This data set contains six grid files and one MATLAB code from Zheng et al. (2023).

Gravity Anomalies and Implications for Shallow Mantle Processes of the Western Cocos-Nazca Spreading Center. https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2022GL102133

The grids are displayed in this paper as follows.

(1) 105W95W1S5N_mba.grd -- mantle Bouguer anomaly calculated in this study (displayed in Fig. 1c).

(2) 105W95W1S5N_mba_ship_topo_global_FAA.grd -- Calculated mantle Bouguer anomaly using multibeam bathymetry and global free-air anomaly data (displayed in Fig. S1b).

(3) 105W95W1S5N_mba_global_topo_global_FAA.grd -- Calculated mantle Bouguer anomaly using global bathymetry and global free air anomaly data (displayed in Fig. S1c).

(4) 105W95W1S5N_thermal_1k.grd -- thermal effect caused by plate cooling (displayed in Fig. S2b).

(5) 105W95W1S5N_rmba_1k.grd -- residual mantle Bouguer anomaly (displayed in Fig. 2a).

(6) 105W95W1S5N_crust_1k.grd -- relative crustal thickness (displayed in Fig. 2b).

(7) fig4_filtered_model.m -- MATLAB code for producing filtered model in Fig. 4