

## Absolute gravity change associated with volcanic earthquake of Iwate volcano revealed by precise ocean tidal loading correction

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Geographical Survey Institute have measured, 5 times, the absolute gravity by FG5 at Iwate volcano since August 1998. Two sets of the the measurement were conducted before and after the volcanic earthquake on September 3rd, 1998. In order to see the gravity change associated with the earthquake, we tested two sets of ocean tidal loading corrections. One is based on Schwiderski (1980) ocean tide model with 9 constituents, and the other is based on NAO.99 ocean tide model (Matsumoto et al., 2000) with 21 constituents. The latter loading correction reveals, more clearly, the gravity trend before the earthquake (+0.4microGal/day) and after the earthquake (-0.3microGal/day). This study shows the importance of precise ocean tidal loading correction for the precise geodetic measurement.