Near Real-Time GPS Sensing of Atmospheric Water Vapor (1997)

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Near real-time GPS sensing of atmospheric water vapor

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Abstract. We describe sensing of atmospheric column water vapor in near real-time using the Global Positioning System (GPS). We use predicted GPS orbits for automated computation of vertical column water vapor within 30 minutes of GPS data collection. Based on a 4 month comparison, near real-time GPS column water vapor agrees with radiosondes and radiometers within 2 mm rms. Our near real-time column water vapor data are posted hourly at www.unavco.ucar.edu. They are available for assimilation in numerical weather models and for other applications.

[See attached .pdf file for more.]

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