

## LINKING REGIONAL AIR QUALITY TO INTERCONTINENTAL TRANSPORT - THE ICARTT STUDY

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There is a growing awareness of the importance of intercontinental transport on the global background of ozone and fine particles. The lowering of regulatory thresholds for these pollutants in the U.S. has further increased the interest in understanding the impact of intercontinental transport on regional air quality. During the last decade the U.S. National Oceanic and Atmospheric Administration (NOAA) has conducted a series of intensive field campaigns to separately identify the factors responsible for poor air quality on a regional basis and to examine the role of intercontinental transport on global and regional air quality. In the summer of 2004 NOAA will join several groups in North America and Europe that had independently developed plans for field experiments aimed at developing a better understanding of the factors that shape air quality in their respective countries and the remote regions of the North Atlantic. While each of these programs has regionally focused goals and deployments they share many of the same goals and objectives and the proposed study areas overlap significantly. ICARTT (International Consortium for Atmospheric Research on Transport and Transformation) was formed to take advantage of this synergy by planning and executing a series of coordinated experiments to study the emissions of aerosol and ozone precursors their chemical transformations and removal during transport to and over the North Atlantic. The capabilities represented by the consortium (e.g., an extensive surface network, 12 instrumented aircraft, and a research vessel) will allow an unprecedented characterization of the key atmospheric processes. The combined research conducted in the programs that make up ICARTT will focus in three main areas: regional air quality, intercontinental transport, and radiative balance in the atmosphere. The presentation will focus on policy and scientific perspectives that led NOAA to link its research efforts on regional air quality and intercontinental transport. He will describe the goals and approaches of the ICARTT program, with a very early look at results from the NOAA part of the study.