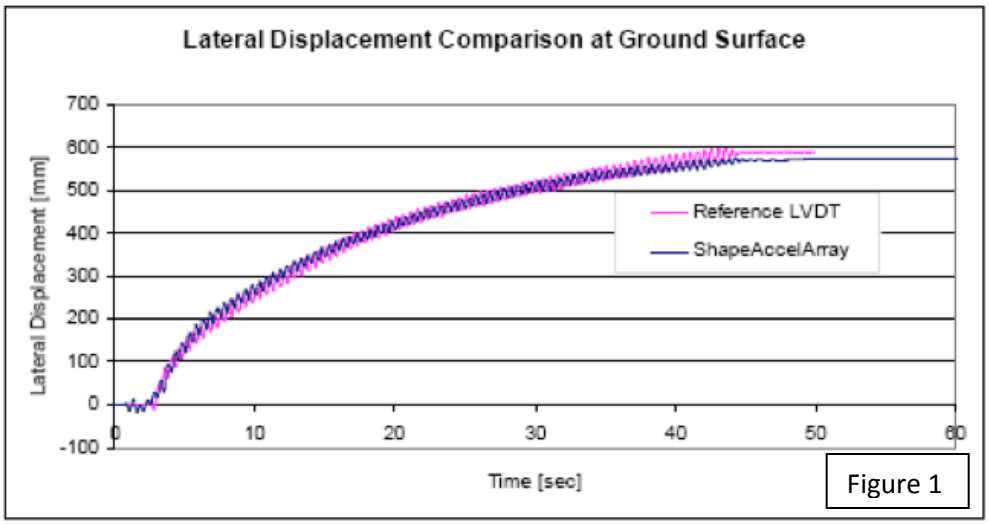

Figure 1

Figure 1: Combined vibration and deformation measured with SAA and LVDT in a shaker box experiment.

Figure 2: Laminar shear boxed set-up at Rensselaer Polytechnic Institute. (RPI), New York, US.

Figure 3: Test set-up at National Research Institute for Earth Science and Disaster Prevention (NIED), Japan.

Figure 2

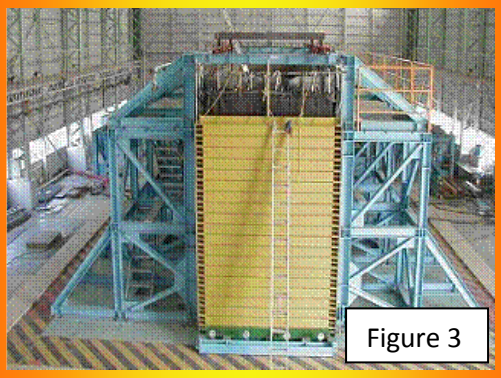

Figure 3

Two separate facilities used SAARs to monitor 1-g models of earthquake induced slides. SAAR was used to monitor vibration and dynamic deformation during tests in laminar shear boxes mounted on 2D and 3D shaker tables. The experiments included vibration, followed by slope failure and consequent mixed vibration/deformation.

In these installations, Measurand SAARecorder software was used to capture data, which was synchronized to the acquisition times of other experimental data, using Measurand digital interfaces between a PC and the arrays. Post-processing of exported data enabled selection of filtering bandwidths to separate deformation from vibration.

Lateral displacements at the surface were measured using the SAAR and a reference Linear Variable Differential Transformer (LVDT). Data collected from each sensor was plotted and is shown in Figure 1. As can be seen, the SAAR returns similar results to those obtained with the reference LVDT.

Photos and graphs courtesy of: NIED and RPI