

Data Quality Issues Affecting Current GPS RO Retrievals and Implications for Future Receiver Development

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The accuracy and precision GPS RO retrievals in the upper troposphere to lower stratosphere have been well-established through intersatellite comparisons, comparisons with radiosondes, and theoretical analyses. However, error characterizations in other altitudes are less certain. In this talk, we will provide an overview of the GPS RO data processing at JPL and examine some of the issues that affect retrieval accuracy of refractivity in the lower troposphere and middle to upper stratosphere. Implications for future missions such as CLARREO will be discussed.