A numerical study of oscillatory two-layer stratified flow over three-dimensional topography LAURA BRANDT, JAMES ROTTMAN, Science Applications International Corporation — A fully-nonlinear numerical model of two-layer stratified flow over three-dimensional topography is used to investigate the generation and propagation of interfacial waves by steady as well as oscillatory flows. Quantitative comparisons of the simulation results are made with shallow-water and weakly nonlinear theories. Qualitative comparisons are made with laboratory experiments and ocean observations.