UNH Awarded $2.1 Million for Weather Research

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DURHAM, N.H. -- An important research project on new technology that could greatly improve the ability to forecast the weather will continue at the University of New Hampshire, thanks to funding announced by U.S. Sen. Judd Gregg (R-NH) this week. Gregg secured $2.1 million in funds for the university's GroundWinds project as chairman of the Senate panel that oversees the National Oceanic and Atmospheric Administration (NOAA), the federal agency responsible for atmospheric research.

The [UNH Institute for the Study of Earth, Oceans and Space](#) (EOS), which is working on the project with the Mt. Washington Observatory, will test satellite technology that could increase weather forecasting time and predictability. Currently wind speed is measured by balloons, but this new technology called LIDAR (Light Detection and Ranging), which works with light radar, would cover greater sections of the globe with higher accuracy.

Instrument demonstrations using this technology will occur near North Conway, N.H., and on the Mauna Loa Observatory in Hawaii. Eventually, the LIDAR wind profile technology will be adapted for a satellite system.

Commenting on the grant, Gregg stated, "I am pleased that this cutting-edge experiment will occur in New Hampshire as it builds upon the expertise being developed in weather research at UNH and the Mt. Washington Observatory. Given its record-setting wind patterns, Mt. Washington is the logical choice to field test this instrument. Hopefully, this advanced research will result in state-of-the-art technology that helps weather forecasters save lives and property."

According to a 1998 NOAA report, "Inadequate wind data coverage over the oceans bordering the continental U.S. has been a chronic problem that impacts accuracy

potential for improved 1 to 5 day forecasts ... the most important gap in the current observing system for these forecasts is the absence of wind profile data. ä Experiments ... using supplementary wind observations for hurricanes have shown dramatic improvements in forecast track."

"We are delighted to be able to continue to work with NOAA on this important new technology," said Berrien Moore III, EOS director. "Developing the capability to measure winds in the atmosphere from space will be a major step toward significantly advancing our ability to predict tomorrow's weather."

UNH researchers have been studying the significance of wind patterns in several layers of the atmosphere to improve the prediction of weather. By studying the wind patterns from an orbiting satellite they may discover beneficial information for short- and medium-range weather prediction, which could enhance seasonal climate research and reduce property loss and casualties resulting from natural hazards.

Initial funding for the GroundWinds LIDAR system was secured by Gregg last year.

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