

# Inventory of Aerosol/Climate Research at NOAA

(December, 2001)

## NOAA Laboratories

- **CMDL - Monitoring and intensive field measurements of aerosols**

Time Series of Ground-Based Aerosol Optical Properties

- Baseline Observatories (Mauna Loa, Barrow, South Pole, Samoa)
- Project-funded Observatories (Bondville, IL (NOAA/OGP), Southern Great Plains Lamont, OK (DOE/ARM), Kosan, Korea (NOAA/OGP))

Airborne Measurements of Aerosol Properties (DOE/ARM)

- Southern Great Plains

Ground-Based Radiation Network

- Bermuda, Kwajalein, Boulder, Barrow, South Pole, Mauna Loa

- **PMEL – Field measurements of aerosols in marine environments**

Aerosol Characterization and Closure Studies

- Ship-Based Field Measurements of Aerosol Properties (ACE-1, ACE-2, Aerosols99, INDOEX, ACE-Asia)

Time Series of Ground-Based Aerosol Chemical Properties

- (Bondville, IL (NOAA/OAR), Southern Great Plains Lamont, OK (NOAA/OGP), Kosan, Korea (NOAA/OGP), Barrow, Poker Flat, Denali National Park, and Homer, Alaska (NOAA/ArcticProgram))

- **GFDL – Theoretical and model studies of the climatic impact of aerosols**

Modeling

- Physics, chemistry, and transport of atmospheric trace gases and aerosols
- Interactions of clouds, convection, radiation, and dynamics in climate

- **Aeronomy Lab – Field measurements in remote troposphere & urban environments**

Air quality-related studies of long-range transport (IGAC/ITCT)

- Development of airborne instrumentation
- Field campaigns focused on long-range transport processes

## NOAA Office of Global Programs

- **Aerosol-Climate Interactions Program**

Elucidation of the relationship between aerosol properties and climate forcing

- Field measurements focused on aerosol characterization and radiative forcing
- Development/enhancement of in-situ measurement methodologies