Gravity Survey around the area of Furano Active Fault Zone,Central Hokkaido Area

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Gravity measurements have been performed on October and November around the Furano Active Fault Zone area.

Furano Active Fault Zone exists at the Furano basin area, Central Hokkaido, and would be active until now. Detailed survey of these faults has started by Hokkaido Local Goverment until 2002.

We carried out gravity survey (245 points) around this area and along seismic observation lines with Scintrex CG-3M gravimeters. We also used gravity data (50 points) measured by Hokkaido University. Finally, we can make a spatial distribution map and 2 profile maps.

We used triangulation station, bench mark and spot height for observation points, and also we used the rapid static mode of GPS surbey for unknown points.

To calculate Bouguer gravity anomaly, we assumed density of 2.67g/cm3 for terrain corrections (Yamamoto,2000) and Bouguer corrections (Hagiwara,1978).

From the spatial distribution map, we can find a steep horizontal gradient zone of gravity anomaly along the boundary of basin. This zone is generally correspond to active faults.

The detailed relationship between these active faults and gravity anomally is also discussed.