

Surface to Air: Ground-based and *In Situ* Sensors

The University of Iowa has a long track record of single- and multi-investigator studies in the boundary layer encompassing air pollution, aerosols, meteorology, and surface-air exchanges throughout the Midwest.

Key infrastructure for fixed and mobile research is established in Iowa City and many strong, existing collaborations can be leveraged.

Some of the assets and collaborations have been in place for over 20 years.

The physical assets are complementary to many groups focusing on modeling.

Iowa City and Cedar Rapids are good locations for studying the interface of a mid-sized city and corn / soy agriculture.

Instrumented prairie site – flux station



WBI NOAA
Tall Tower



Pandora
Spectrometer



Iowa Air
Monitoring Site



IOWA

Surface to Air: Ground-based and *In Situ* Sensors

By combining long-standing assets in our Engineering, Physical Sciences, and Public Health departments, the University of Iowa has measurement capabilities for aerosols (physical and chemical), water vapor, greenhouse gases, and trace gases:

- Surface-based samplers, including mobile labs
- Aircraft & UAV
- Tall tower
- Remote sensing
- Established field sites with security, power, internet
- Numerous deployments in the region resulting in dozens of papers on aerosols, trace gases, air quality management, and surface-air exchange



The College of Public Health's Mobile Air Sampling Trailer (MAST)

See the poster for more information

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