

AIRMAP

MAPPING NEW ENGLAND'S CHANGING CLIMATE AND AIR QUALITY

THE MISSION OF AIRMAP is to develop a detailed understanding of climate variability and the source of persistent air pollutants in New England. Our goal is to identify the causes of climate variability, predict air quality changes as an addition to daily weather forecasts, and demonstrate new forecasting technologies.

Our efforts focus on collection and analysis of high resolution physical components (temperature, precipitation, extreme events) and chemical components (ozone and its precursors together with fine respirable aerosols) of the non-urban New England atmosphere, as well as development and implementation of high resolution weather and air quality models.

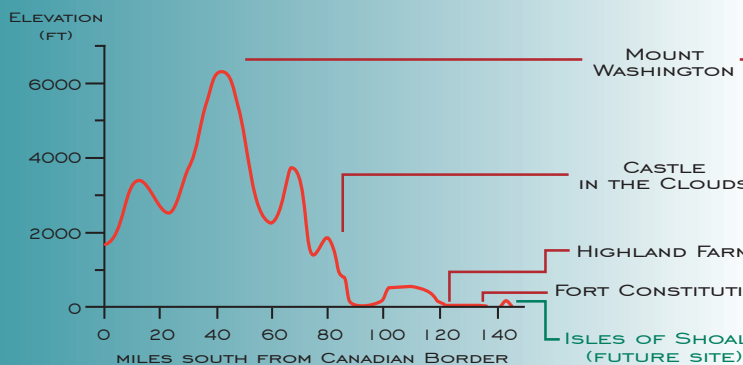
KEY SCIENTIFIC QUESTIONS AIRMAP RESEARCH WILL ADDRESS:

- How is air quality in New England related to weather patterns?
- What are the temporal and spatial patterns of climate change in New England over the past century?
- How do we improve our ability to forecast weather, climate, and air quality in New England?
- What weather, climate, and air quality information do citizens and institutions require to make informed decisions?

AIRMAP MONITORING STATIONS

SCHEMATIC CROSS SECTION

FROM NORTHERN NEW HAMPSHIRE TO THE ATLANTIC OCEAN SHOWING THE LOCATION OF AIRMAP'S MONITORING STATIONS



AIRMAP STATION MEASUREMENTS:

AIR QUALITY:

OZONE
 NITROGEN OXIDES
 TOTAL REACTIVE NITROGEN
 SULFUR DIOXIDE
 CARBON MONOXIDE
 HYDROCARBONS AND HALOGENATED SPECIES
 PARTICLE MASS (<2.5 MICRONS)
 FINE AEROSOL NUMBER CONCENTRATION
 SOLUBLE AEROSOL CHEMISTRY
 VISIBILITY

METEOROLOGICAL:

WIND SPEED AND DIRECTION
 TEMPERATURE
 HUMIDITY
 ATMOSPHERIC PRESSURE
 PRECIPITATION

AIRMAP is a NOAA funded, collaborative research effort involving:

Climate Change Research Center
 University of New Hampshire
 Durham, NH

Plymouth State Meteorology Program
 Plymouth State College
 Plymouth, NH

Mt. Washington Observatory
 North Conway, NH

NOAA's Aeronomy Laboratory
 Boulder, CO

NOAA's Forecast Systems Laboratory
 Boulder, CO

Castle in the Clouds
 Moultonborough, NH

A core project of the AIRMAP Cooperative Institute at the University of New Hampshire.

For more information, visit us online at: airmap.unh.edu