Livermore researchers work with scientists in many Middle Eastern countries to gather and evaluate ground-motion data. In 2002 Livermore seismologist Artie Rodgers (center) and colleague Cindy Larsen (right foreground) from the Department of Energy worked with a team in the United Arab Emirates to install the country’s first seismic monitoring station.

Vertical ground displacement for a site in the Middle East is less accurately captured in a (a) one-dimensional model than in the (b) newer, three-dimensional model. Comparing the models with recorded ground motion indicates that the 3-D model better predicts the observed data.