Faculty member receives $94,000 grant

Professor, students to do research on winter storms

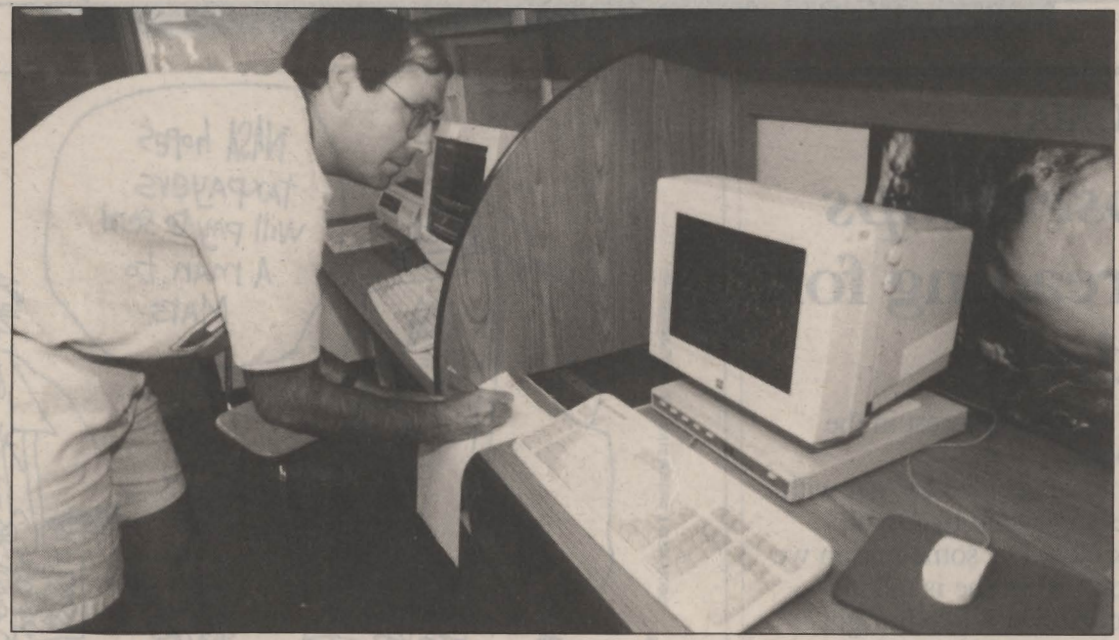
by Riley Worth
ASSISTANT MANAGING EDITOR

SCSU meteorologist Bob Weisman has received his second research grant from the National Science Foundation one year after publishing results from his first research project.

"These grants are not made from an endless supply of money," said professor Alan Anderson, Weisman's colleague in the meteorology department. "So the fact that he was successful in acquiring the grant is already some measure of success. It's an indication of the fact that other people agree this study is worthwhile and has some merit to it."

The $94,000 grant will be used to study poorly forecasted weather features in the Northern Plain states. The study is titled, "Precipitation Regimes Associated with Inverted Troughs."

Weisman said he has been looking at the topic for three years, including 18 months of preliminary research in preparation for the grant proposal.



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Professor Bob Weisman checks the weather Monday morning in the Meteorology Center in room 56 of the Math and Science building. He reads charts and computers daily for the forecast.

According to Weisman, he and former student Keith MacGregor looked through six years worth of maps on microfilm. From these maps they found that storms with non-conventional fronts, known as inverted troughs, cause forecasting problems for meteorologists an average of 40 times a winter in the Northern Plains region.

"These storms are relatively frequent," Weisman said. "We tried to identify that it was a forecasting problem — that it was an important problem in the science."

In preparation for the writing of the grant proposal, MacGregor presented the topic at a workshop on winter weather in February at the University of Wisconsin-Madison. Weisman said a lot of people at the workshop showed interest in the topic and that encouraged him to apply for the grant.

Also, Weisman said his positive experience with his last NSF grant enticed him to apply for another, and he has at least three other topics he is working on getting grant money for when this project is done.

"A major feature of the grant is that it provides opportunities for our students to work with Dr. Weisman on a current weather research project," Anderson said. "Also, students will get to study in the area of their career field."

Weisman added, "This is a great thing for SCSU's Earth Sciences department. We can hire more students for these grants. It really helps our students to become more qualified."

Approximately six to eight students will work on the project during the life of the grant, which is scheduled to take three years. The first student worker will be hired early this fall, Weisman said. The rest will be hired as needed.

Part of the grant will be used to fund students' trips to Phoenix for a national conference in January. The undergraduate students will present their topic to researchers, professors and graduate students. Weisman said its very rare for undergraduate students to be there, let alone to be presenting.

Weisman said in addition to helping the program and the students, the grant will also benefit local forecasters and help him in his teaching.

"My teaching is not as good if I don't keep up to date," he said. "It all feeds back positively."

Weisman said that a grant like this, only the third awarded to an SCSU professor, is given out more frequently to schools with large graduate studies such as the University of Minnesota-Twin Cities. At these schools with large graduate programs, professors only teach a couple of classes each year, while concentrating on research projects.

"We're primarily an undergraduate institution," Weisman said. "Our mission at SCSU is primarily to teach with research on the side."