GRAVITY INFLUENCE ON SURVEY DIFFERENT HIGH USING LEVELLING METHOD  
(Case Studi Jakarta)

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Abstract

Measuring vertical different using method such as leveling, GPS observation, etc. Its have different vertical base, leveling using local MSL (Mean Sea Level) on near tide station as base mean while GPS must find undulation and using global MSL. Using gravity as correction for leveling.

In this research calculation orthometric high by using leveling and GPS observation. As vertical base is MSL from tide observation on Pondok Dayung tide station on June 2005. Using relative gravimetric survey to find orthometric correction.

The result Shown that to get orthometric high using leveling method is using gravity value as correction, from the process get orthometric correction in 1 line is -0.00256150 m and 2 line is -0.10136613 m. In tide observation shown MSL change cause different high like on NWP 60 almost 1 m different. From equal high value using leveling method and GPS method have different value although using undulation value as correction.

Keys Word : Levelling, Gravity, GPS, MSL, Undultion