

Tono seismic array observation system for ACROSS

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A small-scale seismic array was installed along an L-shaped underground gallery at the depth of 125 m in the Tono mine. The array consisting of 8 servo-type seismometers, spans 150 m in NS direction and 250 m in EW direction. The accurate time keeping within sub-microsecond to UTC was achieved for data sampling clock by means of optic fiber linked to GPS antenna. This seismic array is designed to determine a very accurate transfer function of acoustic waves from the ACROSS signal source. It is stable enough to detect and monitor continuously any small time variation of seismic structures by stacking recorder rejecting large eventual input, which is recorded in another data logger by event trigger. This system started operation from February 2000.