

## Ocean tide loading corrections for gravity measurements in and around Sakurajima volcano

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We detected the gravity signals of ocean tide origin by the FG5 absolute gravimeter at two stations in Sakurajima volcano, Southern Kyushu, Japan. The observed records and the theoretical ocean tides computed by using a program 'GOTIC2' agreed well with each other both in amplitude and in phase, indicating that the oceanic loading effects on gravity data can be predicted accurately in Sakurajima. We also found that the theoretical ocean tide has the amplitude of more than 50 microgal at the LaCoste station located close to the shore. By the correction of the effect for the LaCoste data, measurement errors were significantly reduced. It suggests that the accurate ocean tide corrections are indispensable even for the LaCoste data if the station is located nearshore.