

Tsukuba Dense Network GPS Observation campaign : Baseline Solution with Meteorological Correction on GPS Surveying

Kenji Mishima[1], Seiichi Shimada[2], Ryu Ohtani[3], Hajime Nakamura[4], Yoshinori Shoji[5], Tetsuya Iwabuchi[6], Akihiko Itagaki[7], Kevin Brown[8]

[1] APA, [2] NIED, [3] GSJ,

AIST, [4] MRI, [5] Third Lab of Forecast Dep., MRI, [6] JSPS (MRI), [7] Japan Weather Associ., [8] SIO

<http://www.sokugikyou.or.jp>

The GPS baseline solution undergoes influence by the weather. Therefore, it is expected that it makes weather forecast a precision from the view point of the meteorology. On the other hand, it is expected that it makes a base line solution is a precision, by making the parameter of base line analysis's weather revision clear from the situation having to do with geodesy.

APA carried out GPS observation in about 20km all sides around the Tsukuba city in the autumn in 2000 and the summer in 2001.

Regardless of the baseline analysis software of Bernese, Gipsy, Gamit for the academic and scientific software. It analyzed by TTC which is the latest baseline analysis software.

In the public surveying, GPS is most frequently used by the surveying for 1st order or 2nd order control point. the distance between these control points is about 1km.

It reports that the middle range baseline solution with meteorological correction and the public surveying.