

Northern Arizona MesoNet (NAM)

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Environmental Science and Education**

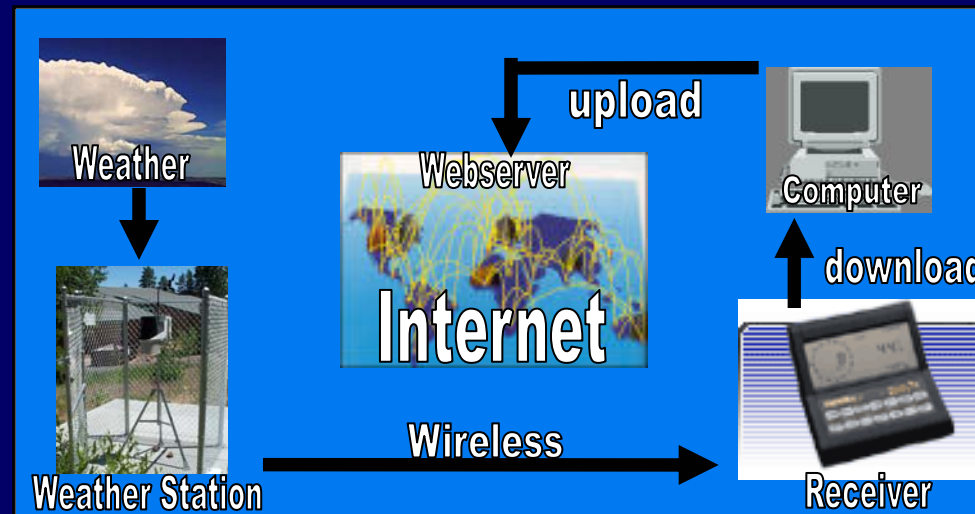
Mike Staudenmaier, National Weather Service

**Carol Haden, NAU Center for Science
Teaching and Learning**

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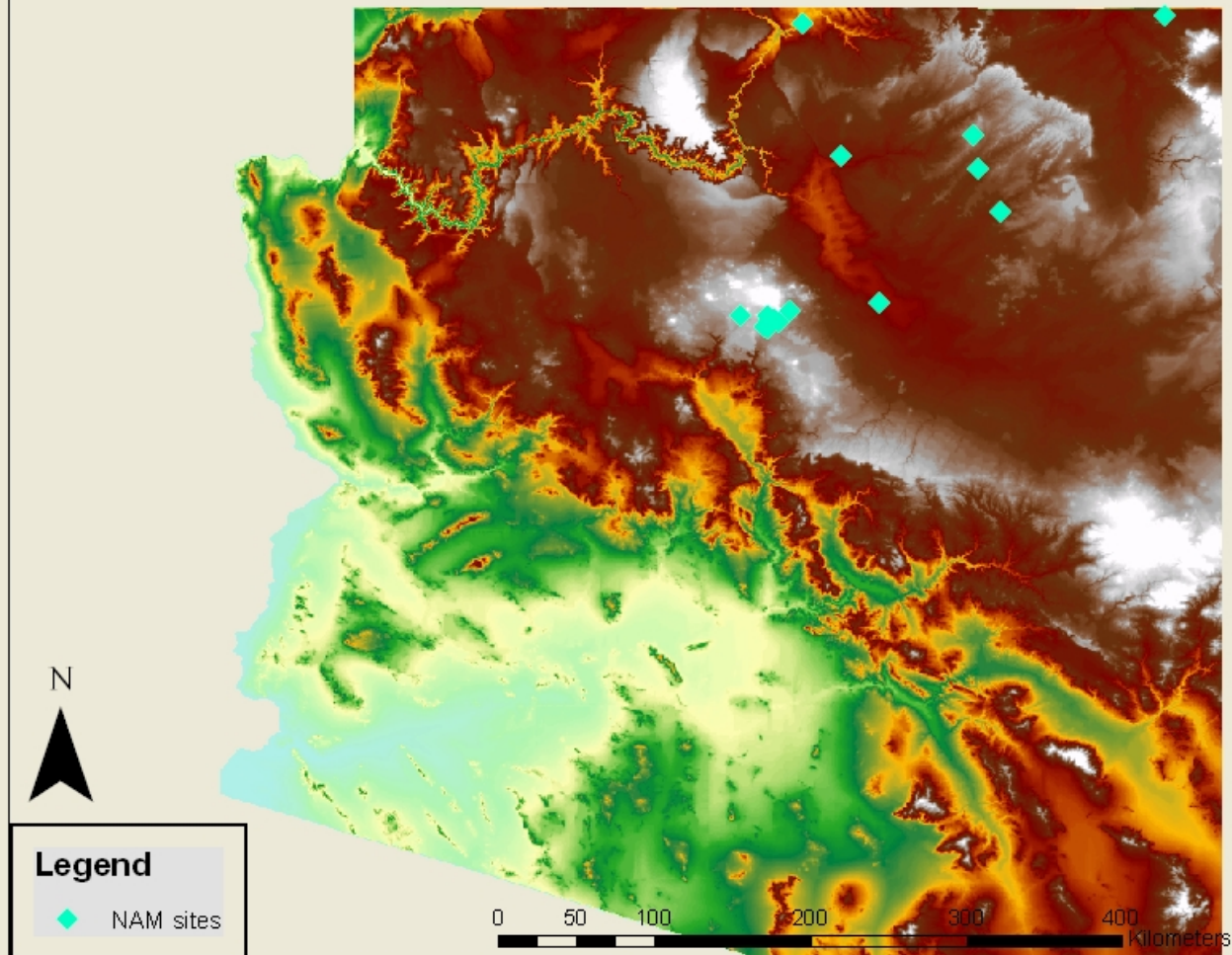
Data Flow

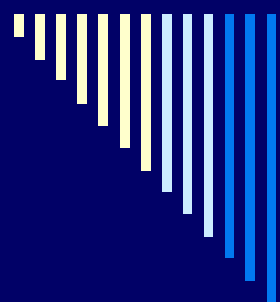
- The Northern Arizona Mesonet (NAM) is a network of wireless, solar-powered weather stations located throughout northeastern Arizona that upload thirteen measured and calculated parameters automatically to a web server every 2 minutes.



NAM URL: <http://www.cens.nau.edu/~nauws/nam.html>

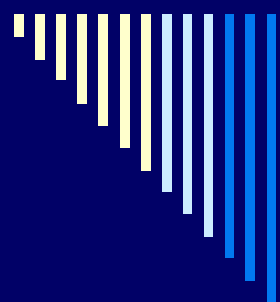
Northern Arizona MesoNet (NAM) Sites





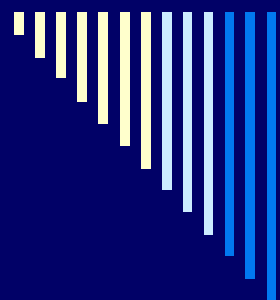
Project objectives

- The objectives of the Northern Arizona MesoNet (NAM) are to:
 - Establish and maintain a network of web-based weather stations that continuously record and report weather data from northern Arizona;
 - Provide real-time access to the data to teachers, students, the general public, meteorologists, climate scientists; and
 - Integrate NAM data into the MesoWest database

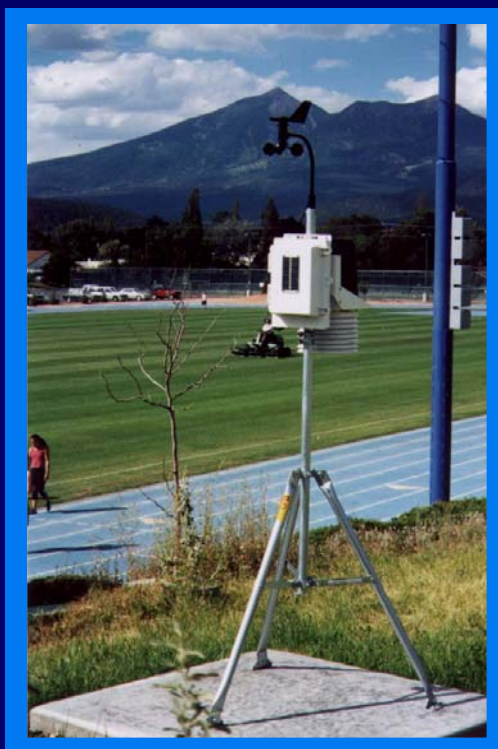


History

- The network was initiated in 2003 through a partnership between NAU and the National Weather Service, and most of the stations were established as part of ABOR-sponsored teacher professional development opportunities to enhance technology-based physical science education.
- The program included:
 - Summer teacher workshops
 - Station deployment
 - Curriculum development



Station



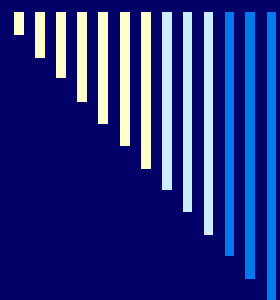
- **Wireless Davis Vantage Pro 2 with Solar Power**

- ***Sensors***

- Anemometer, barometer, tipping rain gauge, radiation shield with temperature and humidity sensor

- ***Display interface***

- Weatherlink or PCLink for Windows and Virtual Weather Station



Stations

Flagstaff Stations:

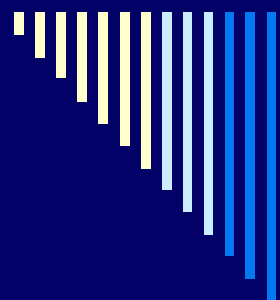
- Aspen Trail Subdivision
- Coconino High School
- DeMiguel Elementary School
- Flagstaff Arts and Leadership Academy
- Flagstaff High School*
- Flagstaff Middle School
- Northern Arizona University
- Sinagua High School

NE Arizona Stations:

- Doney Park
- Hopi Jr/Sr High School (Keams Canyon)*
- Leupp Schools Incorporated
- National Weather Service Office (Bellemont)
- Page Middle School**
- Red Mesa High School (Teec Nos Pos)
- Rocky Ridge Boarding School**
- Tuba City Junior High
- Shonto Boarding School**

**No current web access to data*

***Station not up yet, planned station*



Future Plans

- ❑ Bring Hopi Jr./Sr. High School and Flagstaff High School weather stations on-line
- ❑ Deploy and provide on-line access to Page Middle School, Shonto Boarding School, and Rocky Ridge Boarding School weather stations
- ❑ Make NAM curriculum available on-line
- ❑ Make archived data more easily accessible
- ❑ Identify sustainable funding source