

ABSTRAK

PERBANDINGAN GEOMETRIK BIDANG TANAH PENGUKURAN GNSS METODE *RTK-NTRIP MOBILE BASE*

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Pengukuran dan pemetaan kadastral mewajibkan untuk memenuhi kaidah-kaidah teknis pengukuran dan pemetaan. Agar bidang tanah yang diukur dan dipetakan dapat diketahui letak maupun batasnya diatas peta, serta dapat direkonstruksi batas – batasnya di lapangan apabila batas bidang tersebut rusak ataupun hilang. Pengukuran bidang tanah harus mengacu kepada titik-titik dasar teknik dinyatakan dalam orde 2, 3, dan 4 sebagaimana disebutkan dalam Pasal 13 ayat (3) PMNA/K.BPN No. 3 Tahun 1997 disebutkan bahwa pembuatan peta dasar pendaftaran dilaksanakan dengan mengikatkan ke titik dasar teknik nasional.

Proses perbandingan geometrik pengukuran batas bidang tanah dilakukan dengan dua kali pengukuran yaitu koordinat absolut dan koordinat TDT. Hasil pengukuran batas bidang tanah koordinat absolut dan koordinat TDT lalu diplot pada software AutoCAD, kemudian data hasil perhitungan pengukuran batas bidang tanah dibandingkan luas, bentuk dan posisinya.

Nilai hasil perhitungan perbandingan geometrik pengukuran bidang tanah pengukuran *GNSS* metode *RTK-NTRIP mobile base* teknik menghasilkan selisih pergeseran koordinat. Pada lokasi 1 pergeseran koordinat rata-rata 6,178 m, pergeseran koordinat pada lokasi 2 rata-rata 6,222 m, pergeseran koordinat pada lokasi 3 rata-rata 6,224 m, pergeseran koordinat pada lokasi 4 rata-rata 6,238 m, pergeseran koordinat pada lokasi 5 rata-rata 6,269 m. Sedangkan hasil perhitungan perbandingan lokasi 1 memiliki selisih luas rata-rata 0,596, perbandingan lokasi 2 memiliki selisih luas rata-rata -0,013, perbandingan lokasi 3 memiliki selisih luas rata-rata 0,304, perbandingan lokasi 4 memiliki selisih luas rata-rata 0,304, perbandingan lokasi 5 memiliki selisih luas rata-rata -0,595.

Kata Kunci : *GNSS* metode *RTK-NTRIP*, Absolut, Titik dasar teknik.

ABSTRACT

GEOMETRIC COMPARISON OF LAND PLANES GNSS MEASUREMENT RTK-NTRIP MOBILE BASE METHOD

By

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Cadastral measurement and mapping requires to meet the technical rules of measurement and mapping. So that the land plots measured and mapped can be known for their location and boundaries on the map, and can be reconstructed the boundaries in the field if the boundary of the field is damaged or lost. The measurement of land plots must refer to the basic points of engineering stated in order 2, 3, and 4 as mentioned in Article 13 paragraph (3) of PMNA / K.BPN No. 3 of 1997 it is stated that the creation of a registration base map is carried out by binding to the national engineering base point. The geometric comparison process of measuring the boundary of the land plane is carried out with two measurements, namely absolute coordinates and TDT coordinates. The results of measuring the boundaries of land plots of absolute coordinates and TDT coordinates are then plotted in AutoCAD software, then the data of the calculation results of measuring land plane boundaries compared to their area, shape and position. The value of the calculation of geometric comparison of measurements of ground planes GNSS measurement RTK-NTRIP mobile base produces the difference in coordinate shift. At location 1 the average coordinate shift is 6.178 m, the coordinate shift at location 2 is averaging 6.222 m, the coordinate shift at location 3 is averaging 6.224 m, the coordinate shift at location 4 is averaging 6.238 m, the coordinate shift at location 5 is 6.269 m on average. While the calculation results of location comparison 1 have an average area difference of 0.596, location comparison 2 has an average area difference of -0.013, location 3 comparison has an average area difference of 0.304, location comparison 4 has an average area difference of 0.304, location comparison 5 has an average area difference of -0.595.

Keywords : GNSS RTK-NTRIP method, Absolute, Basic point of technique.