THE VERMONT MESONET

THE VERMONT MESONET, a proposed statewide network of advanced weather stations, will provide timely data necessary for extreme weather response, agricultural planning, and a wide array of research initiatives. These stations will measure key variables including precipitation, temperature, wind speed and direction, relative humidity, soil moisture, and snow depth every five minutes.

The high peaks and complex topography of Vermont create unpredictable weather. From sudden downpours to rapid snowmelt, the safety of our communities, the resilience of our infrastructure, and the strength of our economy are at stake.

The Vermont Mesonet aims to reduce significant gaps in the state's meteorological, river forecasting, and flood warning capabilities. Radars in Chittenden County, for example, are blocked by mountains and do not reach certain rural areas in the state. This leaves forecasters and emergency response teams "in the dark" while making forecasts and supporting flooding response efforts.

THE DESIGN

We have worked closely with state agencies, forecasters, and emergency services to design primary Mesonet weather stations tailored to meet specific state needs. The station pictured shows the New York State Mesonet station in Westmoreland, which has a very similar layout to the one we plan to build across Vermont.

KEY PARTNERS

- Vermont Department of Environmental Conservation
- Vermont Emergency Management
- Forest Ecosystem Monitoring Cooperative
- Vermont State University Atmospheric Sciences Program
- Office of the Vermont State Climatologist
- UVM Gund Institute Climate Measurements Center of Excellence
- NOAA's National Weather Service Burlington Forecast Office
- USDA Natural Resources Conservation Service
- Vermont Agency of Transportation

FUNDING

Initial funding has been provided by the Leahy Institute for Rural Partnerships. This seed funding covers the cost of the first prototype station in Lyndonville, Vermont and initial staff time to start the effort.

NEXT STEPS

We are working to secure funding to build out the remainder of the network. Consider joining us as we work to construct 20 additional stations distributed geographically across the state.

CONTACT

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