

The relationship among the zenith delays, atmospheric gradients, and horizontal errors obtained from GPS analysis

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Miyazaki et al. (1998) reported that horizontal position errors significantly reduced by applying the tropospheric gradient estimation in the case when spatial

heterogeneity of water vapor can be approximated by a linear function. Here we report the results of Sep.1, 1996, in addition to that of July, 1996. We first estimated tropospheric gradients, and then compared them with the spatial derivatives of zenith delays. We also estimated the scaleheight of water vapor from these two quantities. The estimated scaleheight varies spatially within the range of 0 to 5m for most of regions.