

FOR IMMEDIATE RELEASE

October 23, 2014

Contact: John Keller

805-756-2403; jmkeller@calpoly.edu

Cal Poly Shares \$1 Million Grant to Fund Citizen Science Astronomy Research

SAN LUIS OBISPO — Cal Poly and the Southwest Research Institute in Boulder, Colo., have received a \$1 million collaborative grant from the National Science Foundation to continue a citizen-scientist astronomy project in rural communities in the Western U.S. stretching from the Mexican border to the Canadian border.

More than 40 towns along the eastern edge of the Sierra Nevada and Cascade mountain ranges and down the Colorado River will receive telescopes and training through the grant.

The towns in this second phase of the project will join 13 pilot communities to form the Research and Education Collaborative Occultation Network (RECON). Scientists John Keller, a Cal Poly physics professor, and planetary scientist Marc Buie will lead the network of teachers, students and amateur astronomers in measuring the sizes of Kuiper Belt Objects (KBOs) — large, frozen bodies that orbit the sun in the outer region of the solar system.

"This project is an innovative and exciting opportunity for students and community members from across the Western U.S. to directly contribute to our understanding of the Kuiper Belt," said Keller.

At predicted times, KBOs that pass between Earth and a given star will hide the star from view, an astronomical event called an occultation. Observers located in the path of a KBO's shadow can record the star blinking out and reappearing. The length of time that the KBO blocks the starlight can be used to determine its size.

Because of the inherent uncertainty in the predicted location of each shadow's path, Buie and Keller are recruiting participants along a 1,200-mile stretch from Canada to Mexico.

Buie, from the Southwest Research Institute, has been involved in the discovery of KBOs over the past two decades. "Now that we know these objects exist, we want to know more about them," Buie said. "Working with our citizen scientists is an effective way to find out the size, shape and several other characteristics of the KBOs we study, which in turn will shed light on the origins of our solar system."

Both Buie and Keller see the benefits of RECON stretching far beyond what scientists will learn about KBOs. "These rural cities joining the RECON project are highly underserved communities," Keller said. "This makes the excitement of scientific discovery real for a whole network of high school students and citizen scientists."

"The town of Hawthorne, Nev., and the Mineral County School District now have a telescope to share for educational and community use, the first time ever," said community member Kathy Trujillo. "The high school was able to offer an astronomy class. Imagine the wonder in a student's eyes when she sees the rings of Saturn for the first time."

During fall 2014, Keller and Buie will recruit team members through trips to Washington, Oregon, Nevada, Arizona and California. The full network will be up and running by April 2015.

"It's so exciting that federal funding will allow our students to grow and learn with the RECON project throughout their high school careers," said Trujillo. "The benefits of this project, including scientific research, are hard to comprehend."

For more about RECON, visit: www.tnorecon.net.

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Phone: 805-756-1111