This is a collection of navigation and gravity anomaly data obtained by 11 cruises of R/V Hakurei-maru No. 2, which were carried out by Geological Survey of Japan, AIST in 2000 to 2010. Processed one-minute interval data were obtained by gravity anomaly calculation for one-second interval raw gravity data, which were already released as an open-file report (Ishihara and Oda, 2021), application of a low-pass Butterworth filter with the cut-off period of 8 minutes, and leveling correction. The obtained processed data of each cruise are included in a file with its cruise name and the extension nga. See Ishihara and Oda (2022) for the details of the data processing. Table 1 shows the schedules and port calls of each cruise, while Table 2 shows gravimeter readings at ports. Figures 1-3 show the ship’s tracks of each cruise.

Data format: date (yyyymmdd)，time in UTC (hhmmss), latitude (˚), longitude (˚), gravity reading, gravity value (mGal), Eötvös correction (mGal) free-air anomaly (mGal), corrected free-air anomaly (mGal), distance (km), and line name. Missing corrected free-air anomaly data is expressed as 9999.9. As for cruises GH05 and GH07, particularly, line names are missing and no leveling correction was made.

Example:

20020806 110000 42.37438 143.71796 4662.8 980284.5 36.1 -96.4 -95.8 2143.566 120-1

20020806 110100 42.37317 143.72036 4662.5 980283.8 35.7 -97.0 -96.4 2143.805 120-1

20020806 110200 42.37199 143.72272 4662.0 980283.1 35.4 -97.6 -97.0 2144.039 120-1

20020806 110300 42.37080 143.72510 4661.5 980282.3 35.1 -98.3 -97.7 2144.274 120-1

20020806 110400 42.36965 143.72744 4660.9 980281.6 35.0 -98.9 -98.3 2144.506 120-1

20020806 110500 42.36848 143.72979 4660.2 980280.9 35.0 -99.4 -98.8 2144.739 120-1

References

Ishihara, T. and Oda, H. (2021) Gravity data collected by R/V Hakurei-maru No.2. *Open-file report of the Geological Survey of Japan*, *AIST* no.725.

Ishihara, T. and Oda, H. (2022) Preparation and release of gravity data collected by R/V Hakurei-maru No.2. *Bulletin of the Geological Survey of Japan*, **73**, 29-48.