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Project Description

This project supports a National Science Foundation (NSF) funded basic science investigation of the mesosphere and lower thermosphere. The project name is "MAUI/MALT: A Meteor Radar for Collaborative Investigations of Waves, Winds, and Temperatures in the Mesosphere Above Haleakala, Hawaii." The experimental radar described herein will operate on Maui in conjunction with optical instrumentation installed nearby on Mt. Haleakala for joint studies of the altitude region between 80-100 km. Radar echoes from meteor trails will be used to estimate the wind velocity in the region. The data will also be used to investigate and develop a new method for estimating temperature in the region. The new temperature estimation technique is based on measurements of the decay-time of the meteor echoes. This project will contribute to basic scientific understanding of the mesosphere and lower thermosphere (MALT) region as well as to the development of new radar remote sensing techniques.

The National Science Foundation grant number that supports this project is NSF ATM 00-03182 from the Aeronomy Division within the Geosciences directorate. The contact person at NSF is Dr. Sunanda Basu (sbasu@nsf.gov).  
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