Updated to include information for JdF_Endeavour_earthquake_catalog_v2.txt.

README from Zoe Krauss (School of Oceanography, Univ. of Washington, Seattle, WA)

The microseismicity catalog contained in the 1 data file is derived from three separate local ocean-bottom seismometer networks on the Endeavour Segment of the Juan de Fuca ridge. The earthquake locations in this catalog from the first network, deployed from June-August 1995, are relocations of the Wilcock (2002, doi:10.1029/2001JB000505) earthquake catalog (doi:10.1594/IEDA/306478). Earthquake locations from the second network, deployed from August 2003-October 2006, are relocations of the Weekly et al. (2013, doi:10.1002/ggge.20105) earthquake catalog (doi:10.1594/IEDA/321736). The third deployment is from the Ocean Networks Canada NEPTUNE cabled observatory, for which we include newly published earthquake locations from August 2016-February 2021. All earthquakes are located using 3-D velocity models and NonLinLoc.

The data file is associated with the publication:

Krauss, Z., Wilcock, W. S., Heesemann, M., Schlesinger, A., Kukovica, J., & Farrugia, J. J. (2023). A Long-Term Earthquake Catalog for the Endeavour Segment: Constraints on the Extensional Cycle and Evidence for Hydrothermal Venting Supported by Propagating Rifts. *Journal of Geophysical Research: Solid Earth*, *128*(2), e2022JB025662. doi:10.1029/2022JB025662

Each row in the text file contains the information for 1 located earthquake.

Columns:

1- Earthquake origin time in unix format
2- Label specifying which of the three networks was used to locate the earthquake, given as the first operational year of the network
3- Latitude of earthquake
4- Longitude of earthquake
5- Depth of earthquake in km
6- Whether or not the earthquake depth was fixed: 0 if depth was free, 1 if depth was fixed
7- Horizontal location uncertainty in km
8- Vertical location uncertainty in km
9- Moment release of earthquake in dyne-cm
10- Number of picked arrivals used to locate earthquake

An updated datafile, which includes an extended earthquake catalog from the Ocean Networks Canada NEPTUNE cabled observatory (NV) covering August 2016-December 2023, is available as JdF_Endeavour_earthquake_catalog_v2.txt. This version does not contain earthquakes from 1995 or 2003-2006. Earthquake moments do not have station corrections applied as in Krauss et al. (2023, doi:10.1029/2022JB025662), but are simply the median of all moment estimates between stations. Earthquakes from August 2016-February 2021 in this catalog are also in the

JdF_Endeavour_earthquake_catalog_v1.txt file, but have different earthquake moment values due to the application of station corrections.

Each row in the text file contains the information for 1 located earthquake.

Columns:

1- Earthquake origin time in unix format
2- Label specifying the network code of the seismic network used
3- Latitude of earthquake
4- Longitude of earthquake
5- Depth of earthquake in km
6- Whether or not the earthquake depth was fixed: 0 if depth was free, 1 if depth was fixed
7- Horizontal location uncertainty in km
8- Vertical location uncertainty in km
9- Moment release of earthquake in dyne-cm
10- Moment magnitude of earthquake as calculated in Krauss et al. (2023)
11- Number of picked arrivals used to locate earthquake