



**Figure S1.** Recovery for October 4th, 2015 14:24 – 16:00 UTC, during a time dominated by Rayleigh waves. The R-wave recovery is shown in (a), P waves in (b), horizontally-polarized S waves in (c), and vertically polarized S waves in (d). The dominant contribution is Rayleigh waves propagating to the West. Note that for (a), we have shifted the azimuth such that West is in the center solely for illustrative purposes.