

To estimate the daily and sub-daily regional ionospheric TEC model from GEONET observation

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Dual frequency phase observations at 1575.42 MHz and 1227.60 MHz of Global Positioning System (GPS) prove a possibility to detect the total electron content (TEC) perturbations with high precision above a super-dense network of GPS receivers. A method is discussed to estimate a regional TEC distributions above the region of Japan Islands, with the data obtained by the GPS receivers of the GPS Earth Observation Network (GEONET), which is belong to the Geographical Survey Institute (GSI) of Japan. Using the GPS phase observations of GEONET on August 3rd of 1999, the daily and subdaily TEC distribution maps have been obtained.