PROVISIONAL AGENDA

Sunday, September 13

16:00 – 18:00  Registration *(Sokos Hotel)*

16:00 – 17:00  Meeting with the Working Groups Chairs *(Jazz room)*

17:00 – 18:00  Providers’ Forum Meeting *(Jazz room)*

Monday, September 14

08:00  On-site Registration

09:00  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.*

Large Auditorium *(Waltz room)*

09:00  Welcome/Opening Remarks

  Mr. Anatoliy SHILOV, Deputy Head of the Federal Space Agency *(Roscosmos)*, ICG-4 Chair

  Mr. Hans HAUBOLD, Office for Outer Space Affairs, United Nations Office at Vienna

09:30 – 09:40  Adoption of Agenda

09:40 – 10:10  Coffee Break/Group Photo
10:10 – 12:30  Providers System and Service Updates

10:10  Global Navigation Satellite System (GLONASS) and System of Differential Correction and Monitoring (SDCM), Mr. Sergey REVNIVYKH, Russian Federation

10:35  U.S. Space-based Positioning, Navigation and Timing Policy and Programme Update, Mr. Robert HESSIN, NCO for Space-Based PNT, Mr. David BUCKMAN, AFSPC, and Mr. Leo ELDRIDGE, DoT/FAA, United States of America

11:00  The European GNSS Programmes: EGNOS and GALILEO, Mr. Edgar THIELMANN, European Commission

11:25  COMPASS/BeiDou Navigation Satellite System Development, Mr. Qiangwen YANG, China Navigation Satellite Project Centre, China

Regional Providers Updates

11:50  Current Status of the Quasi-Zenith Satellite System, Mr. Koji TERADA, Japan Aerospace Exploration Agency (JAXA), Japan

Overview of MSAS (MTSAT Satellite-based Augmentation System, Office of Aeronautical Satellite Systems, ATS Engineering Division, Japan Civil Aviation Bureau

12:40  Announcement for the Fifth Meeting of the ICG
Mr. Mario Caporale, Italy

12:50 – 13:10  Coffee Break

13:10 – 14:00  Presentations by 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
Large Auditorium (Waltz room)

13:10  GNSS Programme: Education and Capacity Building in the Use of GNSS Technologies, Ms. Sharafat GADIMOVA, Office for Outer Space Affairs

13:20  System Information Exchange: A Provider’s Responsibility, Mr. Rick HAMILTON, Civil GPS Service Interface Committee

13:30  EUPOS Brief Status Report, Mr. Gerd ROSENTHAL, European Position Determination System

13:40  The Role of Positioning Infrastructure in Supporting the Millennium Development Goals, Mr. Matt HIGGINS, International Federation of Surveyors
13:50 BIPM actions and developments related with GNSS, Mr. Wlodek LEWANDOWSKI, International Bureau of Weights and Measures

14:00 – 15:00 Lunch

15:00 GNSS SCIENCE AND TECHNOLOGY APPLICATIONS

Attended by all. The primary purpose is for participants or invited presenters to raise awareness of issues and/or opportunities in user applications and GNSS technology for consideration by the ICG and/or Working Groups

Large Auditorium (Waltz room)

15:00 -16:30 Science and Innovative Applications

15:00 Review of Navigation Systems by the Russian Manufacturers, Trends and Prospects, Mr. Valery BABAKOV, Design-engineering department NAVIS Corp., Russian Federation

15:15 The Basic Directions of Application of Satellite Navigation on Aircraft of Civil Aviation, Mr. A. STULOV, State Research Institute “Aeronavigation”, Russian Federation

15:30 Maritime Navigation Systems, Mr. A. ROGOV, “TRANZAS” Corp., Russian Federation

15:45 Meeting Space User Requirements through Evolving PNT services, Larry YOUNG, NASA-JPL, United States of America

16:00 COMPASS Innovative Application, Mr. Yuanxi YANG, China National Administration of GNSS and Applications, China

16:15 Regional GLONASS-enabled Navigation and Data System for Transport Industry, Mr. B. POLTORAZKIY, “M2M Telematics” Co. Ltd., Russian Federation

16:30 – 16:45 Coffee Break

16:45 – 17:30 Science and Innovative Applications (continues)

16:45 European GNSS Evolutions Programme, Mr. Rafael LUCAS RODRIGUEZ, European Space Agency

17:00 Specific Applications of GLONASS/GPS System for Various Areas, Mr. Ivan NECHAYEV, “RNT” Corp., Russian Federation

17:15 Priority Areas of the Use of the GLONASS Technology in the Railroad System, Mr. N. SAZONOV, “NIAS” Corp., Russian Federation

17:30 GLONASS Technology Application for Mining Transport Dispatching, Mr. Dmitry VLADIMIROV, “VIST Group” Co. Ltd., Russian Federation
17:45 Towards a Multi-Constellation GNSS in Aviation, Mr. Francisco SALABERT, EUROCONTROL

Anthropogenic Greenhouse Gas Reduction Using GNSS, Mr. Jeff HAMILTON, Director, Strategic Partnerships, Trimble

18:00 Adjourn

19:00 Welcoming Reception

Tuesday, September 15

09:00 – 11:00 FIRST SESSION OF PROVIDERS’ FORUM

Attended by only the providers.

Large Auditorium (Waltz room)

11:00 – 11:30 Coffee Break

WORKING GROUP MEETINGS

11:30 – 17:30 WG A – Compatibility and Interoperability

Large Auditorium (Waltz room)

Co-Chairs: Mr. Sergey REVNIVYKH, Russian Federation and Mr. David TURNER, United States of America

11:30 – 13:00 Working Group Member Presentations on Interoperability and related topics

Template for GNSS service performance commitments, Mr. Karl KOVACH, GPS Wing/Aerospace, USA

SVN-49/PRN-01: Lessons Learned, Mr. David GOLDSTEIN, GPS Wing, USA

GLONASS view on compatibility and interoperability, Mr. Grigory STUPAK, Institute of Space Device Engineering, Russian Federation

Galileo View on Compatibility, Interoperability and Performance Standard, Mr. Frederic BASTIDE, European Commission

Proposal for Multi-GNSS Demonstration Campaign, Mr. Satoshi KOGURE, Japan Aerospace Exploration Agency (JAXA), Japan

Views on Compatibility and Interoperability, Ms. Jun LU, China Satellite Navigation Project Centre
Additional Presentations

13:00 - 14:00  Lunch

14:00 – 17:30  WG A – Compatibility and Interoperability (continues).

Co-chairs Presentation and Group Discussions

Report on 2009 Activities

- Interoperability Questionnaire
- Workshop and Meeting
- Report Findings and Recommendations

Principal and Definition of Interoperability

Recommendations for Committee Consideration

Status of workplan and actions

2010 Work Plan

14:00 – 17:30  (in parallel) WG C – Information Dissemination

Jazz room

Co-Chairs: Mr. Hans HAUBOLD and Ms. Sharafat GADIMOVA, United Nations Office for Outer Space Affairs

14:00  Opening remarks, Ms. S. Gadimova and Mr. H. Haubold, UNOOSA

14:05  Russian Experience in Satellite Navigation Distance Learning: International Cooperation, Ms. I. BRINDIKOVA, Russian Institute of Space Device Engineering, Russian Federation

14:15  Experience in Preparations and Improvements of Professional Skill of Specialists in the Bauman Moscow State Technical University, Mr. A. SHUMOV, BMSTU, Russian Federation

14:25  Public Organizations’ Activity with Potential GNSS Users, Mr. V. KLIMOV, Association "GLONASS/GNSS Forum", Russian Federation

14:35  The Reshetnev Siberian State Aerospace University, Mr. G.P. BELYAKOV, Siberian State Aerospace University named after academician M.F. Reshetnev, Russian Federation

14:45  GNSS Activities of the United Nations- affiliated Regional Centres for Space Science and Technology Education, Mr. Joseph AKINYEDE, ARCSSTE, Nigeria, Mr. Abderrahmane TOUZANI, Morocco, Mr. Sergio CAMACHO, Mexico
14:55 Educational Tools for GNSS, Prof. Letizia LO PRESTI, Politecnico di Torino, Italy

15:10 YGNSS Activities, Ms. Stephanie WAN, SGAC

15:20 Working Group Discussion of 2009 Work Plan (draft report)

16:00 – 16:20 Coffee Break

(in parallel) WG C – Information Dissemination (continues)

Jazz room


17:30 Adjourn

Wednesday, September 16

WORKING GROUP MEETINGS (continues)

09:00 – 13:00 WG D – Interactions with National, Regional Authorities and International Organizations

Large Auditorium (Waltz room)

Co-Chairs: Mr. Matt HIGGINS, Fédération internationale des géomètres (FIG), Ms. Ruth NEILAN, International Association of Geodesy (IAG) and Mr. John DOW, International GNSS Service (IGS)

09:00 – 11:00 Task Force on Geodetic References

09:00 – 09:05 Introduction by co-chairs: Objectives of Task Force, Mr. John M. DOW, Mr. Matt HIGGINS

09:05 – 09:15 The International Terrestrial Reference System (ITRS) as a global standard, Mr. Claude BOUCHER, IAG, France

09:15 – 09:30 The International Terrestrial Reference Frame (ITRF), Mr. Zuheir ALTAMIMI, IGN/IERS, France

09:30 – 09:45 GPS Geodetic Reference System WGS 84, Ms. Barbara WILEY, National Geospatial-Intelligence Agency, USA

09:45 – 10:00 Russian National Geodetic Reference System Update, Mr. Gleb DEMYANOV, Research Institute of Geodesy, Aerial Photography and Mapping, Russian Federation
Galileo Geodetic Service Provider: Approach to the Galileo Geodetic Reference Frame (GTRF), Mr. Zuheir ALTAMIMI, on behalf of the GGSP Consortium

CGCS 2000, Dr. Yang YUANXI, CNSA, China

About Compliance of “GLONASS” S/C Retroreflectors System with the Requirements of International Laser Ranging Service Standards, Mr. Viktor SHARGORODSKY, Research Institute of Precision Device Engineering, Russian Federation

Discussion and conclusions

Coffee Break

WG D – Interactions with National, Regional Authorities and International Organizations (continues)

Task Force on Time References

Introduction by co-chairs: Objectives of Task Force, Ms. Felicitas ARIAS, Mr. Włodzimierz LEWANDOWSKI

Fundamentals on UTC - Relationship between GNSS Times, Ms. Felicitas Arias, Mr. Włodzimierz Lewandowski, BIPM

GPS Time and its Steering to UTC(USNO), Mr. Ed POWERS, to be confirmed

The State Service for Time and Frequency and GLONASS Fundamental Ensuring Means, Mr. Nicolay KOSHELYAEVSKY, Research Institute of Physic-Technical and Radio-Technical Measurement, Russian Federation

The Definition and Implementation of Galileo System Time, Mr. J. DELPORTE, CNES, France

IRNSS/GAGAN Timing Infrastructure in India, Mr. Włodzimierz LEWANDOWSKI on behalf of Suresh KIBE, ISRO, India

Discussion and conclusions

QZSS Joint Demonstration Campaign – Proposal, Mr. Satoshi KOGURE, JAXA, Japan

Comments on WG-D Work Plan

Lunch
14:00 – 17:30

**WG B – Enhancement of Performance of GNSS Services.**

*Jazz room*

*Co-Chairs: Mr. Rafael Lucas RODRIGUEZ, European Space Agency and Mr. Suresh KIBE, India*

**Presentations**


GLONASS/GPS Receivers for Improving GNSS Services and their Application for Transportation Development, *Mr. V.V. PUCHKOV, “GeoStar Navigation” and Mr. Ye. A. BELYANKO, “M2M Telematika” Ltd. Co., Russian Federation*

The Use of A-GNSS Technology for Improving the GNSS Services, *Mr. Sergey REVNIVYKH, Russian Federation*

New Multipath Detection and Mitigation Techniques, *Jose Angel Avila Rodriguez, Stefan Wallner, Matteo Paonni, Thomas Kraus, Bernd Eisfeller, Institute of Geodesy and Navigation, University FAF Munich, Germany*

**Discussion topics**

Use of advanced modulation techniques to minimize multipath errors

Advanced techniques for multipath mitigation in GNSS user receivers

Selection of ranging codes to improve tracking and acquisition performance of receivers for indoor positioning

Advances in LDPC CC and its use in GNSS

Extension of GNSS accuracies through use of terrestrial systems such as, FM, OFDM and evolving technologies for Broadband Wireless Access such as, Wi-Fi and WiMAX

Integration of GNSS and terrestrial mobile phones and internet wireless technology experiments such as SISNeT

Real time GIS visualization on mobile and user terminal and integration of timing service on mobile phones

Redundant and parallel terrestrial satellite based technologies

16:00 – 16:20  *Coffee Break*

17:30  Adjourn
Thursday, September 17

09:00 – 10:00  SECOND SESSION OF PROVIDERS’ FORUM

Attend by only the providers.

Large Auditorium (Waltz room)

10:00 – 12:30  SECOND PLENARY SESSION OF THE ICG

Attend by all. The primary purpose is for Working Groups to present results of their meetings or any meetings held since the Third Meeting of the ICG. Presentations will include any draft recommendations to the ICG.

Large Auditorium (Waltz room)

10:00 -10:30  Presentation by WG A and Discussion

10:30 – 11:00  Presentation by WG B and Discussion

11:00 – 11:30  Coffee Break

11:30 – 12:00  Presentation by WG C and Discussion

12:00 – 12:30  Presentation by WG D and Discussion

12:30 – 13:30  Lunch

14:00 – 19:00  Area Tours

20:00 – 22:00  Neva river boat reception

Friday, September 18

09:00 – 13:00  THIRD PLENARY SESSION OF THE ICG

Attend 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.

Large Auditorium (Waltz room)

09:00  Opening remarks

09:15  Consideration of proposed ICG recommendations

10:30  Coffee Break

11:00  Other matters

11:30  Review and approval of meeting conclusions (joint statement, press release, etc.)
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<tr>
<td>12:00</td>
<td>Proposals for Meetings of the ICG in 2011 and 2012</td>
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<td>12:30</td>
<td>Closing Statements</td>
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