

# Idaho Scientists Find New Seismic Fault in Rockies

Laura Zuckerman, Reuters, 11-18-10

SALMON, Idaho -- Scientists at Idaho State University have mapped a previously unknown and active seismic fault in the northern Rockies capable of unleashing an earthquake with a magnitude as high as 7.5.

The newly discovered fault in central Idaho does not lie in a densely populated area.

But Glenn Thackray, chairman of the university's geosciences department, said the 40-mile-long fracture in the Earth's crust at the base of the Sawtooth Mountains near the tiny mountain town of Stanley is cause for some concern.

"There's a chance in the next few decades there will be an earthquake on this fault, and if it does happen it will be a rather large earthquake," he said.

A 7.5 tremor is considered a major earthquake, capable of widespread heavy damage.

Such a temblor would be most keenly felt at an epicenter near Stanley, home to about 100 year-round residents, with moderate shaking expected to extend from the resort community of Sun Valley to the capital city of Boise, Thackray said.

Scientists located the fault with a remote sensing technique that relies on laser-equipped airplanes. They were able to gather data about its history by analyzing sediment cores lifted from Redfish Lake, a mountain lake on the fault line famous for its historic sockeye salmon runs.

Thackray said researchers believe the fault triggered two earthquakes over the past 10,000 years, one some 7,000 years ago and another 4,000 years ago, suggesting significant seismic activity occurs at the site every several thousand years.

"Predicting when a fault might rupture is a real uncertainty of science," he said. "The problems with earthquakes and faults are they don't follow reliable patterns."

Given the findings, it may be prudent for towns like Stanley to revamp building codes and emergency preparedness plans, Thackray said.

A fault at Idaho's tallest mountain caused a 6.9 magnitude earthquake in 1983. The Borah Peak earthquake killed two children when a storefront collapsed in the central Idaho town of Challis and damaged buildings within a 50-mile radius. Other active faults in central Idaho lie in the Beaverhead, Lemhi and Lost River mountain ranges.