Gravity anomalies around Kuchino-erabu volcano

Masao Komazawa[1]; Kajuro Nakamura[2]; Keigo Yamamoto[3]; Masato Iguchi[4]; Junpei Akamatsu[5]

[1] GSJ,AIST; [2] DPRI,Kyoto Univ.; [3] D.P.R.I., Kyoto Univ.; [4] SVO; [5] Disas. Prev. Res. Inst., Kyoto Univ.

Gravity survey was carried out in the Kuchino-erabu volcano, southwestern Japan, in 2000 and 2006. Three LaCoste gravimeters were used, and altitude values are based on DGPS, so Bouguer anomalies are calculated with good accuracy. The total number of new measurement points amounts to about 180. The precise survey area was in a volcanic cone, Furu-take, Shin-take and Yachi volcano, etc. From comparing some kinds of Bouguer anomalies of each assumed densities, the optimal as surface density is considered to be 2.2 - 2.3g/cm3, and the result is common about Japanese volcanoes. The residuals of the Bouguer anomalies of 2.3g/cm3 shows that the low anomalies are distributed about the above-mentioned volcanoes from south to north, but there is no conspicuous high density feature about the volcanic cone. The reason is that those volcanoes are covered wit low density volcanic ash or pyroclastcs.