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PEM021-06

Room: Function Room A

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## GPS loss of lock caused by ionospheric disturbances

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National Institute of Information and Communications Technology (NICT) has been observed total electron content over Japan using quasi-realtime GPS data of GEONET for the purpose of monitoring ionospheric disturbances. In addition to the absolute total electron content (TEC) maps, we have developed two-dimensional maps of detrended TEC, rate of TEC change index (ROTI), and GPS loss of lock (LOL) over Japan since July 2009. In this presentation, we will introduce some of intense ionospheric disturbances which cause LOL on the GPS signal and degrade GPS positioning.

Keywords: ionosphere, GPS, total electron content, loss of lock