

BAY REGIONAL ATMOSPHERIC CHEMISTRY EXPERIMENT (BRACE)

Moving Science into Action

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BRACE Goals

Improve estimates of the atmospheric nitrogen deposition to Tampa Bay · Apportionment of atmospheric nitrogen, mercury, and related species between local, regional and remote emission sources · Assessment of the Tampa Bay air quality before and after the TECO Gannon Station re-powering from coal to natural gas

BRACE Activities in May & October 2002

Continuous sampling of more than 100 air pollutants including mercury species · Event precipitation collection for mercury & trace elements · Aircraft flights to characterize urban air pollution · Direct measurements of nitrogen deposition · Hourly vertical profiles of temperature and winds · Sensing of atmospheric turbulence over Tampa Bay · Real-time aerosol characterization

Status of BRACE

Data and model evaluation is ongoing · EPA NERL researchers observed significant enhancements of mercury, SO₂, NO_x, NO and aerosols from the Gannon Power Station · Preliminary results will be presented at AWMA conference in San Diego (Fall 2003)



BRACE Participants

Florida DEP · US EPA National Exposure Research Laboratory · Argonne National Laboratory · Environmental Protection Commission of Hillsborough County · NOAA Air Research Laboratory · Pinellas County DEM · Tampa Bay Estuary Program · Texas Tech University · University of Maryland · University of Miami · University of Michigan · University of South Florida



BRACE Monitoring Sites

Five air quality monitoring sites and four meteorological sites were established across Pinellas and Hillsborough Counties. The "Tower Dairy" site shown in the photograph (left) is located approximately 5 km east of the TECO Gannon Station and was run by EPA NERL



PINELLAS COUNTY GOVERNMENT
ENVIRONMENTAL MANAGEMENT

