



International Committee on
Global Navigation Satellite Systems

**ICG EXPERTS MEETING:
GLOBAL NAVIGATION SATELLITE SYSTEMS SERVICES**

**14 - 18 December 2015
Vienna International Centre, Vienna, Austria**

*Organized by
International Committee on Global Navigation Satellite Systems (ICG)*

*Sponsored by
United States of America and European Commission*

PRELIMINARY PROGRAMME

Monday, 14 December 2015

15:00 onwards Registration of Participants (Vienna International Centre)

ICG Informal meetings will be scheduled

Tuesday, 15 December 2015

OPENING SESSION

09:00 – 09:30	WELCOME REMARKS	OOSA
	OPENING ADDRESS	United States, Co-sponsor European Commission, Co-sponsor

09:30 – 10:30 **ICG Work Plan and Working Groups Overviews**

The Co-chairs or designated participant (s) of each work group will give a brief description of the actions underway to accomplish the workplan of the ICG with a focus on activities to be carried out in 2016.

09:30 – 09:45 Working Group A: Compatibility and Interoperability, Russian Federation and United States

09:45 – 10:00 Working Group B: Enhancement of Performance of GNSS Services, India and

European Space Agency

10:00 – 10:15	Working Group C: Information Dissemination and Capacity Building, <i>OOSA</i>
10:15 – 10:30	Working Group D: Reference Frames, Timing and Applications, <i>FIG, IAG and IGS</i>
10:30 – 10:50	Coffee Break

SESSION 1– GNSS Providers

10:50 – 13:00	Overview of Global Navigation Satellite Systems <i>All system and augmentation system providers will present reports on the technical characteristics of their systems and services provided to GNSS users</i>
10:50 – 11:10	<i>China:</i> BeiDou Navigation Satellite System (BNS)
11:10 – 11:30	<i>European Commission:</i> Galileo and European Geostationary Navigation Overlay Service (EGNOS)
11:30 – 11:50	<i>India:</i> GPS and GEO Augmented Navigation System (GAGAN) and Indian Regional Navigation Satellite System (IRNSS)
11:50 – 12:10	<i>Japan:</i> Quasi-Zenith Satellite System (QZSS) and Multi-functional Transport Satellite (MTSAT) Satellite-based Augmentation System (MSAS)
12:10 – 12:30	<i>Russian Federation:</i> Global Navigation Satellite System (GLONASS) and Wide-area System of Differential Corrections and Monitoring (SDCM)
12:30 – 12:50	<i>United States:</i> Global Positioning System (GPS) and Wide-area Augmentation System (WAAS)
12:50 – 14:00	Lunch Break

SESSION 2 – GNSS Applications and Value Added Services

14:00 -16:00	<i>Leaders from industry, academia and organization representing users or producers will give a brief summary of their application sector with an emphasis on satellite systems compatibility and interoperability from their perspectives</i>
14:00 – 14:20	Aviation, Maritime and Public Transportation
14:20 – 14:40	Surveying, mapping, Earth science, space weather
14:40 – 15:00	Management of natural resources, the environment, and disasters
15:00 – 15:20	Timing applications

15:20 – 15:40	Agriculture, Mining and Machine Control
15:40 – 16:00	PNDs, Automobile Navigation, Cellular communications (Mass Market)
16:00 -16:20	Coffee Break
	DISCUSSION SESSION
16:30 – 18:00	<i>A discussion between providers and users on the main topics and the development of a common strategy aimed at increasing the use of GNSS technology and contributing to the level of cooperation, including possible collaboration with industry leaders and linkages with current and planned system and augmentation system providers</i>
19:00 – 21:00	Adjourn

Wednesday, 16 December 2015

09:00 – 18:00	SESSION 3 – Seminar on GNSS Spectrum Protection and Interference Detection and Mitigation
	<i>A seminar to educate national spectrum managers regarding international, regional and national regulations that affect GNSS (see Annex 1)</i>
18:00	Adjourn

Thursday, 17 December 2015

09:00 – 13:00	SESSION 3 – Seminar on GNSS Spectrum Protection and Interference Detection and Mitigation (continues)
13:00 – 14:00	Lunch Break
14:00 – 16:00	DISCUSSION SESSION
	<i>To address in-depth questions and answers on specific topics unique to a particular region and/or participating country</i>
16:00 – 16:20	Coffee Break
16:20 – 18:00	DISCUSSION SESSION (continues)
18:00	Adjourn

Friday, 18 December 2015

09:00 -13:00	CONCLUDING SESSION
	<i>Round table to finalize the recommendations/observations/proposals</i>

- Summary report of discussion sessions: presentation of proposals and recommendations consolidated at the discussion sessions

Concluding Remarks

- OOSA
- Co-sponsors

13:00

Adjourn

PRELIMINARY AGENDA
SEMINAR ON GNSS SPECTRUM PROTECTION AND INTERFERENCE DETECTION AND MITIGATION

I. Introduction

The introduction will set forth the agenda to include: History, International Framework for RNSS spectrum protection, the role of the ITU, Spectrum allocations for RNSS, ITU-BR recommendations related to RNSS, and Interference Detection and Mitigation and laws related to GNSS jammers.

II. History

This section will focus on the early development of GPS/GNSS and the spectrum that was available for its use.

III. International Organizations Involved in Spectrum

International organizations involved in RNSS spectrum management, including regional groups, will be identified and defined.

IV. International Telecommunication Union

This portion will describe the ITU, its background, its organizations and its functions, with emphasis on its role in RNSS spectrum allocation and management.

V. ITU Recommendations

The content of the various ITU-R Recommendations, which deal with RNSS will be reviewed, including the process by which they are developed. Specific focus will be placed on those recommendations developed by the ITU working party focused on RNSS.

VI. Spectrum Allocations

National RNSS spectrum allocations will be discussed and compared to ITU allocations.

VII. Non-Licensed Emissions

National regulations regarding Non-Licensed emissions limits from RF emitters and non-emitters will be discussed.

VIII. Future Developments

The material in this section will cover various RNSS applications in development or being considered that could impact required levels of RNSS spectrum protection.

IX. Interference Detection and Mitigation

The responsibilities of national and/or regional governmental authorities for detecting and mitigating interference for the benefit of their users will be discussed.

X. GNSS Jammers

This section will cover a review of planned or existing laws and regulations related to the manufacture, sale, export, import, purchase, ownership, and use of GNSS jammers.

XI. Summary

The section will review the material covered in the previous sessions.