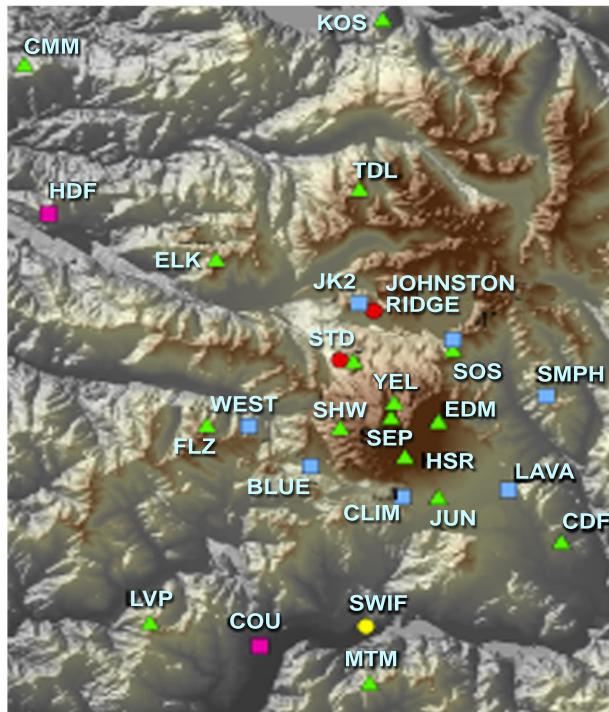


## deployment: mt. st. helens

During October, CERI researchers deployed seismic instruments at Mount Saint Helens (MSH) to help monitor recent seismic and volcanic activity. Six broadband seismometers and three accelerometers were deployed within the 5 mile restricted area surrounding the volcano. The restricted zone is closed to the public due to the possibility of an eruption. The CERI network was deployed in cooperation with the Pacific Northwest Seismic Network at the University of Washington, and the Cascades Volcano Observatory of the US Geological Survey.

MSH has experienced a dramatic and complex episode of seismicity, deformation, and dome building since late September, and the current status is at Volcano Advisory Alert Level 2. The CERI network has provided valuable data to help document this episode, and data needed to maximize public safety. A long-period tremor (5 -10 second period) began around 1200 hrs (GMT) on 6 Oct. and continued for at least two days. It was observed throughout the local broadband network, but not at a site ~68 km to the north. Evidence points to a local source for these vibrations, within the magmatic "plumbing" beneath the volcano. Thousands of volcanic microearthquakes have been recorded by the network, with a rate that waxes and wanes as different eruptive phases occur.

MSH is still extruding lava, and the potential for a significant eruption, is uncertain. CERI plans to operate the network through May 2005 if activity continues to warrant. The CERI field team included Dr. Stephen P. Horton and graduate student Thomas Brackman. Further deployment information is available at the website below



[www.ceri.memphis.edu/msh/](http://www.ceri.memphis.edu/msh/)



"Johnston Ridge is a main observation point that is very close to the mountain. Originally it was a simple observation point with a few campers. This is the place where researcher David Johnston was watching the volcano the first time it blew. He had enough time to tell the Volcano Observatory that the eruption had begun. The eruption began with the sliding of the mountain. What he probably saw was the better part of a mountain, fractured and water logged, sliding down towards him. The slide broke into three lobes. One went into Spirit Lake raising the water level over 300 feet. The second went 17 miles down the Toutle River and generated mudflows that almost took out the I-5 Bridge. The third came directly at the 1300 foot ridge and slopped over the top. Immediately after that the blast, possibly triggered by the release of pressure from removal of the mountaintop, the mountain sent out hot gasses and rock. The area was devastated, there was no sign of life. A thirty year old researcher had given his life in the pursuit of scientific knowledge."

It was an honor and privilege to be here. The view, immensely spectacular, also left you with the feeling of helplessness. We installed the K2, took some pictures and decided to leave. There were mixed feelings. The place wanted to keep you there. The pumice plain, with its large pieces of the old mountain top sticking out of it, the deep gullies, the mountain in the background with the ever-growing lava dome, all conspired to keep you there. However, the thought of a mountain and its internal fury coming at you at a high rate of speed put feelings of apprehension deep into your soul."

October 5, 2004 (Thomas Brackman)