

Analysis of satellite data in support of MIRAGE-Mex

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Satellite data sets will be analyzed in support of the interpretation of MIRAGE-Mex field campaign observations of NO₂ and aerosol. A primary goal is to quantify geographical distributions of aerosol, NO₂, and cloud reflectivity over and downwind of Mexico City on a daily basis, using OMI aerosol and NO₂ data, and MODIS radiance data, in 2005 and 2006. The OMI data will be used to determine the spatial extent and temporal (i.e. seasonal) characteristics of the Mexico City plume. MODIS radiances will be used to determine possible correlations between aerosol and cloud reflectivity enhancements downwind of Mexico City (i.e. the “Twomey effect”).