ICG WORKING GROUP S
Systems, Signals, and Services
ICG-12 Meeting
Kyoto, Japan
2-7 December 2017
AGENDA

Monday, 04 December

0915-0930 Introduction
1) WG-S Co-chairs Opening Remarks
2) Approval of the Agenda
3) WG-S Events in 2017

0930-1000 GNSS Updates

1) Beidou (BDS)
2) Galileo
   a. Galileo I/NAV changes
3) GLONASS
4) GPS
5) QZSS
6) IRNSS/NAVIC

System Providers

EU

* Note: This is an opportunity for group discussion on any information relevant to WG-S that requires clarification or elaboration based on the system provider updates presented in the plenary session on Monday, 07 November.
1000-1115  

**GNSS Compatibility & Spectrum (*IDM Standards and Information Exchange*)**

1) **PRESENTATIONS**

   a. GPS Interference Test Approval Process

      *Rick HAMILTON, U.S.*

   b. Interface Between Aviation Authorities and GNSS Service Provider to Analyze Possible RFI Incidents

      *Rick HAMILTON & Ken ALEXANDER, U.S.*

   c. Practical estimation of electromagnetic and interference environment at the point of location of measurements in GNSS frequency bands. Recommendation. The current version of the document

      *Stanislav KIZIMA, Russia*

   d. GNSS Interference Detection and Localization for Urban Area and Critical Infrastructure

      *Weimin ZHEN, Wen XIONG & Yi ZHOU, China*

2) **Report of the IDM Task Force**

   *Rick HAMILTON, U.S. & Weimin ZHEN, China*

1115-1135  

**Coffee Break***

1135-1300  

**GNSS Compatibility & Spectrum (*Signal Compatibility and Spectrum Protection*)**

1) **PRESENTATIONS**

   *Working Group Members*

2) **Report of the Compatibility & Spectrum Sub-Group**

   *Dominic HAYES, EU & Takahiro MITOME, Japan*

3) **Recommendations and Actions**

   a. Recommendation 12S.1: Interference protection criteria

   b. Recommendation 12S.2: Device-based interference detection standard

   c. Actions from Intersessional Meetings
1300-1400  Lunch

1400-1500  Performance Standards Team Meeting

1500-1530  Interoperability & Service Standards (Open Service Standards)

1) PRESENTATIONS
   a. Summary of Draft Changes to GPS SPS PS
      Andrew Hansen, U.S.

2) Update from the Performance Standards Team
      Alexey BOLKUNOV, Russia & John LAVRAKAS, U.S.

3) Way Forward

1530-1555  Interoperability & Service Standards (Multi-GNSS Interoperability)

1) PRESENTATIONS
   a. GNSS Ensemble Time
      Dominic HAYES, EU

      b. Time Scale Interoperability Issues
         Russian Institute of Radionavigation and Time (RIRT), Russia

      c. Interoperability Assessment for the Navigation Receiver Level
         Sergey Silin, Russia

1555-1615  Coffee Break

1615-1730  Interoperability & Service Standards

1) Report of the Subgroup Co-chairs
      Jeff AUERBACH, U.S. & Xiaochun LU, China

2) Recommendations and Actions
   a. Draft Recommendation 12S.3: 2nd System Time Workshop
   b. Discussion on Service Anomaly Information Exchange
   c. EU Proposal for an IGMA and Performance Standards Workshop in 2018
Tuesday, 05 December

0915-1115 Joint Working Group Session (S, B, C, D)

Open Service Information Sharing and Service Performance Monitoring
(International GNSS Monitoring and Assessment)

1) PRESENTATIONS
   a. U.S. Update on Trial Project Implementation
      Andrew HANSEN & John LAVRAKAS, U.S.
   b. Galileo Reference Centre and the EU's contribution to the IGMA
      EU
   c. IGMA: Challenges and Way Forward
      Alexey BOLKUNOV, Russia
   d. EU Proposal to host IGMA and Performance Standard Workshop
      EU
   e. Algorithms and Implementation of GNSS Basic Monitor and Assessment
      Parameters
      Xiaolin JIA & Jianwen LI, China

2) Report of the IGMA Task Force
   Satoshi KOGURE, Xurong DONG & WG-D

3) Review Next Steps and Actions

Space Service Information

1) Space Service Volume Report from WG-B

1115-1135 Coffee Break

1135-1230 System-of-Systems Operation

1) Orbital Debris Mitigation Guidelines
a. Galileo Satellite Disposal Plans

EU

b. Orbital stability analysis and safety guidelines of BDS satellites end-of-life disposal

Xinuo CHANG, China

2) Other PRESENTATIONS
   a. QZSS Operation Orbit Area vs. GEO Protected Regions

Mari YUZAWA, Japan

3) Way Forward

David TURNER, U.S. & Sergey REVNIVYKH, Russia

1230-1530 Lunch and Attendance at other Working Group Meetings

1530 City Tour Followed by Banquet

Wednesday, 06 December

0900-1100 Review and Consensus on Working Group Actions and Recommendations; Refinement of the WG-S Report to the Committee and Providers Forum

1) Compatibility and Spectrum Actions and Recommendations
   Takahiro MITOME, Dominic HAYES, Sergey REVNIVYKH & David TURNER

2) Interoperability and Service Provision Actions and Recommendations
   Xiaochun LU, Jeff AUERBACH, Sergey REVNIVYKH & David TURNER

3) Review of Co-Chairs Presentation to the ICG Plenary

4) Possible Times and Locations for Intersessional Meeting(s)

5) Closing Remarks
   David TURNER, U.S. & Sergey REVNIVYKH, Russia