[포SE-40] Validation of GNSS TEC from NMSC GNSS Processing System

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National Meteorological Satellite Center(NMSC) of Korea Meteorological Administration(KMA) is collecting GNSS data in near-real time for about 80 GNSS stations operated by multiple agencies. (eg. National Geographic Information Institute (NGII), Korea Astronomy and Space Science Institute (KASI), DGNSS Central Office) Using these GNSS data, NMSC developed automatic Total Electron Contents(TEC) derivation system over the Korean peninsular every 1-hour based on single station data processing. We present the TEC result and validation of TEC using International GNSS Service(IGS) global TEC data for the case of quiet time and storm time. The future plans for the system improvement will be discussed.

[포SE-41] Space Weather Monitoring System for Geostationary Satellites and Polar Routes

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We have developed solar and space weather monitoring system for space weather users since 2007 as a project named 'Construction of Korea Space Weather Prediction Center'. In this presentation we will introduce space weather monitoring system for Geostationary Satellites and Polar Routes. These were developed for satisfying demands of space weather user groups.

'Space Weather Monitoring System for Geostationary Satellites' displays integrated space weather information on geostationary orbit such as magnetopause location, nowcast and forecast of space weather, cosmic ray count rate, number of meteors and x-ray solar flux. This system is developed for space weather customers who are managing satellite systems or using satellite information. In addition, this system provides space weather warning by SMS in which short message is delivered to users' cell phones when space weather parameters reach a critical value.

'Space Weather Monitoring System for Polar Routes' was developed for the commercial airline companies operating polar routes. This provides D-region and polar cap absorption map, aurora and radiation particle distribution, nowcast and forecast of space weather, proton flux, Kp index and so on.