Establishment of the Alabama Mesonet (ALMNET) a Collection of Soil Profile and Weather Stations. (S01-tsegaye212343-Oral)

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Abstract:

The North Alabama Mesonet (NALMNET) is currently operational and providing hydrological and meteorological data for northern Alabama through the Internet. Hydrological and meteorological data collected by ALMNET include temperature (air and soil), soil heat flux, humidity, solar radiation, wind (speed and direction), and precipitation. The main objectives of the ALMNET are to serve as a validation site for current and future satellite mission of monitoring soil moisture (e.g. the Aqua satellite), to strengthen outdoor research and training facilities for both undergraduate and graduate students, and to establish an Online Internet Services for extension agents, farmers and interested individuals to visualize climate related data. Instruments were positioned at 21 locations in five counties. ALMNET also provides an integrated database for

temporal analyses, inter-comparisons between sites, and spatial comparisons across environmental gradients. Our long-term vision is to complete a detail hydrological and meteorological process analyses for North Alabama in collaboration with scientists from NASA, USDA and other Universities. We also hope to expand the ALMNET recording sites throughout Alabama as our resources permit.

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Presentation Information:

Presentation Date: Wednesday, November 13, 2002
Presentation Time: 9:45 am

Keywords:

Weather, Mesonet, Soil, ALMNET