Airborne Spectral Measurements of Surface-Atmosphere Anisotropy over Different Surfaces in Mexico

Charles Gatebe, Michael King, Tom Arnold, Juliao Cumbane, and Gala Wind

Charles Gatebe, gatebe@climate.gsfc.nasa.gov

During INTEX-B/MILAGRO (Intercontinental Chemical Transport Experiment—Phase B/ Megacity Initiative: Local and Global Research Observations) the CAR (Cloud Absorption Radiometer, a NASA Goddard Space Flight Center instrument) flew aboard the Jetstream-31 and measured spectral and angular distribution of scattered light by clouds and aerosols, and provided bidirectional reflectance of various surfaces, and imagery of cloud and Earth surface features. From these measurements, we have selected one case over Mexico City for determination of aerosol and surface bidirectional distribution function (BRDF), and spectral albedo. We have also analyzed measurements of an aircraft contrail to demonstrate other potential uses of our data in climate change studies.