Development of Monitoring System with GNSS RO Data for Meteorological Utilization and NWP Model

Jae-Gwan Kim, Chu-Yong Chung, and Seon-Kyun Baek

National Meteorological Satellite Center of KMA

kimjgwan@korea.kr

National Meteorological Satellite Center (NMSC) of Korea Meteorological Administration (KMA) has been supporting satellite data to Numerical Weather Prediction (NWP) modeling center of KMA for data assimilation since 2011. NMSC provide not only meteorological products of satellite but also ground and space based GNSS data for NWP model. We have developed monitoring system for GNSS Radio Occultation (RO) data of Korea Multi-Purpose Satellite (KOMPSAT)-5 to monitor acquisition and to analyze data before transmission to NWP system. We analyze RO data for meteorological utilization such as water vapor information using this system. We are also studying about RO data preprocessing for NWP application with calibration method because of better understanding of GNSS RO data assimilation and of developing satellite with GNSS RO receiver onboard.