



International Committee on
Global Navigation Satellite Systems

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

System Providers

- 1) Beidou (BDS)
- 2) Galileo
 - a. Galileo I/NAV changes

EU

- 3) GLONASS
- 4) GPS
- 5) QZSS
- 6) IRNSS/NAVIC

* 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