Seismic Catalogue for Corbetti Volcano, Main Ethiopian Rift, Ethiopia

This dataset contains the locations and other pertinent information for 122 well-constrained seismic events that occurred on or near Corbetti between February 2016 and September 2017. These locations were derived from data collected on 37 broadband seismometers deployed as part of the RiftVolc project. The data were originally published in Lavayssière, A., et al. "Local seismicity near the actively deforming Corbetti volcano in the Main Ethiopian Rift." Journal of Volcanology and Geothermal Research (2019). https://doi.org/10.1016/j.jvolgeores.2019.06.008

This upload includes 3 data files. The first is a tab-delimited file named **Corbetti_catalog.txt** which contains the seismic catalogue for Corbetti, and environs; the file has the following columns:

YearMonthDay: 4-digit calendar year, 2-digit month and 2-digit day

HrMinSec: Time of the event in 24 hr convention

Latitude: earthquake latitude in decimal degrees

Latitude Error: error in the earthquake latitude in km

Longitude: earthquake longitude in decimal degrees

Longitude Error: error in the earthquake longitude in km

Depth: earthquake depth in km

Depth Error: error in the earthquake depth in km

Magnitude: Local Magnitude (M_L) of the event

The second file is called **Corbetti_velocity_model.txt** describes the newly calculated seismic velocity model for Corbetti volcano and environs. The file contains two columns of data:

Depth in km (positive below sea level)

Vp – the P wave velocity in km/s.

The third file, **focmecs_Corbetti.txt**, describes the fault parameters for 22 well defined focal mechanisms derived from the full dataset (see Lavayssière, A., et al. (2019) for more information). The file is formatted in the Aki and Richards convention

LON: earthquake longitude

LAT: earthquake latitude

DEPTH(km): earthquake depth

STRIKE: Fault strike

DIP: Fault dip

RAKE: rake of the fault

MAG: Earthquake magnitude (M_L)

PLON: Plotting longitude; set to 0 so that focal mechanism plots in the earthquake longitude given in the first column

PLAT: Plotting latitude; set to 0 so that focal mechanism plots in the earthquake latitude given in the second column.

EQ_NUMBER: As described in Lavayssière, A., et al. (2019)