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## GPSRO CLIMATE APPLICATIONS WORKSHOP

March 17 - 18 2008  
Boulder, CO

**Questions about the potential value of GPS-RO to the climate observing system and which GPS-RO data are truly benchmark**

A COSMIC breakfast meeting was held at the AMS Annual Meeting, January 22, 2008 in New Orleans.

The potential value of GPS-RO to the climate observing system was addressed in a presentation:

[Construction of Consistent Temperature Records using Global Positioning System Radio Occultation Data and Microwave Sounding Measurements by Shu-Peng Ho et al.](#)

In response to Dr. Jay Fein's request, and based on above presentation, Drs. Dian Seidel, Rick Rosen, Tom Peterson, Bill Murray, have tried to articulate a few key questions regarding the potential value of GPS-RO observations for climate and to describe analyses that might answer these questions. The questions particularly address the claim that GPS-RO constitutes a benchmark observing system. Quantitative estimates of the various terms in the overall error budget for observations at a given time and location, as opposed to error estimates based on averages of large samples covering wide space and time scales are requested.

Please add your comments for each issue listed below. Additional inputs, comments, or more issues can also be added below.

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[RO-Pedia The Radio Occultation Encyclopedia](#)

[Issue 1 - Comparability of data from different COSMIC satellites](#)

[Issue 2 - Comparability of CHAMP and COSMIC and other GPS satellite systems](#)

[Issue 3 - Reproducibility of refractivity results](#)

[Issue 4 - Reproducibility of temperature results](#)

[Issue 5 - Impact of assumptions on both refractivity and retrieved profiles](#)

[Issue 6 - Observed refractivity \(or delay\) vs. retrieved meteorological profiles](#)

[Issue 7 - Profiling of the lower troposphere](#)

[Issue 8 - Impact of observations scattered across space and time](#)

[Issue 9 - Potential aliasing by water vapor changes in GPS-RO temperature time series](#)

[Issue 10 - Water vapor retrievals](#)

[Issue 11 - Effect of anthropogenic ionospheric changes on GPSRO stratospheric and tropospheric data](#)

[General response for all issues](#)

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[Workshop Agenda](#)

[Pictures from Workshop - March 17, 2008 Boulder, CO](#)

[Orchid Pavilion Restaurant - Directions](#)

[Announcement to Workshop Participants](#)

[Additional inputs, comments and related information](#)

[Suggested Reading List](#)

Attendees

