

MONITORING THE JMR WITH TERRESTRIAL GPS MEASUREMENTS OF ZENITH TROPOSPHERIC DELAY

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Zenith troposphere content can be estimated using data from terrestrial Global Positioning System (GPS) receivers. This capability is used to independently monitor the wet troposphere path delay measurements from the Jason-1 Microwave Radiometer. Zenith troposphere estimates from a globally distributed set of GPS stations that are in close proximity of oceans and the Jason-1 ground track are compared with the JMR wet troposphere delay measurements. Tests are performed to determine if GPS range and phase calibration maps improve the zenith troposphere estimates from the GPS sites, and to determine if they improve the accuracy of the comparisons. In addition, intercomparisons of the wet path delay that is measured by each of the three noise diodes from the JMR are shown and provide a measure of the general stability of the instrument itself.