

INTISARI

Dewasa ini proses pembangunan di negara kita terus meningkat, dengan peningkatan tersebut perlu adanya peta skala besar. Peta situasi dengan skala besar masih jarang dilakukan karena membutuhkan tenaga, waktu, dan biaya yang banyak. Namun adanya kegiatan pemetaan situasi dengan skala besar tentu akan sangat membantu pengembangan daerah tersebut

Pekerjaan pemetaan situasi diawali dengan pembuatan kerangka pemetaan meliputi pembuatan kerangka kontrol horizontal yang menggunakan alat *Total Station* Nikon DTM-322 yaitu orientasi lapangan dan pemasangan patok poligon, pengukuran sudut dan jarak antar titik poligon, pengukuran poligon cabang dan pengukuran azimuth. Perhitungan Poligon menggunakan metode *bowditch* dan pengukuran azimuth menggunakan metode azimuth ikatan. Pembuatan kerangka kontrol vertikal yang menggunakan alat sipat datar Leica meliputi pengukuran beda tinggi antar titik poligon dengan menggunakan metode sipat datar. Selanjutnya pengukuran detail situasi yang menggunakan alat *Total Station* dengan metode trigonometri yang mencakup detail planimetris dan detail elevasi.

Pengukuran Kerangka Kontrol Horizontal (KKH) dan Kerangka Kontrol Vertikal (KKV) pada kegiatan pemetaan situasi skala 1 : 500 berlokasi di Dusun Kalicangak RT 02 RW 01, Desa Beluk, Kecamatan Bayat, Kabupaten Klaten, provinsi Jawa Tengah telah memenuhi TOR (*Term of References*). Namun pada hasil uji peta manuskrip detail planimetris belum memenuhi TOR, sedangkan untuk uji elevasi sudah memenuhi TOR.

Kata kunci : pembangunan, pemetaan situasi, pengukuran, peta situasi, TOR.

ABSTRACT

Nowadays, the process of development in our country continues to increase, with the increase of the need for large-scale maps. Large-scale situation maps are still rarely because it requires energy, time, and cost. But the existence of mapping activities of the situation with a large scale will certainly help the development of the area.

Situation mapping begins with the creation of a basic mapping measurement that includes the creation of a horizontal control measurement which is using Total Station DTM-322 is field orientation, angle and distance measurements between points of polygon, branch polygon measurements and azimuth measurements. Polygon calculations using bowditch method and azimuth measurements using the bonding azimuth method. The creation of a vertical control measurement which is using Auto Level Leica includes measurement of the high difference between points of polygon by using the levelling method. For measurements of detail situations using Total Station with trigonometric methods that include planimetric details and elevation details.

Horizontal control measurement and vertical control measurement in situation mapping on a scale of 1: 500 which are located in Kalicangak Countryside RT 02 RW 01, Beluk Village, Bayat District, Klaten Regency, Central Java Province had comply the Term of References. Nevertheless, the result of planimetry of manuscript map had not comply the Term of References yet, while the result of elevation had comply the Term of References.

Keywords: development, situation mapping, measurement, situation map, Term of References.