AIR MONITORING NETWORKS FOR CLIMATE FORCING, TRANSPORT, AND STRATOPHERIC OZONE

Network	Lead Federal Agency	Number of Sites	Initiated	Measurement Parameters	Location of Information and/or Data
Global Monitoring Division Baseline Observatories					
Manua Loa	NOAA	1	1957	CO2, CO, CH4, SO2, O3, SF6, N2O, H2, CFCs, HCFCs, HFC's, Aerosols, Solar Radiation, Surface Meteorology	http://www.cmdl.noaa.gov/obop/MLO/
Point Barrow	NOAA	1	1973	CO2, CO, CH4, SO2, O3, SF6, N2O, H2, CFCs, HCFCs, HFC's, Aerosols, Solar Radiation, Surface Meteorology	http://www.cmdl.noaa.gov/obop/BRW/
Samoa	NOAA	1	1974	CO2, CO, CH4, SO2, O3, SF6, N2O, H2, CFCs, HCFCs, HFC's, Aerosols, Solar Radiation, Surface Meteorology	http://www.cmdl.noaa.gov/obop/smo/
South Pole	NOAA	1	1957	CO2, CO, CH4, SO2, O3, SF6, N2O, H2, CFCs, HCFCs, HFC's, Aerosols, Solar Radiation, Surface Meteorology	http://www.cmdl.noaa.gov/obop/SPO/
Trinidad Head	NOAA	1	2002	CO2, CO, CH4, SO2, O3, SF6, N2O, H2, CFCs, HCFCs, HFC's, Aerosols, Solar Radiation, Surface Meteorology	http://www.cmdl.noaa.gov/obop/THD/
Global Monitoring Division -- Carbon Cycle Greenhouse Gases Group (CCGG)					
Observatory Measurements	NOAA	4	1957	See above baseline observatories	http://www.cmdl.noaa.gov/ccgg/insitu.html
Cooperative fixed sites	NOAA	62	1967	CO2, CH4, CO, H2, N2O, and SF6, stable isotopes of CO2 and CH4	http://www.cmdl.noaa.gov/ccgg/flask.html
Comercial Ships	?????	?????	?????		
Others					
Tall Tower Measurements	NOAA	3	1992	CO2, CO, CH4, H2, CFCs, methyl chloroform, carbon tetrachloride, chloroform, sulfur hexafluoride, perchloroethylene	http://www.cmdl.noaa.gov/ccgg/towers.html
Aircraft Measurements	NOAA	16 airport sites	1992	CO2, CH4, N2O, CO, H2, SF6	http://www.cmdl.noaa.gov/ccgg/aircraft.html
Networks for Halogenated Gases and Ozone	NOAA	Multiple platforms	1986	nitrous oxide (N2O), CFCs, HCFCs, HFCs, CH3Br, CH3Cl, CH3I), halons	http://www.cmdl.noaa.gov/hats/
Network for Aerosols	NOAA	Multiple platforms	mid-1970s	light absorption, total scattering and backscattering	http://www.cmdl.noaa.gov/aero/
North American Aircraft and Tall Tower Carbon Observing System	NOAA	10 Aircraft 3 tall towers	1992	CO, CO2, CH4	http://www.cmdl.noaa.gov/carbonamerica/
North American Carbon Program Atmospheric Observing System	Multiple participants	Multiple platforms	2001	CO, CO2, CH4	http://www.nacarbon.org/nacp/
Aeronet	NASA	14 network participants	1998	aerosol spectral optical depths, aerosol size distributions, and precipitable water	http://aeronet.gsfc.nasa.gov/index.html
University of Washington					
Cheeka Peak Observatory	None	1	1997	O3, CO, Aerosols, Solar Radiation, Surface Meteorology	http://research.uwb.edu/jaffegroup/modules/cpo_plot/
Mt. Bachelor Observatory	None	1	2004	O3, CO, NO/NO2, Aerosols, Hg, Surface Meteorology	http://research.uwb.edu/jaffegroup/modules/mbo_plot/

AIR MONITORING NETWORKS FOR CLIMATE FORCING, TRANSPORT, AND STRATOPHERIC OZONE (continued)					
International Aircraft Measurements					
MOZAIC (Measurement of ozone, water vapour, carbon monoxide and nitrogen oxides aboard Airbus in-service aircraft)	None	2500 Airbus international flights/year	1994	O3, H2O, CO, NOx	http://www.fz-juelich.de/icg/icg-ii/mozaic/home
NOXAR (Measurements of Nitrogen Oxides and Ozone Along Air Routes)	None	500 Swiss Air flights to U.S. and far east	1995 - 1996	O3, NO, NO2	http://www.iac.ethz.ch/en/research/chemie/tpeter/Noxar.html
CARIBIC (Civil Aircraft for the Regulary Investigation of the atmosphere Based on an Instrument Container)	None	~100 Lufthansa flights	1997	CO, O3,CO, CH4, CO2, N2O, SF6, NMHC, Position & Meteorology and Cloud cover.	http://www.caribic-atmospheric.com/
AMATRAS (Atmospheric Measurement by Airliners for Trace Species)	None	262 flights between Japan and Australia	1993	CO2, CH4, CO and SF6	http://www.jal.com/en/press/0000336/img/AMATRAS.pdf