



FAA Contract Weather Observation (CWO) Program

- Provide hourly weather observations (METARs) and special observations (SPECIs) when conditions warrant
- Transmit obs through local- and long-line dissemination through the Automated Surface Observing System (ASOS)
- FAA is responsible for Quality Assurance of all obs; NWS handles maintenance of ASOS equipment
- I work at FAA CWO site in Charleston (CHS), SC

FAA CWO CHS

My History in CHS

- Site was commissioned ASOS on 1 Oct 01.
- Worked full-time Monday through Friday 4pm-12am
- Promoted to Supervisor in March 2002
- Worked Monday through Friday from 8am-4pm
- Change in contractor on 1 Jan 08
- Relinquished supervisor position; went down to part-time hours on some weekends
- Accepted state gov't job at SC DHEC – started Feb 2008

FAA CWO Facts & Figures

- There are 119 manned ASOS sites nationwide
- Nine (9) CWO contractors staff these sites
- FAA doled out almost \$147 million in contracts to these CWO contractors
- Current contract period is slated to expire at the end of Fiscal Year 2012
- Subject to change due to the economy



FAA CWO Program

Some useful web sites:

http://www.nws.noaa.gov/ops2/Surface/asos_implementation.htm

<http://www.faa.gov/atpubs>

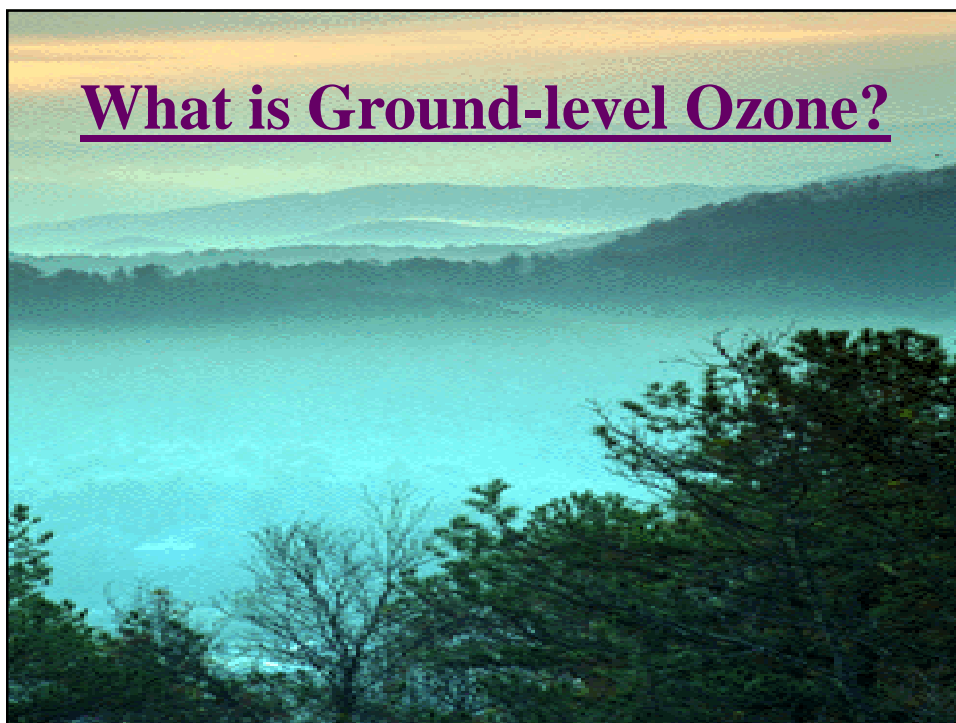
<http://adds.aviationweather.gov/metars/java/>

<http://www.rap.ucar.edu/weather/surface/>



Your Daily SC Ozone Forecast

**Department of Health and Environmental
Control (DHEC)
Bureau of Air Quality
Air Dispersion Modeling Section
Meteorology Support Group**



What is Ground-level Ozone?

Ozone in the Atmosphere

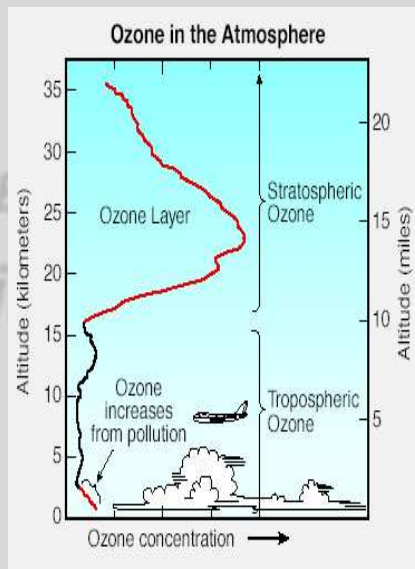
■ "Ozone Layer"

- Stratospheric ozone.
- Formed by O_2 and sunlight
- Thin & transparent
- Protects life from harmful UV rays.

■ "Ground-level Ozone"

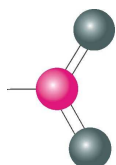
- Tropospheric ozone.
- Formed primarily from man-made emissions & sunlight
- Primary component in photochemical smog
- Harmful to life

■ "Good Up High, Bad Nearby."

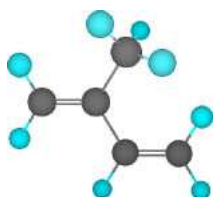


Formation of Ground-level Ozone

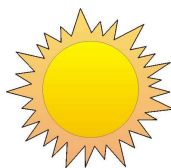
Oxides of Nitrogen (NO_x)



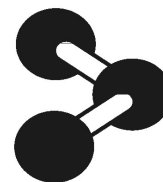
- AND -



Volatile Organic
Compounds (VOCs)



Strong Spring or Summer Sun
(with low RH & light winds)

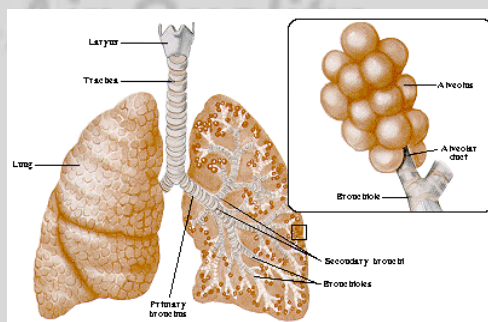


Ozone (O₃)



Health Risks Associated With Ground-level Ozone

- **Inflames lung & respiratory tissues.**
- **Impairs the body's immune system.**
- **Irritates the eyes.**



Why do we forecast Ground-level Ozone ?

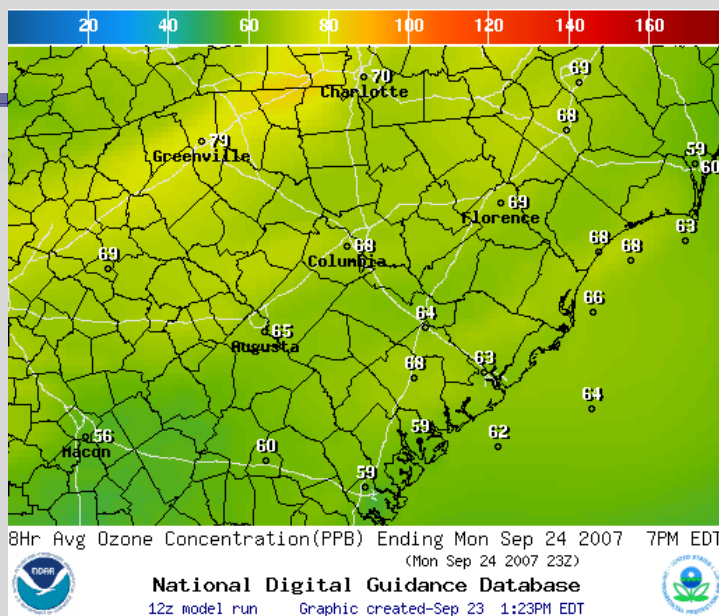
- 1) **PROTECT PUBLIC HEALTH**
 - High concentrations of ground-level ozone are hazardous to human health.
- 2) **Possible attainment issues**
 - EPA Standard: 8-hr average peak of 85 ppb (101 AQI) lowered to 75 ppb in March 2008.
- 3) **Because we can!**
 - Ozone patterns follow Weather patterns.

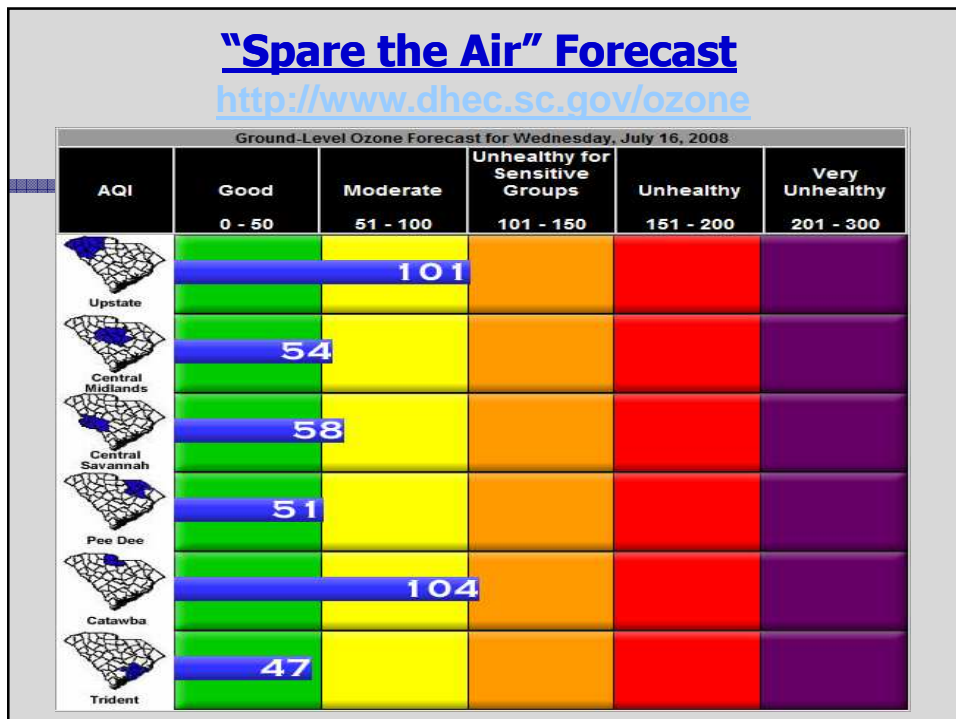
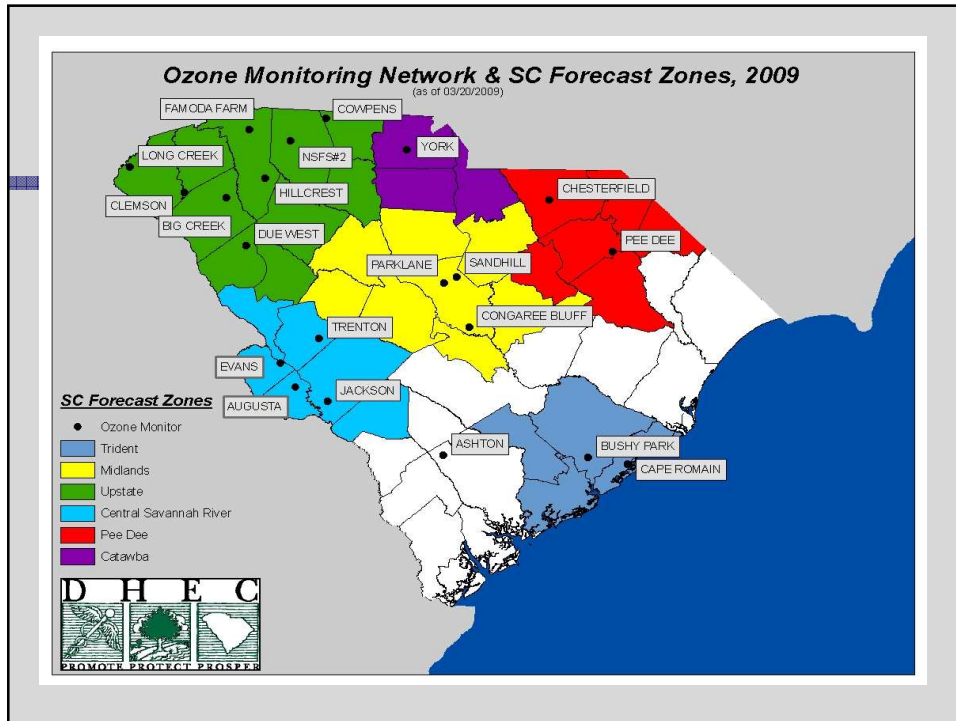


Actions to Reduce Ground-level Ozone

- **Carpool / Ride-share.**
- **Shop by phone, mail, or the Internet.**
- **Telecommute or work alternative schedule.**
- **Properly maintain your vehicle.**
- **Refuel after 6 pm, and don't top-off the tank.**
- **Mow lawn after 6 pm as well.**
- **Accelerate gradually.**

AIR QUALITY FORECAST GUIDANCE





Questions? Comments?

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Thank you for your time!