

## An Experiment of Real-time Water Vapor Analysis using RTKLIB with MADOCA

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We introduce the current status of experiment of real-time water vapor analysis using Global Navigation Satellite System (GNSS), represented by GPS which is mainly conducted in the Meteorological Research Institute (MRI) of the Japan Meteorological Agency (JMA), Japan. It should be noted that we are using the real-time satellite orbit information that has been analyzed by MADOCA which has been developed by Japan Aerospace Exploration Agency (JAXA). The orbit information of MADOCA includes the correction information of GPS, GLONASS, and QZSS which are observed in the MGM-Net that is an observation network covering all around the world. So far, in the real-time analysis using the RTKLIB software with MADOCA orbit correction, good agreement with radio-sonde observations was obtained. The results clearly show enough potential of this experimental configuration to contribute to the weather forecast if some problems are solved.

Keywords: GNSS, Water vapor remote sensing