

New Instrumentation for Rapidly Responding to Geohazards

Justin Sweet, Kent Anderson, Bob Woodward

New and emerging seismograph technologies offer significant improvements for addressing challenging environments commonly associated with geohazards. In particular, recent technological developments have reduced the size, weight, and power of available systems, making them far easier to transport to the field, with attendant improvement in response time (days as opposed to weeks). Real-time telemetry, an emerging new capability for portable instruments, could be a game changer by allowing investigators to immediately assess ongoing activity, adapt their response while in the field, and provide more timely information to inform hazard assessment and recovery efforts.

As part of the current SAGE award from NSF, IRIS is fortunate to have funding to procure a new pool of instrumentation dedicated to rapidly responding to geohazards. Beginning last spring, IRIS has convened a number of in-person and virtual gatherings to solicit community input on what a preferred rapid response capability would look like. Using this input, over the next several years IRIS intends to purchase a new set of instrumentation dedicated to rapidly responding to geohazards. PIs will be able to schedule and use this equipment from the PASSCAL Instrument Center, and we will be working with the community on usage policies to assure the availability of these instruments for geohazard-related observations.