Evaluation of kinematic GPS positioning accuracy: (1) Different baseline length

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We evaluated the errors in the kinematic GPS positioning for long baselines. In the previous study, we showed that the position of a ROVER can be determined with the accuracy of less than 10 cm even for a baseline of 110 km when the coverage of satellites is high (PDOP<=2) (Sato et al , 2000, SSJ Fall Meeting). In this study, we made experiments of kinematic GPS positioning for 5 different lengths, 10, 20, 50, 110 and 250 km. The ROVER was located at Uji, Kyoto and eight 2-frequency-GPS receivers were used in this experiment. The comparison of accuracy in the solutions from the PNAV (kinematic GPS software)and static analyses and the effect of the baseline length on the accuracy of the kinematic GPS positioning will be discussed at the 2001 JEPS Joint Meeting.