The primary objective of the International Conference on GPS Radio Occultation (ICGPSRO) is to promote and appeal more GPS RO applications to the meteorology, climate, and space weather scientists and the related research and application community. The 1st ICGPSRO has been inaugurated and successfully conducted in 2011, the ICGPSRO is intended to be held in Taiwan in parallel with the continuing FORMOSAT-3 / COSMIC and the upcoming FORMOSAT-7 / COSMIC-2 Data Users Workshop. The 3rd ICGPSRO will be held in conjunction with the 10th FORMOSAT-3 / COSMIC Launch Anniversary Celebration and the FORMOSAT-7 / COSMIC-2 Satellite Readiness Status Review for the first Launch in 2016 Q3.

FORMOSAT-3 / COSMIC is a joint Taiwan/ U.S. science mission for weather, climate, space weather and geodetic research. The FORMOSAT-3 / COSMIC constellation satellites were successfully launched on 15 April 2006. The GPS-RO data have already demonstrated their value for operational weather forecasting, hurricane forecasting, and investigations of the atmospheric boundary layer. The GPS RO data also have been proven to be of great potential benefit with unprecedented accuracy to climate studies due to their demonstrated high precision and global and diurnal sampling coverage. The data have been used extensively to test ionospheric models and their use in operational space weather models is under development. Currently FORMOSAT-3 / COSMIC is providing ~ 1200 daily RO profiles in the neutral atmosphere, ~1000 daily electron density profiles even after near more than 9 years performance in orbit. Both CDAAC (COSMIC Data Analysis and Archival Center ) in the U.S. and TACC (Taiwan Analysis Center for COSMIC) in Taiwan have been processing the GPS RO data in near real time, and > 90 percent of RO profiles are delivered to operational weather centers within 3 hours of observation. The values of utilizing the FORMOSAT-3 / COSMIC GPS RO data have been demonstrated to be eminent among the worldwide weather and space weather communities. In viewing the potential greater societal impacts and continuing the supply of the critical RO data, NSPO and NOAA along with many other key U.S. agencies have jointly implemented a collaboration agreement in 2011 for a greater RO constellation, FORMOSAT-7 / COSMIC-2, a high-reliability next generation follow-on system, to replace the degrading performance of the FORMOSAT-3 / COSMIC satellite constellation system. NSPO and NOAA are pleased to announce that the first set of six (6)
FORMOSAT-7 / COSMIC-2 satellites will be ready for the launch in 2016 Q3, the readiness status will be updated during the 3rd ICGPSRO.

The 3rd ICGPSRO will be held primarily to continue the ICGPSRO Objectives discussion as shown below. In addition, the 3rd ICGPSRO will be held in conjunction with the celebration of the FORMOSAT-3 / COSMIC 10th Launch Anniversary, a remarkable mission that has extended into a semi-operational constellation from an originally intended as a 2-year experimental mission, and the readiness review of the greater constellation implementation of FORMOSAT-7 / COSMIC-2 and its satellite launch in 2016 Q3. The worldwide RO interested researchers, operators, and system providers are encouraged and warmly welcome to join the 3rd ICGPSRO in Taipei, Taiwan.

ICGPSRO Objectives:

- Dialogue between data providers and data users
- Update the user community on the status of the mission
- Status of CDAAC data processing and data availability
- Scientific investigations with FORMOSAT-3 / COSMIC data
- Data validation experiments
- Comparison with other sensors - including other RO missions (CHAMP, SAC-C, GRACE, TerraSAR-X, METOP/GRAS, TechSat-21, TanDEM-X, OCEANSAT-2)
- Status of Precise Orbit Determination and Excess Atmospheric Phase Processing - Algorithm improvements and validation studies
- GPS RO retrieval improvements
- Data assimilation into numerical models - Impact studies from NCEP, ECMWF, UKMO and other leading weather centers
- Climate studies with RO data
- Use of the data in ionospheric models - early operational tests
- Future plans for validation experiments, campaigns, or other projects in the neutral atmosphere and ionosphere
- Remote Sensing of Ocean, Ice and Land Surfaces Using Bistatically Scattered GNSS Signals from Low Earth Orbit Spacecraft or Aircraft
- GNSS-RO Observing System Simulation Experiments (OSSE)
ICGPSRO Topical Areas:

Scientific sessions will cover all topical areas and associated topics as follows:

- Occultation methodology in general (math-phys basis, generic aspects): mathematical-physical basis of occultation sounding; generic aspects of the forward problem (signal propagation modeling); generic aspects of the inversion problem (geophysical retrieval algorithms); occultation data assimilation (into dynamical and chemical models); commonalities, differences, and synergies of specific methods; combined use of specific methods.
- Use of occultation data in atmospheric physics, meteorology and NWP: atmospheric process studies (e.g., gravity waves, tropo-/stratosphere exchange, ozone chemistry, aerosol and cloud physics); operational meteorology (weather forecasting, atmospheric analyses).
- Use of occultation data in climate monitoring and research: tropo-/strato-/mesospheric monitoring of climatic variability and change; global climatology algorithms and products (e.g., temperature, water vapor, ozone, aerosol climatologies); climate model validation and improvement; anthropogenic climate change detection and attribution; climate process studies (e.g., on climate feedbacks, tropopause changes, external climate forcings).
- Specific occultation methods (GNSS, LEO-crosslink, stellar, solar/lunar): past, current, and planned missions and sensors; feasibility, sensitivity, and performance studies; occultation data analysis chains; data validation studies.
- Occultations in ionosphere and planetary science: occultations in ionosphere and space weather research, planetary occultations, and the future of planetary occultation science.
- Remote Sensing of Ocean, Ice and Land Surfaces Using Bistatically Scattered GNSS Signals from Low Earth Orbit Spacecraft or Aircraft
- GNSS-RO Observing System Simulation Experiments (OSSE)
- Current and future missions (FORMOSAT-7/COSMIC-2, Spanish PAZ mission, TanDEM-X, ): past, current, and planned missions and sensors;

Should the response of the community indicate a need to allow also for further contributions on other related topics, dedicated session(s) or poster session will be allocated to these topics.

ICGPSRO Participants:

We invite participants that have used or plan to use data from the current FORMOSAT-3 / COSMIC mission and the near future FORMOSAT-7 / COSMIC-2 mission along with other RO related missions to...
contribute presentations or posters to this conference. The success of the RO mission depends on broad participation from the weather science community. By April 2015 we have > 2693 registered FORMOSAT-3 / COSMIC data users in 74 countries and we are looking forward to understanding their uses of the data and to feedback that will help us improve the RO data products. We will also invite some profound keynote speakers to provide their observations and reviews on the RO mission accomplishments and its future perspectives.

The 3\textsuperscript{rd} ICGPSRO is sponsored by:

- National Space Organization (NSPO), Taiwan
- National Applied Research Laboratories (NARL), Taiwan
- Ministry of Science and Technology (MOST), Taiwan
- National Oceanic and Atmospheric Administration (NOAA), U.S.A.
- University Corporation for Atmospheric Research (UCAR), U.S.A.

Important Dates toward the 2016 ICGPSRO:

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<th>Date</th>
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<tr>
<td>July 27, 2015</td>
<td>1\textsuperscript{st} Announcement for 2016 ICGPSRO and Call for Papers</td>
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<tr>
<td>August 18, 2015</td>
<td>First Local Program Committee Meeting</td>
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<tr>
<td>September 22, 2015</td>
<td>2\textsuperscript{nd} Announcement for 2016 ICGPSRO and Call for Papers</td>
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<tr>
<td>November 24, 2015</td>
<td>Second Local Program Committee Meeting</td>
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<td>December 29, 2015</td>
<td>Final Call for Papers</td>
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<td>January 22, 2016</td>
<td>Deadline for Submission of Abstracts</td>
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<td>January 26, 2016</td>
<td>Third Local Program Committee Meeting</td>
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<td>February 2, 2016</td>
<td>Acceptance of Abstract Notifications to All Authors Completed</td>
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<td>February 5, 2016</td>
<td>Deadline for On-Line Pre-Registration</td>
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<td>February 9, 2016</td>
<td>Draft Scientific Program Posted to Website</td>
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<tr>
<td>March 2, 2016</td>
<td>Final Scientific Program Posted to Website</td>
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<tr>
<td>March 9 ~ 11, 2016</td>
<td>3\textsuperscript{rd} ICGPSRO 2016 at Taipei, Taiwan</td>
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ICGPSRO Registration:

The abstracts must be received by January 22, 2016 in order to be included in the ICGPSRO proceedings distributed at the event. The On-Line Pre-Registration is February 5, 2016.

The Cost to Participating ICGPSRO and TGA:

US $ 50.00 or NT $ 1,500 if the registration is completed before 02 / 05 / 2016.
US $ 100.00 or NT $3,000 if the registration is completed after 02 / 05 / 2016.
All fees are collected in cash of the US and NT currencies only on site at the conference venue.

ICGPSRO Dates:
The 3rd ICGPSRO 2016 will be held Wednesday through Friday, 09-11 March, 2016.

Workshop Location:
Howard International House, Taipei, Taiwan

★ Tel: +86-2-83691155
★ Fax: +86-2-83691177
★ Address: 30 Shinsheng South Road Sec. 3, Taipei Taiwan
★ http://intl-house.howard-hotels.com/
Other Hotels: *

- Leader Hotel, Taipei
- Shangri-La's Far Eastern Plaza, Taipei
- Grand Hyatt, Taipei

Local Transportation to the Workshop Location:
Participants may take taxi or the convenient Taipei City public transportation MRT (Metro Rapid Transit).
MRT: Taipower Building Station - Exit No. 2, turn left outside station and walk along ShinHai Road to Shinsheng South Road and turn left to the Hotel (10-15 minutes' walk)

International Travel:
Participants are asked to make their own international travel arrangements to Taipei International Airport (TPE). Please contact Nick Yen at +886-3-578-4208 ext. 1053 with any questions or further assistance.