

Terrain gravity correction using 50m mesh mean elevation data

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Terrain correction is the most time-consuming calculation in reduction of gravity observation data. Kanazawa University gravity group had been calculated terrain correction using 500m mean elevation mesh data provided by Geographical Survey Institute. Nowadays, the ability of workstations had much improved so that the calculation of terrain correction using more precise topographic data became possible. So we improved our terrain correction program to be capable of using 50m mean elevation mesh data. The new terrain correction program can also calculate effects from seafloor topography. The seafloor topography data is simulated by 500m mesh data which is provided by Hydrographic department, Japan Coast Gard. Expecting simple algorithm, and prespecting that the seafloor topography data will improved more presice in the future, we devided the 500m mesh data into 50m mesh data, and the program calculates terrain correction of land and seafloor topography at once.