

Preliminary Tidal Analysis Based on the CG-5 AUTOGRAV Gravity Measurements at Lenkaran Station (Azerbaijan)

This research presents an analysis of gravimetric observations at the Lenkaran station (Azerbaijan) with coordinates: 38.733360N, 48.833724E. The station is located on the western seaside of the Caspian Sea. The distance of the site station from the seashore of the Caspian reaches 10 km. The tidal gravity observations were performed during more than two years (from July 2013 to December 2016). This is the first tidal analysis based on the gravity measurements for this location. Relative gravity oscillation observed by Scintrex CG-5 Autograv gravimeter was used for the tidal analysis. Analysis of this data was made using a PreAnalyse and ETERNA Analysis Program. Results give tidal parameters (amplitude and phase factor) for the main diurnal (M1, O1, P1, K1 and etc.) and (M2, S2, N2, K2 and etc.). The favorable concordance was revealed between observed and theoretical amplitudes for the daily waves Q1, O1, P1 and K1. In the observed data, there are also field fluctuations.

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