

DRAMATIC DELIVERY:

\$620,000 instrumentation lifted through window

The large crowd of faculty, students and local media gathered behind barrier tape on the north side of the Math/Geosciences Building on an October morning breathed a collective sigh of relief as a large crate containing scientific instrumentation was safely delivered through the building's second-floor window.

The instrumentation, a thermal ionization mass spectrometer, or TIMS, is the centerpiece of a new Isotope Geology Laboratory that is the first of its kind in the Interior Northwest. The TIMS was acquired with a \$620,000 instrumentation grant from the National Science Foundation. Boise State geosciences professor Mark Schmitz procured the grant.

The unusual delivery method was necessary because of the size of the instrumentation and its sensitivity to being tipped more than about 15 degrees. After studying the possible delivery methods, BSU crews decided to remove the glass from the second-story window of the Math/Geosciences Building and use a fork lift to get the various crates containing the instrumentation into the building.

Schmitz says he was very pleased that the operation went so smoothly. With the help of a support engineer from the Manchester, England, company where the TIMS was built, Schmitz and his colleagues then set up the instrumentation in the new ultra-clean lab.

The TIMS measures the products of radioactive decay in microscopic minerals and can be used to determine the age of geologic materials such as rocks or fossils, and the composition of environmental samples such as dissolved minerals in water or lead contaminants in soil. The instrumentation will

enable Boise State faculty and students to collaborate with scientists at similar labs at the Massachusetts Institute of Technology, the University of California-Berkeley and other research universities as part of a National Science Foundation program.

Among the national-scope projects Boise State will join is an NSF-funded initiative to precisely date the Earth's geologic history. Another project focuses on understanding future climate change by documenting how the Earth's climate has changed over the past 500 million years.

In addition, the new TIMS equipment will support a number of local and regional research projects, such as determining when volcanic eruptions occurred on the Snake River Plain, or tracing how quickly water flows underground through the Boise Foothills and what dissolved minerals it picks up along the way.

Boise State now has the only TIMS capabilities in a geographic area stretching from the University of Washington in Seattle to the University of Wyoming in Laramie, Wyo. As such, the facility will be an important regional center of training for the next generation of geoscientists, and may also support research at the Idaho National Laboratory, Schmitz says.

"Geoscience is a global science, and we anticipate that current and future partnerships with scientists in Europe, Russia, South Africa, Australia and South America will flourish with the resources made available through this new facility," Schmitz adds.



CARRIE QUINNEY



CARRIE QUINNEY