

Second GPS RO Data Users' Workshop Agenda

National Conference Center, Lansdowne, Virginia

<http://www.cosmic.ucar.edu/gpsro2/>

Monday, 22 August 2005

07:30 - 08:30 Registration

Opening Session (Chair: Jim Yoe)

08:30 - 08:35	Gary Davis, NESDIS	Welcome remark
08:35 - 08:50	Rick Anthes, UCAR	Toward an operational GPS RO constellation -- COSMIC-II
08:50 - 09:05	Mitch Goldberg, NESDIS	Use of GPS RO in climate monitoring
09:05 - 09:20	Tim Fuller-Rowell, NOAA/SEC	Use of GPS RO in space weather applications and ionospheric research
09:20 - 09:35	John LeMarshall, JCSDA	Use of GPS RO in operational NWP
09:35 - 09:40	Jim Yoe, NESDIS	Logistic announcement

Session I : Mission Status Report (Chair: Jim Yoe)

09:40 - 10:00 Bill Kuo, UCAR FORMOSAT-3/COSMIC status report

10:00 - 10:20 Coffee Break

10:20 - 10:40	TBA, Saab-Ericsson	GRAS on MetOp: GNSS Receiver for Atmospheric Sounding
10:40 - 11:00	Jens Wickert, GFZ	GPS-based atmospheric sounding with CHAMP: Recent results

Session II : Recent Advances in RO Techniques (Chair: Jens Wickert)

11:00 - 11:30	Tom Meehan, JPL	Open loop processing of rising occultation from SAC-C
11:30 - 12:00	Sergey Sokolovskiy, UCAR	Inversion of open loop radio occultation signals at CDAAC

12:00 - 13:00 Lunch Break

Session III : Retrieval of Geophysical Parameters (Chair: Jens Wickert)

13:00 - 13:30	Chris Rocken, UCAR	Status of COSMIC Data Analysis and Archive Center (CDAAC)
13:30 - 13:50	Chi Ao, JPL	Status of GPS radio occultation data processing at JPL
13:50 - 14:10	Martin Sørensen, DMI	GRAS SAF radio occultation processing center
14:10 - 14:30	Axel von Engel, UKMO	The Radio Occultation Processing Package (ROPP)

14:30 - 15:00 Open Discussion on Operational GPS RO data processing and open loop tracking

15:00 - 15:20 Coffee Break

Session IV : Poster Session (Chair: Rob Kursinski)

15:20 - 16:00 Poster Introduction (5 min for each poster; each presenter should prepare three slides to summarize the results)

16:00 - 18:00 Poster Sessions (combined with ice breaker)

Odile De La Beaujardiere, AFRL	Predicting ionospheric densities and scintillation with the communication/navigation outage forecasting system (C/NOFS) mission
Shu-Ya Chen, NCAR	Estimation of observational errors of GPS radio occultation soundings
Yong-Run Guo, NCAR	Assimilation of GPS refractivity data from CHAMP with WRF 3D-Var for Typhoon Djuan
Ben Ho, UCAR	Improvement of the temperature and moisture retrievals in the tropospheric using AIRS and GPS RO measurements
Ching-Yuang Huang, NCU	Impact of assimilated GPS occultation refractivity on severe weather predictions in the vicinity of Taiwan
Hui Liu, UCAR	Exploring the roles of multivariate forecast error co-variances in assimilation of GPS RO data in the middle and lower troposphere
Feiqin Xie, U of Arizona	Reconstruction of the marine boundary layer refractivity in the presence of super refraction
Xiaoyan Zhang, NCAR	Assimilation of GPS refractivity and other satellite data for hurricane prediction

Tuesday, 23 August 2005

Session V : Data Quality Control and Real-time Data Distribution (Chair: Sean Healy)

08:30 - 09:00 Martin Lohmann, UCAR/NESDIS Dynamic error estimation for tropospheric radio occultation measurements
09:00 - 09:30 Jim Yoe, NESDIS Data processing and redistribution of GPS RO data at NESDIS

09:30 - 10:00 Open Discussion on GPS RO data QC and data pipe testing

10:00 - 10:20 *Coffee Break*

Session VI : GPS RO Data Assimilation and Impact Studies (Chair: Ching-Yuang Huang)

10:20 - 10:50 Lidia Cucurull, UCAR/JCSDA Toward the operational use of GPS RO observations at NOAA: Evaluation of the forward operators

10:50 - 11:20 Sean Healy, ECMWF Forecast impact experiments with CHAMP RO measurements

11:20 - 11:50 Josep M. Aparicio, Met. S. Can. RO impact studies at the Meteorological Service of Canada

11:50 - 13:00 *Lunch Break*

13:00 - 13:30 Eiji Ozawa, JMA Comparison of refractivity and bending angle assimilation using JMA GSM 3D-Var experiment system

13:30 - 14:40 Open Discussion on Data Assimilation and Impact Studies (including posters)

14:40 - 15:00 *Coffee Break*

Session VII : Climate Applications of GPS Radio Occultation (Chair: Tom Yunck)

15:00 - 15:30 Rob Kursinski, U of Arizona Using GPS RO to determine the probability density of free tropospheric relative humidity and constrain how it is controlled

15:30 - 15:50 Andrea Steiner, Graz University Validation of stratospheric temperatures in ECMWF analysis with CHAMP RO climatologies

15:50 - 16:10 Eva Borbas, UW/CIMSS Using GPS/RO refractivities to improve high spectral resolution infrared retrievals

16:10 - 16:30 Grace Peng, Aerospace Corp. The impact of clouds on GPS radio refractivity signals in the upper troposphere

16:30 - 17:00 Open Discussion on Climate Applications

Wednesday, 24 August 2005

Session VIII : Space Weather Applications of GPS Radio Occultation (Chair: Tim Fuller-Rowell)

08:30 - 09:00 Stig Syndergaard, UCAR Status and plans at CDAAC for providing near real-time ionospheric data products from COSMIC

09:00 - 09:30 Tony Mannucci, JPL Assimilating COSMIC data into the Global Assimilative Ionosphere Model

09:30 - 09:50 Rebecca Bishop, Aerospace C. GPS occultation studies of the lower ionosphere: Current investigations and future roles for C/NOFS and COSMIC sensors

09:50 - 10:20 Open Discussion on Space Weather Investigation

10:20 - 10:40 *Coffee Break*

Session IX : Wrap-up Session (Chairs: Jim Yoe and Bill Kuo)

10:40 - 11:10 Tom Yunck, JPL Outlook for GPS RO sensing technology

11:10 - 12:00 Wrap-up Discussions for the Workshop and Action Items

12:00 Workshop adjourn