

## **IONS-06 (INTEX Ozonesonde Network Study) Ozone Profiles over Mexico City and Houston in March 2006: Mixture of Pollution and UT/LS Waves**

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Ozone profile data from soundings enhance interpretation of atmospheric chemistry and dynamics with consistent sampling not available from satellite and aircraft. Soundings were taken during INTEX-NA (Intercontinental Transport Experiment - North America, 2004) and the 2006 Milagro/MIRAGE-Mex (Megacity Impacts of Regional and Global Environments)/INTEX-B. IONS (INTEX Ozonesonde Network Study) is a network for studying the vertical structure and long-range transport of ozone and tropospheric water vapor during the INTEX experiments. From 5 to 20 March 2006, during IONS-06, ozone soundings were made over the Milagro T1 site (Tecamac, 19N, 99W), at the urban-rural interface, about 80 km NE of Mexico City. Simultaneous soundings were made over Houston, TX (30N, 95W), approximately 1000 km to the northeast. Day-to-day variations in tropospheric ozone at T1 are explained by regional meteorology and emissions. Pollution accumulation at T1 was most noticeable during a stagnation period early in March, with winds from Mexico City. Downwind of T1, Houston was affected on 10 March 2006. Ozone variations throughout the troposphere and lower stratosphere over T1 were associated with equatorial Gravity waves. IONS-06 images for Mexico City/Tecamac, Houston, and those for other March 2006 data are viewable at: <http://croc.gsfc.nasa.gov/intexb/ions06>.