A preliminary report on the seismic dense array for the seismic experiment 2006 in Asama volcano

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A preliminary report on a seismic array observation in Asama volcano will be presented with its field operation and obtained waveform data. The purpose of this observation is detecting reflection from several kilometers beneath the volcano and revealing image of magma feeder system which represented in the west of the volcano.

A temporal network was deployed around Kurumazaka pass at the west of Asama volcano with north-south strike over 8.5km for observation of seismic explosions for volcanological exploration.208 temporal stations were spread with about 50m interval. 4.5Hz type sensors and model LS8200SD recorders are installed at a station. Continuous recording were programmed in order to capture all the shots. Positioning of the stations was made by the rapid-static method with using GPS receivers installed on the vehicles of each party and operated while their installation operations. A reference station for GPS operation is placed in the center of the array. Whole array was split into three sections and three pairs were deploying instruments for three days.

206 stations were successfully completed their data acquisition. Data editing has already completed and are now under processing. Important description of the obtained data are as follows; Complicated later phases with high apparent velocity appear at 2km north of Kurumazaka pass while rather simple appearance of later phases in the south of the pass. Suppressed first arrivals are observed around the pass from the eastern shot of the volcano. Moreover, relative faster arrivals are observed from the western shot. More detailed structure is expected after our analysis from appearance of data.

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