



The INTEX-B/MILAGRO North American Field Experiment 2006

GOAL: To understand the impacts of intercontinental pollution transport on air quality and climate from local to global scales

PARTNERS: United States (NASA, NSF, DOE), Mexico, Canada, and Germany

MISSION: INTEX-B/Milagro was a highly successful international campaign led by scientists from ARC (H. Singh, Lead Mission Scientist) with over 300 participants. The campaign was performed in the spring of 2006 in two parts: the first part (March) investigated pollution export from Mexico City and the second part (April-May) focused on the pollution export from Asia to North America. Multiple satellites, instrumented aircraft, ground stations, and models were utilized to achieve mission objectives.



Aircraft Bases and DC-8 Flight Tracks



INTEX-B Satellite and Aircraft Platforms

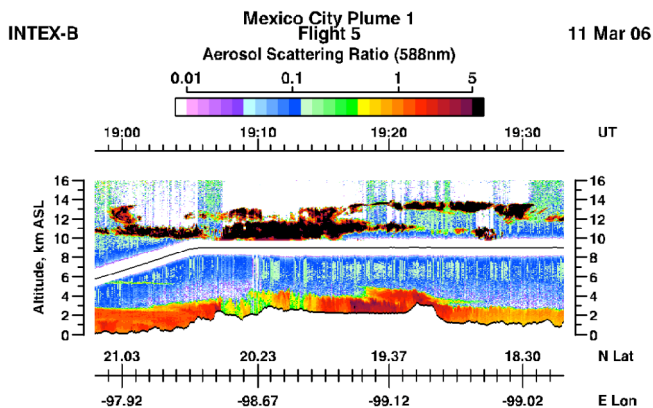
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SCIENTIFIC OBJECTIVES:

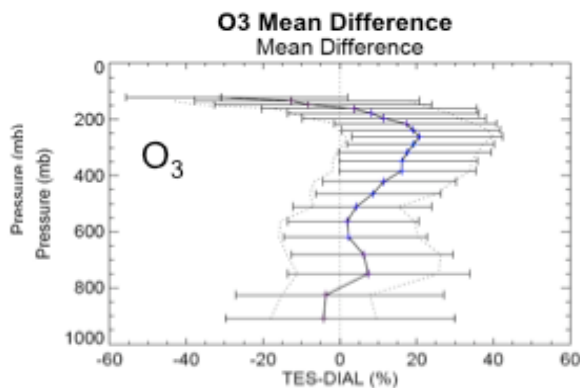
- Continental Outflow: Extent & persistence of the outflow of pollution from Mexico
- Transpacific Pollution: Transport and evolution of Asian pollution & implications for air quality & climate
- Air Quality: Relating atmospheric composition to sources & sinks & testing chemical transport models
- Aerosol Radiative Forcing: Characterizing effects of aerosols on solar radiation
- Satellite Validation: Validating space-borne observations of tropospheric composition

PRESENT STATUS:

INTEX-B/Milagro has provided a comprehensive and unique data set for investigating the transformation of gases and aerosols during long-range transport, for the radiation balance of the troposphere, and for validating a variety of satellite observations as well as models of chemistry and transport. These data are presently being analyzed and will be published in a series of papers in peer reviewed journals.



Small Particle Pollution Over Mexico City



Ozone Comparisons from Satellite & DC-8

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