **Yellow (99 ppb)**
  - **Observation:**
    - **Red (127 ppb)**

1-Hr Ozone Highlights

- Number of ozone exceedance days: 3

- Max concentration: 141 ppb @ Prince George Equestrian Center on June 26, 2003

1-Hour Ozone Exceedance Days by Monitor



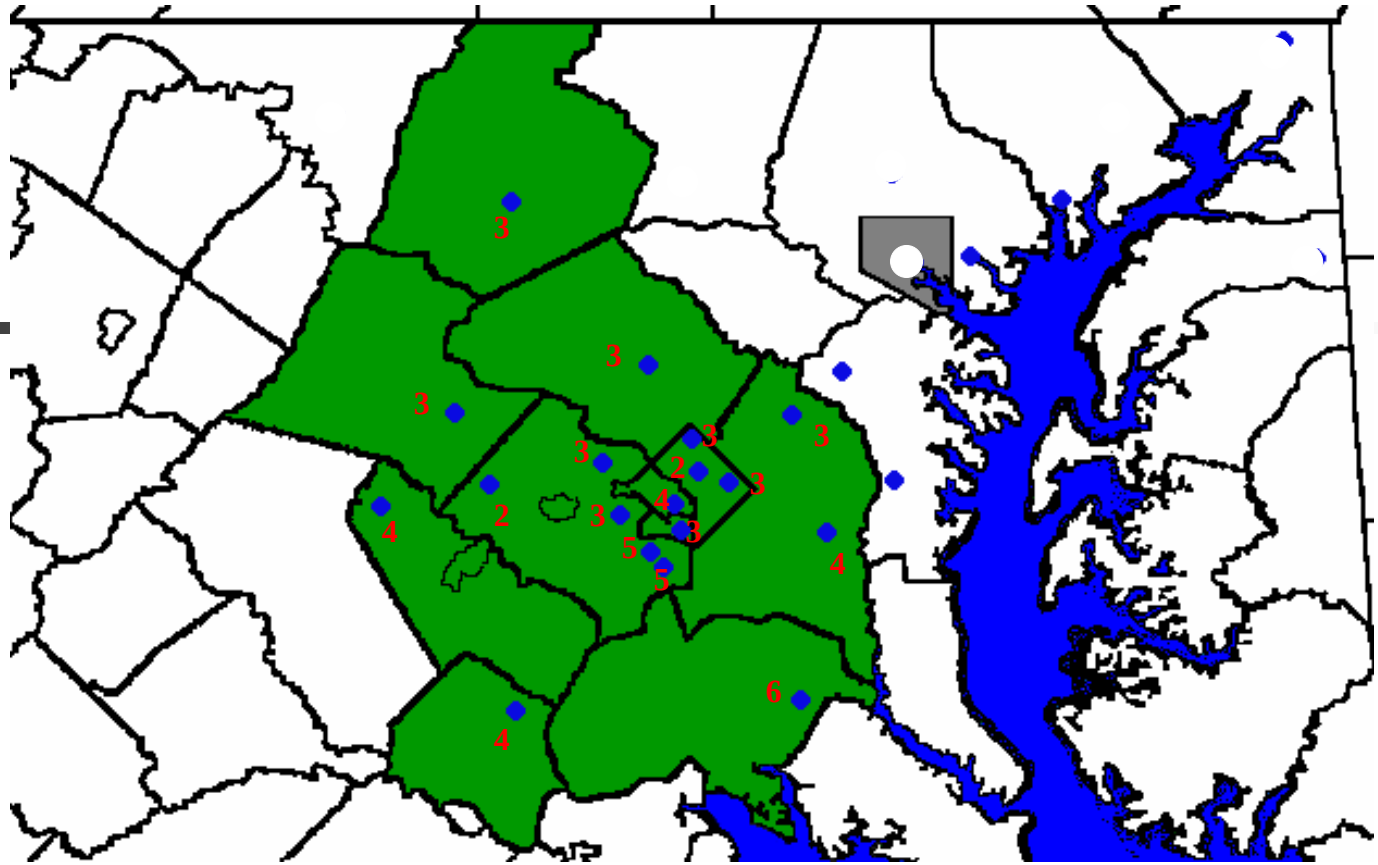
Number of days: 3 days

8-Hr Ozone Highlights

- Number of ozone exceedance days: 7

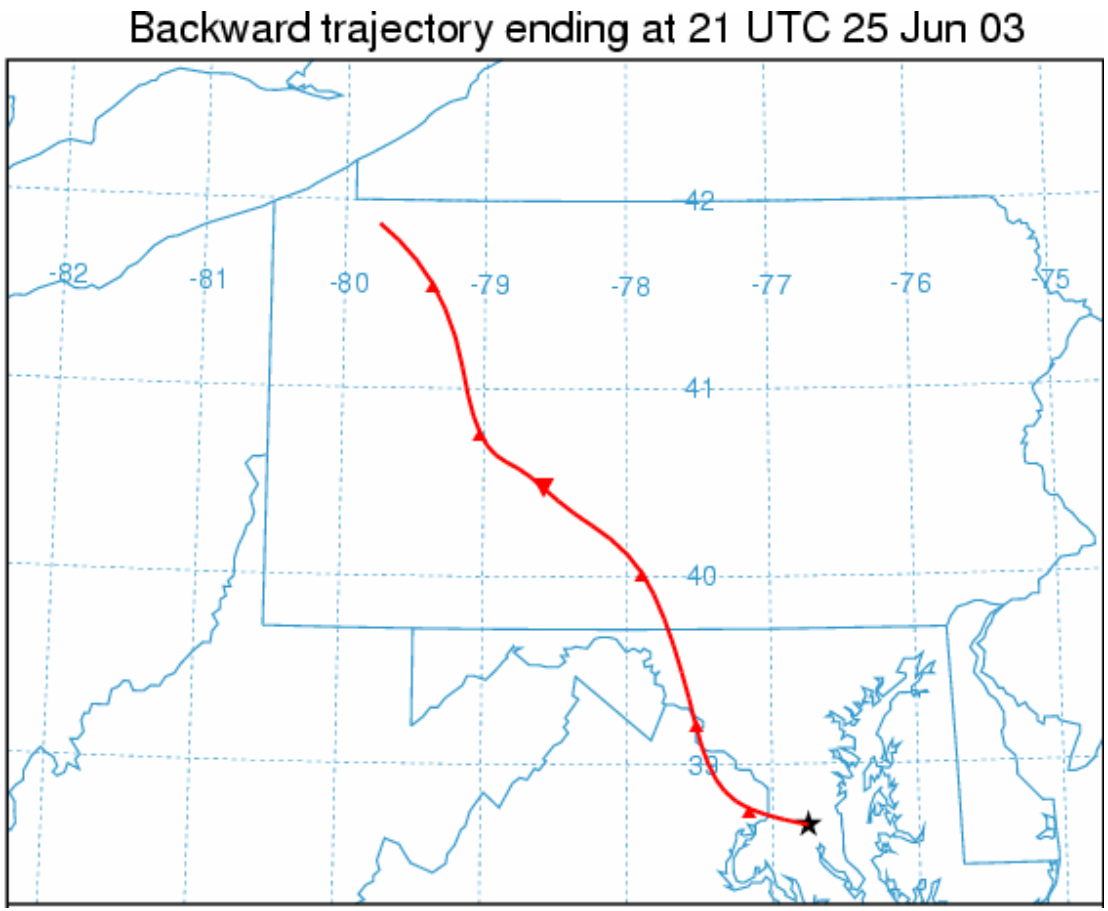
- Max concentration: 126 ppb at the Prince George Equestrian Center monitor on June 26, 2003

8-Hour Ozone Exceedance Days by Monitor

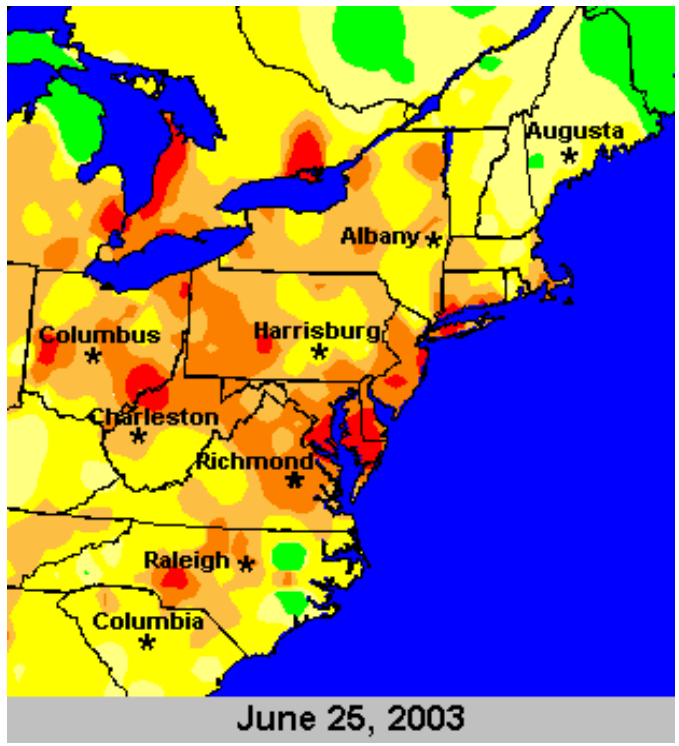


Number of days: 7 Days

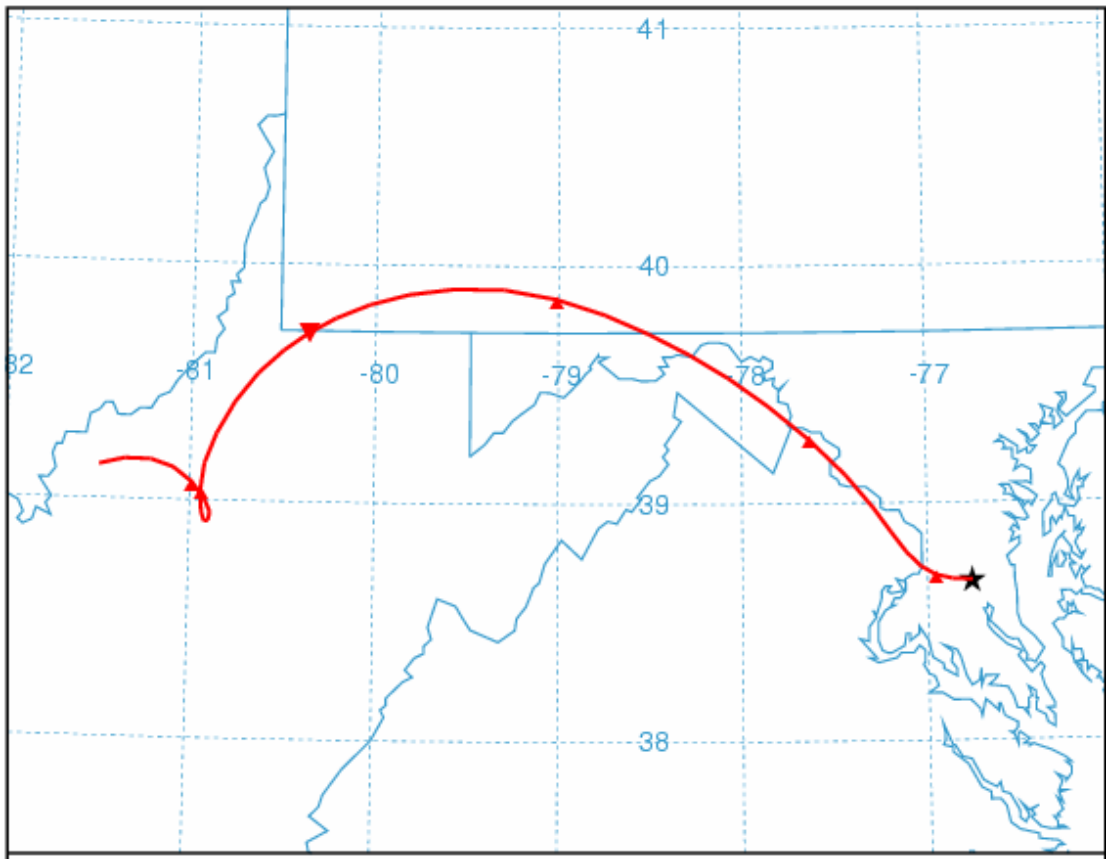
June 25th Highlights



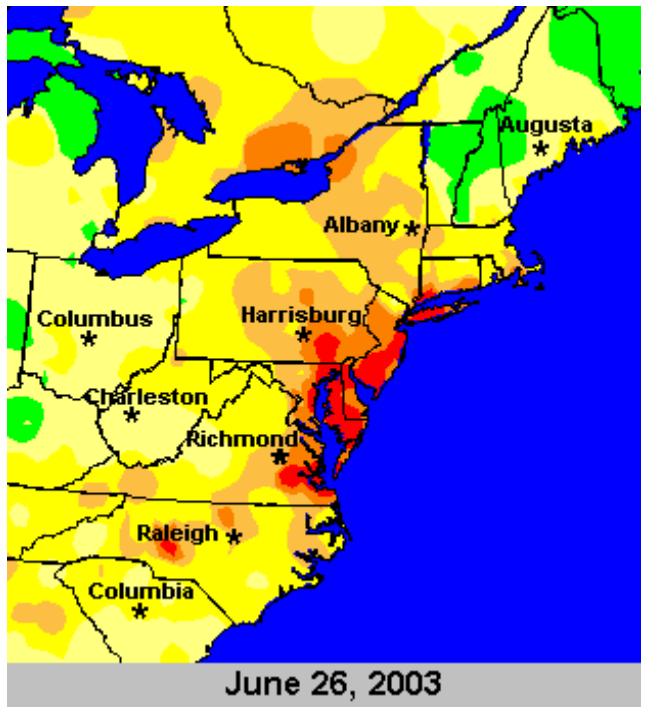
1-hr ozone map



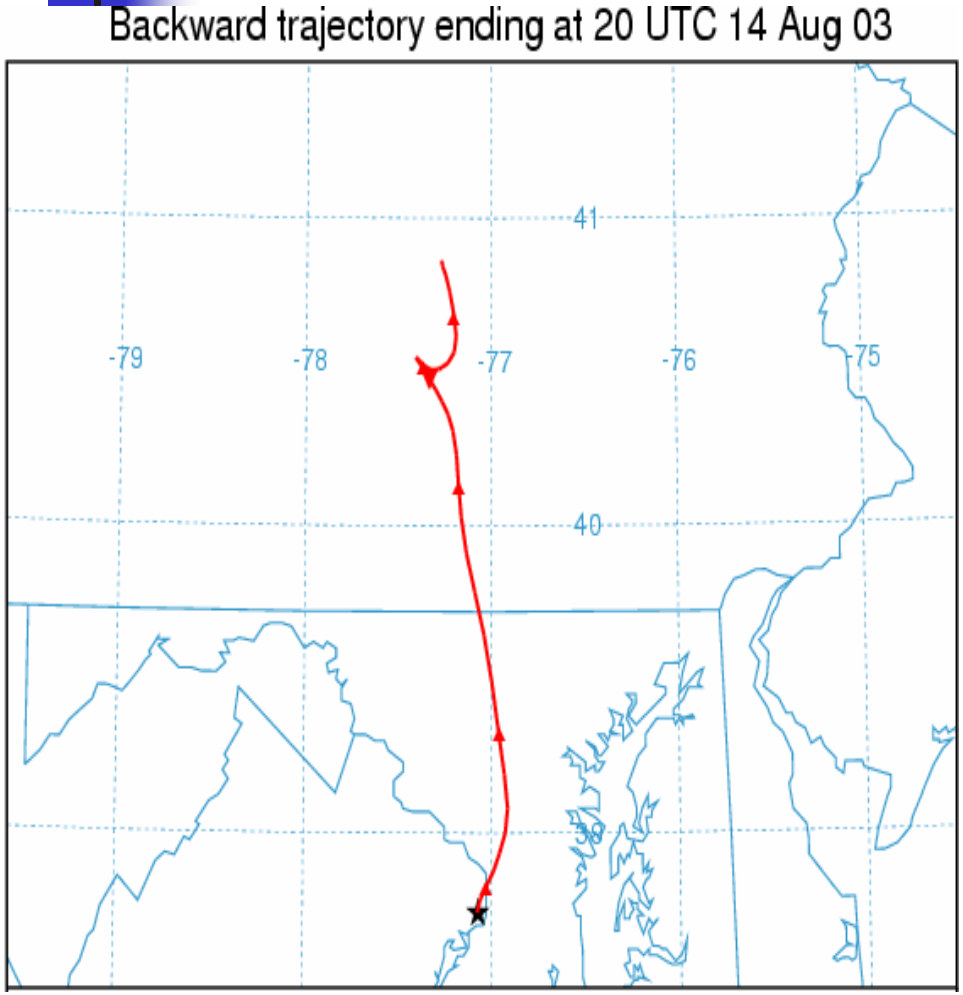
June 26th Highlights



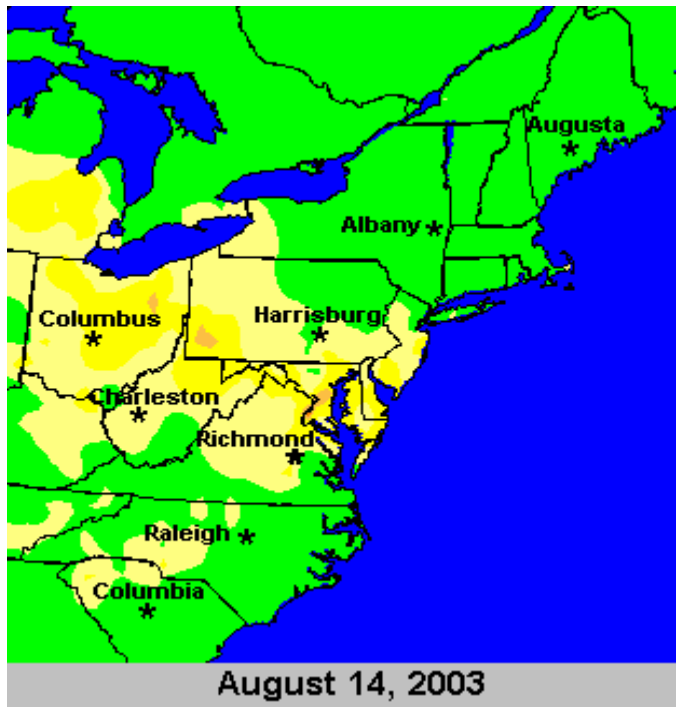
1-hr ozone map



August 14th Highlights



1-hr ozone map



Episode days (June 25-26 & August 14)

Winds came from Western Pennsylvania and Ohio river valley during June 25-26 and from Central Pennsylvania on August 14, where regional ozone loads were very high during these episode days.

- Formation of high ozone levels locally were favored by high temperature, low wind speed, and low mixing of pollutants during these three days.