

## Effects of the number of observational site on SBAS performance

# Yuichi Otsuka[1]; Tadahiko Ogawa[2]; Kazuaki Hoshino[3]; Keisuke Matsunaga[4]; Akinori Saito[5]

[1] STEL, Nagoya Univ.; [2] STE Lab., Nagoya Univ; [3] ENRI; [4] ENRI, IAI; [5] Dept. of Geophysics, Kyoto Univ.

The Satellite-Based Augmentation System (SBAS) broadcasts ionospheric delay corrections at 5 by 5 degree grid points. We need careful considerations of their performance in the case that the SBAS is applied to low-geomagnetic latitudes because the plasma structure of the ionosphere is more changeable than mid-latitudes. In order to investigate effect of increase in the number of observational site on their performance, we used the TEC (ionospheric delay) data derived from GPS observation by GPS Earth Observation Network (GEONET) of Geographical Survey Institute, Japan. The method developed by Otsuka et al. [2002] was used to remove instrumental biases inherent in the GPS satellite and receiver and obtain absolute value of TEC. In the present study, we investigate residuals in the planar fitting manner for the vertical ionospheric delay in the several cases that the number of observational site increases.