



## **The New York State Mesonet Weather Observing Network**

The New York State (NYS) Mesonet Early Warning Weather Detection System is an advanced, statewide weather station network. This network will be the first of its kind in New York and will consist of up to 125 surface weather stations that will detect weather phenomena across the entire state. This weather detection system will provide federal, state, and local communities with access to high-resolution, real-time data, and more robust predictive models.

Each of the Mesonet's 125 weather stations will measure surface temperature, relative humidity, wind speed and direction, precipitation, solar radiation, atmospheric pressure, and soil moisture and temperature at three depths. In addition, 17 sites will be outfitted with lidars and microwave profilers, providing wind, temperature, and moisture profiles in the vertical. Another 20 sites will measure snow depth and snow water equivalent for hydrological applications. All of this data will be transmitted in real-time to a central location, where the data will be quality controlled and archived, and then disseminated to a variety of users. Upon completion, real time data along with graphical products/models will be available to the public via a website.

The NYS Mesonet promises a new generation of local weather observations that will support more accurate, more precise decision-making in agriculture, emergency management, energy, ground transportation and aviation. For example, localized soil moisture and temperature data will improve irrigation efficiency, and various pest models will be much improved with more local data inputs.

The NYS Mesonet is now beginning the search for permanent site locations. Each site consists of a 33 ft tower centered within a 33 ft x 33 ft plot of land. To ensure the highest quality of data each station must be at least 300 feet from the nearest obstacle (tall trees, buildings, etc.) or potential heat sources (pavement). If you would be interested in hosting a Mesonet site, please contact Dr. Jerald Brotzge at [jbrotzge@albany.edu](mailto:jbrotzge@albany.edu). If you would like to learn more about the NYS Mesonet, please visit our website at <http://nysmesonet.org>.