ESCI7205 hw10

**Due Tu., Nov 22, 2011.**

Download broadband seismic data for your assigned earthquake (see below) from the IRIS/DMC using WilburII.

Choose 15-20 stations in the continental US in a narrow azimuth range to make a record section plot. You can use data from the whole US, the TA array, or any other array – Berkeley, USGS, CalTech, etc. that you can select in WilburII.

Make two record section plots of the P arrivals on the Z component (or Pdiff if you can’t see P, or PP if you can’t see Pdif, if the earthquake is >104° away. Or P merging into Pdif if the distance range straddles 104°). The first plot should be a “regular” record section; the second plot should have a reducing velocity that aligns the arrivals (approximately) vertically (as the example in class).

Low pass filter the data, using SAC’s defaults for the poles and passes, shown in the plots with a 10 second corner frequency (if this does not work – i.e. it removes the signal – see me for a new cut-off frequency).

Nayeem: 2011/03/11 05:46:23 38.322 142.369 9.0 28050 Japan

Cecilia: 2010/02/27 06:34:14 -35.846 -72.719 8.8 577 Chile

Sara: 2009/09/29 17:48:10 -15.489 -172.095 8.1 192 Samoa Islands

Wes: 2007/09/12 11:10:26 -4.438 101.367 8.5 25 S. Sumatra, Indonesia

Moji: 2007/08/15 23:40:57 -13.386 -76.603 8.0 650 Peru

Amanda: 2007/04/01 20:39:58 -8.466 157.043 8.1 34 Solomon Islands

John: 2007/01/13 04:23:21 46.243 154.524 8.1 Kuril Islands

Ali: 2006/11/15 11:14 46.592 153.226 8.3 Kuril Islands

Bryan: 2006/05/03 15:26 -20.187 -174.123 8.0 Tonga

key to columns

Date time lat lon mag deaths where