This data set comprises hypocenters and related information obtained from the analysis of seismic records recorded in the summer of 1995 on the Endeavour segment of the Juan de Fuca mid-ocean ridge. It comprises 6 ASCII files of numeric data and one ASCII file that describes the contents of the data files

The reference which describe in detail the experiment and how the hypocentral locations were obtained is

Wilcock, W. S. D., S. D. Archer, and G. M. Purdy, *Microearthquakes on the Endeavour segment of the Juan de Fuca Ridge*, J. Geophys. Res., 2336, doi:10.1029/2001JB000505, 2002.

The following reference is also relevant to file EnEq95_hypo_1899.dat
Wilcock, W. S. D., *Tidal triggering of microearthquakes on the Juan de Fuca Ridge*, Geophys. Res. Lett, 28, 3999-4002, 2001.

SUMMARY OF FILES

EnEq95_readme.dat - Description of file contents (this file)

EnEq95_station.dat - Location of the 15 ocean bottom seismometers deployed in this study

EnEq95_velocity.dat - Layered velocity model used to locate the earthquakes

EnEq95_hypo_1750.dat - Location of 1750 earthquakes with at least 1 S wave and 4 P wave arrival times

EnEq95_hypo_1899.dat - Location of 1899 earthquakes with at least 4 arrival times used in the study of tidal triggering

EnEq95_relreloc_swarm.dat - Location of earthquakes obtained by relative relocations of 23 data subset corresponding to earthquake swarms

EnEq95_relreloc_axial.dat - Locations of earthquakes obtained by a relative relocation of earthquakes in the vicinity of the ridge axis

DATA FILE DETAILS

EnEq95_station.dat

```
1 row per ocean bottom seismometer
  Column 1 - numeric identifier for ocean bottom seismometer
  Column 2 - Longitude (decimal degrees east)
  Column 3 - Latitude (decimal degrees north)
  Column 4 - Depth below sea level (km)

EnEq95_velocity.dat
  1 row per layer (the last layer is a half space)
  Column 1 - Depth below the seafloor of the top of the layer (km)
  Column 2 - P-wave velocity (km/s)

EnEq95_hypo_1750.dat
  1 row per earthquake
  Column 1  - A unique numeric earthquake identifier for each earthquake
  Column 2  - Year of origin time
  Column 3  - Julian day of origin time
  Column 4  - Hour of origin time
  Column 5  - Minute of origin time
  Column 6  - Second of origin time
  Column 7  - Longitude (decimal degrees east)
  Column 8  - Latitude (decimal degrees north)
  Column 9  - Depth of earthquake below a datum of 2.3 km below sea level
                corresponding to the average depth of the seafloor in the study
                area (km).  A negative value of -3.00 indicates that the
                hypocenter was poorly resolved and that the earthquake was
                located with a fixed depth of 3 km
  Column 10 - Maximum one-standard-deviation horizontal location uncertainty
                (km)
  Column 11 - One-standard deviation vertical uncertainty (km) - set to zero for
                locations with a fixed depth
  Column 12 - Number of stations used in the location
  Column 13 - Number of arrival times used for the location
  Column 14 - Number of P-wave arrival times used for the location
  Column 15 - Number of S-wave arrival times used for the location
  Column 16 - Root mean squared value of the adjusted travel time residual.
                S wave residuals were multiplied by 0.5 prior to calculating
                this value; P wave residuals were left unchanged
  Column 17 - Horizontal distance (range) to the nearest station (km)
  Column 18 - Logarithm to base 10 of the earthquake moment in N-m.  A value of
                zero implies that no value was determined
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EnEq95_hypo_1899.dat

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  As for EnEq95_hypo_1750.dat
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EnEq95_relreloc_swarm.dat

Column 1 - A numeric identifier that identifies the 23 separate relocations of earthquake subsets. These numbers correspond to the swarm identifiers used in Table 2 of Wilcock et al. (2002) as follows:
1 - W5, W7 - Two nearby swarms relocated together
2 - W3
3 - W2
4 - W9
5 - W1
6 - W8
7 - W4
8 - W6
9 - E1
10 - E5
11 - E3
12 - N1, N2 - Two nearby swarms relocated together
13 - N3
14 - S1, S2 - Two nearby swarms relocated together
15 - E2
16 - E4
17 - A5
18 - A4
19 - A6
20 - A7
21 - A3
22 - A2
23 - A1

Column 2 - A unique numeric earthquake identifier for each quake
Column 3 - Year of origin time
Column 4 - Julian day of origin time
Column 5 - Hour of origin time
Column 6 - Minute of origin time
Column 7 - Second of origin time
Column 8 - Longitude (decimal degrees east)
Column 9 - Latitude (decimal degrees north)
Column 10 - Depth of earthquake below a datum of 2.3 km below sea level corresponding to the average depth of the seafloor in the study area (km). A negative value of -3.00 indicates that the hypocenter was poorly resolved and that the earthquake was located with a fixed depth of 3 km.
Column 11 - Maximum one-standard-deviation horizontal location uncertainty relative to other earthquakes in the relocation (km)
Column 12 - One-standard deviation vertical uncertainty relative to other earthquakes in the relocation (km) - set to zero for locations with a fixed depth
Column 13 - Number of stations used in the location
Column 14 - Number of arrival times used for the location
Column 15 - Number of P-wave arrival times used for the location
Column 16 - Number of S-wave arrival times used for the location
Column 17 - Root mean squared value of the travel time residual(s)

EnEq95_relreloc_axial.dat

As for EnEq95_relreloc_swarm.dat except that column 1 is 0. This file represents the results of single relocation of earthquakes in the vicinity of the mid-ocean ridge axis