

NATIONAL ROUTINE METEOROLOGICAL MONITORING NETWORKS

Network	Lead Agency	Number of Sites	Initiated	Measurement Parameters	Location of Information and/or Data
ASOS -- Automated Surface Observing System	NOAA	~1000 (supplemented by military weather observation sites)	1992 (replaced routine surface observations collected manually at 260 Weather Service facilities)	Continuous measurements of: Wind Direction and Wind Speed; Visibility; Runway Visual Range; Type, intensity and amount of rain, snow, etc.; Obstructions due to fog, mist, etc.; Cloud Height and Amount; Ambient Temperature; Dew Point Temperature; Pressure; Lightning detection; Automated, manual, and plain language remarks on special weather conditions (depending on level of service); and Additive and automated maintenance data on precipitation amount, max/min temperature, pressure tendency, etc.	http://www.nws.noaa.gov/asos/pdfs/aum-toc.pdf
Cooperative Observer Program	NOAA	~11,400	1890	24-hour maximum and minimum temperatures, Liquid equivalent of precipitation, snowfall, snow depth, and Other special phenomena such as days with thunder, hail, etc.	http://www.nws.noaa.gov/om/coop/coopmod.htm
SLAMS -- State and Local Ambient Monitoring Stations	EPA	~3000	1978	Wind direction and speed, Temperature, Precipitation, Relative humidity	http://www.epa.gov/ttn/airs/airsags/aqsweb/aqswebhome.htm
Remote Automated Weather Stations	DOA	~2200	~1978	Wind direction and speed, Precipitation, Pressure, Temperature, Relative humidity, Fuel moisture and temperature	http://www.fs.fed.us/raws/raws101.shtml
NOAA Profiler Network (and Cooperative Agency Profilers)	NOAA	35 (plus ~100 CAP sites)	1992	Vertical profiles of wind direction and speed (and vertical profiles of temperature at RASS sites)	http://www.profiler.noaa.gov/npn/
Upper Air Stations (Weather Balloons)	NOAA	102 in North America, Pacific Islands, and the Caribbean	1937	Measurements of temperature, relative humidity, wind direction and speed, and altitude/height at selected pressure levels.	http://www.ua.nws.noaa.gov/net-info.htm
Forecast Systems Laboratory Aircraft Communications Addressing and Reporting System	NOAA	~4000 commercial aircraft	2001 (routinely available database)	Wind direction, wind speed and temperature reported for various altitudes at which aircraft typically operate	http://acweb.fsl.noaa.gov/FAQ.html#variables
National Doppler Radar Sites	NOAA	158	1990 (national radar network originated prior to 1960)	Base Reflectivity, Composite Reflectivity, One-Hour Precipitation, and Storm Total Precipitation	http://www.srh.noaa.gov/radar/radinfo/radinfo.html
National Lightning Detection Network	Commercial	100+	1989	Detection of cloud-to-ground lightning flashes at distances up to 400 km	http://www.nwstc.noaa.gov/METEOR/Lightning/detection.htm
National Environmental Satellite, Data, and Information Service	NOAA	2 GOES satellites 2 POES satellites	1994 (earlier satellite systems replaced)	Vertical profiles of temperature, moisture, and wind; visible and infrared imagery of clouds; water vapor imagery	http://www.goes.noaa.gov/