

Figure 4. Sample observations from ERNY (East Rockaway, NY). Installation consisted of a REF TEK data logger and a CMG40T sensor placed on the surface in a small fiberglass enclosure.

**a)** Shear wave splitting measurement on an SKS phase. Waveforms are filtered in 0.025-0.3 Hz passband. Upper panels show observed data, lowerpanels show waveforms corrected for the effect of event 00.220.14 phase PKiKP site ERNY baz 331.06 dist 143.12  $R x^2$   $T x^2$ 0.000 time, s 15.025



anisotropy. Splitting parameters are shown in the lower right panel: fast direction  $\phi = 109.12^{\circ}$ , delay is 0.41 s. Note reduced ellipticity of particle motion. This observation aggrees well with measurements further inland (Levin et al, 2000), suggesting continuity of structures. **b)** PKiKP phase from an earthquake 143 ° away is particularly bright due to a caustic in the travel time curve. Waveforms are filtered in 0.025-1.5Hz passband. Motion on horizontal components is a result of near-surface reverberations that form data for receiver function analysis. Of particular interest is SH-polarized motion (T component) indicative of lateral heterogeneity and/or anisotropy.

c)Location of the station on the oceanward shore of Long Island.