

Rapid Inflation of Northeast Kozu Island Confirmed by Temporal Changes in Precise Gravity (Nov. 1998 - March 2000)

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Precise relative gravity measurements conducted in Kozu island during November 1998 to March 2000 reveal a decrease in gravity of a maximum -30 microgals per year centered on the northeast part of the island. The accuracy of our measurements by SCINTREX CG-3M gravity meter is 2-4 microgals. Assuming a point source of inflation (Mogi model), the depth and volumetric change are estimated to 2 km and up to 10^6 m^3 per year, respectively, based on GPS horizontal displacements. So this rapid inflation will be induced by very low density materials.