



# MEDIA ADVISORY

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## BALLOONS, A HELICOPTER & 200-FOOT TOWER HELP SCIENTISTS GATHER DATA FOR INTENSIVE STUDY OF OZONE AIR POLLUTION IN ATLANTA

Atmospheric scientists from across the United States will be in Atlanta this summer to take part in a comprehensive study aimed at examining the formation and causes of ground-level ozone air pollution. Information generated by the study will provide significant inputs for the evaluation of future ozone control strategies for Atlanta and other urban areas.

Known as the Atlanta Intensive Study, the research effort is part of the Southern Oxidants Study (SOS), a multi-year effort being conducted by an alliance of state and federal agencies, universities and industries which together hope to develop a better understanding of ozone pollution in the South.

The Atlanta Intensive Study will gather data from 14 air quality sampling sites scattered around the metropolitan area, including a 200-foot tower built at a "Supersite" on the Georgia Institute of Technology campus and a 150-foot tower at the Fernbank Science Center.

Tethered balloons, radiosondes, a helicopter, a LIDAR station and other equipment will be used to make as many as one million measurements during the six and one-half weeks of intense study beginning in mid-July. An additional 20 measuring sites will gather information on air quality outside the immediate Atlanta metropolitan area and in adjacent states.

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U.S. Senator Wyche Fowler will help kick off the Atlanta Intensive at a press briefing scheduled for Tuesday, **July 21** at the Georgia Tech measuring site located off Ferst Drive near the Woodruff Manufacturing Research Center. The briefing will begin at 9:45 a.m., and conclude with the launching of a balloon equipped to measure ozone levels. Greer C. Tidwell, EPA Regional Administrator, also will participate in the briefing and comment on EPA's supportive role.

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Ground-level ozone is a pollutant formed when two types of chemicals -- hydrocarbons known as volatile organic compounds (VOCs) and nitrogen oxides (NOx) -- react in the presence of sunlight. Both types of compounds are emitted by manmade sources such as automobiles, factories and stationary facilities, and by natural sources such as trees and vegetative cover, soils and lightning. (Ground-level ozone should not be confused with high-altitude stratospheric ozone, which protects life from the harmful effects of the sun's ultraviolet rays.)

Past ozone strategies have focused on controlling the emission of volatile organic compounds. Because of strenuous efforts, ozone levels have not increased, despite population growth. However, ozone levels still exceed federal standards. Therefore, some scientists believe a new approach to emission management strategies soon may be needed. To assess what those effective strategies may be, research goals for the Atlanta Intensive include:

- \* Determining the relative importance of manmade and natural emissions in the formation of ozone.

- \* Determining the relative importance of hydrocarbons versus nitrogen oxides in the formation of ozone.

- \* Identifying the hydrocarbon emissions that are most important in the formation of ozone.

- \* Understanding how the movement of air masses affects ozone formation.

- \* Determining how atmospheric conditions affect the formation of ozone, and

- \* Evaluating and improving the accuracy of mathematical models used to predict ozone formation and design ozone control strategies.

Preliminary findings may be available toward the end of 1992, though complete evaluation of data from the Atlanta Intensive will require additional time.

Atlanta is the first city selected for an intensive air quality analysis through the Southern Oxidants Study. The city was chosen for a number of reasons: (1) extensive data already exist about atmospheric chemistry in Atlanta, (2) the city does not now comply with federal ozone standards which must be met by 1999, (3) extensive forests surrounding the city allow a study of how natural emissions affect the ozone formation process, (4) Atlanta is not subject to pollution from other cities, and (5) the city experiences significant periods of stagnant air in the summer months that are conducive to the build-up of ozone concentrations.

Over the past 10 years, the Atlanta area experienced an average of 12 days per summer when the measured ozone levels exceeded federal air quality standards. The U.S. Environmental Protection Agency (EPA) classifies the ozone problem in the 13-counties around Atlanta as "serious," midway on a five-step scale it uses to rank areas which do not meet standards.

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The Atlanta noncompliance area includes Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding and Rockdale counties.

Scientists participating in the Atlanta Intensive are from a number of organizations, including the Georgia Institute of Technology, the University of Alabama-Huntsville, the University of Northern Alabama, Georgia Environmental Protection Division, the University of Michigan, North Carolina State University, Washington State University, the University of Miami, The Southern Company, the Georgia Power Company, The Fleming Group, DGA, Inc., Environmental Science and Engineering, Inc., the U.S. Environmental Protection Agency, the National Center for Atmospheric Research, the U.S. Department of Energy, the Tennessee Valley Authority, the National Oceanic and Atmospheric Administration and the U.S. Geological Survey.

Major sponsors of the Southern Oxidants Study include the U.S. Environmental Protection Agency, the Electric Power Research Institute, Southeastern State Air Pollution Control Agencies, the National Oceanic and Atmospheric Administration, the Georgia Institute of Technology, the Tennessee Valley Authority, The Southern Company, Duke Power Company, the U.S. Department of Energy, and the Coordinating Research Council, Inc.

The University Corporation for Atmospheric Research (UCAR) operates the SOS Management Center located on the Georgia Tech campus.

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