



International Committee on
Global Navigation Satellite Systems

AGENDA

Third Meeting of the International Committee on Global Navigation Satellite Systems (ICG)

**Hosted by the
United States of America**

**Pasadena, California
December 8 – 12, 2008**

Sunday, December 7

16:00 – 18:00

Registration, 2nd Floor Westin Hotel Pasadena

18:00

FIRST SESSION OF PROVIDERS' FORUM

Attended by only the Providers. The primary purpose is to discuss the proposed Providers Forum Terms of Reference, review the agenda and meeting procedures for ICG-3, draft recommendations to the ICG from the Working Groups and to develop response or suggest amendments to the draft recommendations, and address any other business as required.

San Marino Room

Monday through Wednesday, December 8–10

9:00 – 17:00

GNSS EXHIBITS

Plaza room

Sunday through noon Friday, December 7–12

ICG3 BUSINESS OFFICE

Santa Rosa Room

ICG3 INTERNET CAFE

Sierra Bonita Room

Monday, December 8

08:00 **On-site Registration**

09:00 – 14:30 **FIRST PLENARY SESSION OF THE ICG**

Attended by all. The primary purpose is for Providers to present the status and future plans for their systems, and for associate members and observers to also provide updates. All presenters will identify issues for discussion in the ICG and/or Working Groups

Fountain Ballroom, all day

09:00 **Welcome/Opening Remarks**

09:00 ICG-3 Chair, *Mr. Kenneth HODGKINS, Director, Office Of Space And Advanced Technology, U.S. State Department*

09:10 NASA, Jet Propulsion Laboratory, California Institute of Technology, *Dr. Charles ELACHI, Director*

09 :20 United Nations Office for Outer Space Affairs, *Dr. Mazlan OTHMAN, Director*

09:30 **Keynote Presentation**

09:30 Looking Ahead for GPtS, *Prof. Brad PARKINSON, Stanford University*

Presentation by ICG Secretariat

09:50 ICG 2008 activities, *Ms. Sharafat Gadimova, UNOOSA*

10:00 **Adoption of Agenda**

10:10 **Coffee Break**

10:40 **Providers: System and Service Updates**

U.S. Space-Based PNT Policy and Systems Update, *Mr. Mike SHAW, Director, U.S. National Coordination Office for Positioning, Navigation, and Timing; David GOLDSTEIN, USAF; Leo ELDREDGE, FAA; and John MERRILL, DHS*

GLOBAL Navigation Satellite System (GLONASS) and Wide-Area System of Differential Corrections and Monitoring (SDCM), *Mr. Sergey REVNIVYKH, Roscosmos, Russian Federation*

European Satellite Navigation System (Galileo) and European Geostationary Navigation Overlay Services (EGNOS), *Mr. Paul VERHOEF, Galileo Unit, European Community*

Group Photo, just prior to lunch

12:40 ***Lunch hosted by Lockheed Martin***

13:45 **Providers: System and Service Updates**

COMPASS/BeiDou, *Ms. Jun LU, China Satellite Navigation Project Center, China*

GAGAN and IRNSS, *Dr. Suresh KIBE, Indian Space Research Organization, India*

Current Status of Quasi-Zenith Satellite System Development, *Mr. Koji TERADA, Japan Aerospace Exploration Agency, Japan*

15:40 ***Coffee Break***

16:00 **Presentations by Members, Associate Members and Observers on Matters of Interest to ICG**

Attended by all. Opportunity for Associate Members and Observers to present recent developments in their organizations and associations with regard to GNSS services and applications

Dr. Mario CAPORALE, Italian Space Agency

International GNSS Service & ICG: Status Update, *Prof. John DOW, IGS*

The economic benefits of precise positioning in agriculture, construction and mining, *Mr. Matt HIGGINS, FIG*

International Association of Institute of Navigation - Contribution to International Navigation, *Dr. Elizabeth KLAFFENNBOECK, IAIN*

17:00 **ADJOURN**

18:00 **Welcoming Reception hosted by Trimble Navigation Pasadena Jazz Institute, within 5 minute walking distance from meeting venue, see accompanying map.**

Tuesday, December 9

Fountain Ballroom, all day

09:00 – 10:30

Presentations by Members, Associate Members and Observers on Matters of Interest to ICG, continued

Nigerian GNSS Activities, *Dr. Jerry Sonny UGOKWE, Permanent Mission of Nigeria to the United Nations, Austria*

Country report on Status of GNSS Infrastructure and Applications, *Dr. Mustafa DIN SUBARI, National Space Agency of Malaysia*

EUPOS status and future plans, *Mr. Gerd ROSENTHAL, EUPOS*

COSPAR and ICG, *Dr. Petrus VISSER, COSPAR*

AFREF and TRIGNET, *Mr. Richard WONNACOT, AFREF, IAG/IGS*

European project HARRISON, *Dr. Luigi BRAGAGNINI, Director of Consortium Torino Time, Italy*

10:30

Coffee Break

11:00

Science and Innovative GNSS Applications: Invited Presentations

11:00

Automobile Services, *Mr. Tim NIXON, ONSTAR by General Motors*

11:20

Earthscope, *Dr. Kaye SHEDLOCK, U.S. National Science Foundation*

11:40

GNSS Meteorology and Satellite Radio Occultation, *Dr. Chris ROCKEN, University Consortium for Atmospheric Research*

12:00

GPS Applications in Aviation, *Captain Joe BURNS, United Airlines*

12:20

Cutting Edge Science Applications, *Dr. Steve LICHTEN, JPL/Caltech*

12:45

Lunch hosted by Rockwell Collins

14:00

Industry-focused presentations, ICG3 Meeting Supporters

14:00

Dr. Javad ASHJAEE, Javad GNSS

14:20

User-driven Benefits in a World of Multiple GNSS, *Dr. Stuart RILEY, Trimble Navigation*

14:40	Location Awareness, <i>Mr. Greg TURETSKY, SiRF</i>
10 min	GNSS in the news & ICG, <i>Mr. Glen GIBBONS, InsideGNSS Magazine</i>
10 min	GNSS in the news & ICG, <i>Mr. Don Jewel, GPS World Magazine</i>
	<i>Others to be confirmed</i>
15:40	<i>Coffee Break</i>
16:00	GNSS Science and Technology Applications
16:00	Improving GNSS for Future Natural Disaster Reduction: Earthquakes & Tsunamis, <i>Dr. Kenneth HUDNUT, US Geological Survey, USA</i>
16:15	Space Weather, <i>Dr. Jonathan MAKELA, University of Illinois, USA</i>
16:30	GNSS signals use on a mission to moon, <i>Prof. Giovanni PALMERINI, University of Rome, Italy</i>
16:45	The integration of SatNav/SatCom technologies for environmental monitoring and management of emergencies, <i>Prof. Raffaella CEFALO, University of Trieste, Italy</i>
17:00	COMPASS Application in the Sichuan Earthquake Relief, <i>Ms. Tang Jing, China National Administration of GNSS and Applications, China</i>
17:15	COMPASS – A New Method on Marine Fishery Ship Security and Disaster Relief and Rescue, <i>Mr. Hu GANG, Beijing BDStar Navigation Co., China</i>
17:30	The Successful Application of COMPASS System in Three Gorges SCADA Project, <i>Mr. Linlin SUN, China Top Communication Co. Ltd., China</i>
17:45	IMES, Proposal for New Indoor Positioning System, <i>Dinesh MANANDHAR, GNSS Technologies. Inc., Japan</i>
18:00	Adjourn

Wednesday, December 10

09:00 – 17:30

WORKING GROUP MEETINGS

All Are Welcome To Attend Working Group Meetings.

Fountain Ballroom, all day

09:00

WG A – Compatibility and interoperability

*Chairs: Mr. David TURNER, USA and Mr. Sergey REVNIVYKH,
Russian Federation*

10:30

Coffee Break

11:00

WG C – Information Dissemination

Chairs: Mr. Hans HAUBOLD and Ms. Sharafat GADIMOVA, UN OOSA

Presentations and Discussions

Dr. Sergio CAMACHO, CRECTEALC, Mexico

*Educational Tools for GNSS, Prof. Letizia LO PRESTI, Politecnico di
Torino, Italy*

GNSS Curriculum Development, Prof. Chris RIZOS, Australia

GNSS Glossary Development, Mr. Thomas vonDEAK, USA

APEC GNSS Implementation Team, Ms. Karen Van Dyke, USA

*Youth Promoting GNSS Cooperation and Education, Ms. Stephanie WAN,
YGNSS*

*UN Regional Centres for Space Science and Technology Education and
ICG Information Centres*

ICG 2009 Activities

ICG Information Portal

GNSS curriculum

Other Matters

12:30

Lunch hosted by Northrop Grumman

14:00

WG D – Interactions with national, regional authorities and international organizations

Chairs: Ms. Ruth NEILAN, IAG, Prof. John DOW, IGS, and Mr. Matt HIGGINS, FIG

IAG Components Supporting ICG Goals. *Prof. Chris RIZOS, IAG*

Satellite Laser Retro-Reflectors, Recommended International Standards, *Dr. Michael PEARLMAN, IAG/IERS/ILRS*

International Terrestrial Reference Frame as a Global Standard, *Prof. John DOW, IGS and Dr. E. Felicitas Arias, BIPM, for Prof. Claude Boucher IAG/IGS/IERS*

EUREF – Example of Regional Reference Frame Realization – *Dr. Johannes Ihde, IAG/IERS/EUREF*

SIRGAS Comments and Report – *Ms. Ruth Neilan, IAG/IGS/SIRGAS*

AFREF Comments - *Mr. Richard Wonnacott, IAG/IGS/IERS/AFREF*

Discussion

15:30

Coffee Break

16:00

WG B – Enhancement of performance of GNSS services

Chair: Dr. Suresh KIBE, India Space Research Organization

17:30

Adjourn

Exhibits Close

18:30

ICG Dinner hosted by Javad GNSS

Café Santorini – Rococo Room, *Walking distance from hotels and meeting venue, see accompanying map.*

Thursday, December 11

09:00 – 10:30

WORKING GROUP PARALLEL SESSIONS

To prepare conclusions and recommendations for full committee consideration.

*Fountain Ballroom WG A, San Gabriel WG B ,
San Pasqual WG C, San Marino WG D*

10:30

Coffee Break

11:00 – 12:30

SECOND PLENARY SESSION OF THE ICG

Attended by all. The primary purpose is for Working Groups to present results of their meetings on Wednesday, December 10 or any meetings held since the Second Meeting of the ICG. Presentations will include any draft recommendations to the ICG.

Fountain Ballroom

11:00

Presentation by WG A and Discussion

11:20

Presentation by WG B and Discussion

11:40

Presentation by WG C and Discussion

12:00

Presentation by WG D and Discussion

12:30

Lunch

13:30

PARALLEL SESSIONS OR JPL TOUR

13:30

Depart for JPL Tour from Westin – Group 1, return to Westin 16:30

14:00

Depart for JPL Tour from Westin – Group 2, return to Westin 17:00

Tour group assignments will be posted outside ICG Office in the Santa Rosa Room

**Second Session of Providers’
Forum**

Attended by only the Providers. The primary purpose is to discuss any draft recommendations to the ICG from the Working Groups and to develop response or suggest amendments to the draft recommendations.

Fountain Ballroom

**Meeting of Associate Members
and Observers – as needed**

The purpose is to discuss issues of common concern that have emerged during earlier sessions.

San Gabriel, San Pasqual, San Marino

15:00

Coffee Break

17:30 – 21:00

PARALLEL SESSIONS MAY CONTINUE AS NEEDED

Friday, December 12

08:00

PARALLEL SESSIONS – AS NEEDED

Additional time for parallel sessions in preparation for final plenary as needed – schedule for Closing and Adjournment of Third Plenary may adjust.

**Third Session of Providers’
Forum – as needed**

Attended by only the Providers. The primary purpose is to discuss any draft recommendations to the ICG from the Working Groups and to develop response or suggest amendments to the draft recommendations.

Madera Room

**Meeting of Associate Members
and Observers – as needed**

The purpose is to discuss issues of common concern that have emerged during earlier sessions.

San Pasqual, San Marino

10:00

THIRD PLENARY SESSION OF THE ICG

Attended by all. The primary purpose is to consider final recommendations as considered by the Providers’ Forum. This session will also consider other ICG-related issues.

Madera Room

Consideration of proposed ICG recommendations

Review and approval of meeting conclusions (joint statement)

Announcement for the Fourth Meeting of the ICG

Discussion of Venues and dates for ICG-5 (2010) and ICG-6 (2011)

Proposed dates:

December 6-10, 2010

December 5-9, 2011

Closing Statements

Adjourn

Coffee Break as schedule permits