



## ICG EXPERT MEETING ON GNSS SYSTEMS AND SERVICES

### **International Committee on Global Navigation Satellite Systems (ICG): A System of Systems**

**15 July 2008**

**COSPAR • Montreal • Canada**

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

*Sponsored by  
United States of America and Committee on Space Research (COSPAR)*

*Supported by  
China, European Community, India, Japan, Russia and United States of America*

### **A word of welcome...**

In order to increase knowledge and expertise relating to Global Navigation Satellite Systems (GNSS) in the world, we invite you to join the 2008 ICG Expert Meeting on GNSS Systems and Services. In this meeting, ICG will introduce the scope of its work, aiming at a system of systems. We draw your attention to a brief description of ICG at the end of this announcement. The speakers in this one-day meeting will come from a wide variety of geographical and professional backgrounds, and will form a highly knowledgeable team of experts.

Its focus will be on identifying the needs of users and manufacturers of user equipment with respect to the compatibility and interoperability of global systems, regional systems, and space-based augmentations providing and planning to provide GNSS services. The work plan of the ICG Working on Compatibility and Interoperability (WG A) will be the major emphasis of the meeting, although information on each ICG Working Group and its activities will be provided. The goal will be to incorporate useful user and application sector views and inputs into WG A's proposed report to the ICG describing system-level compatibility and interoperability from the users perspective.

COSPAR recognized the importance of this event and agreed to co-organize the meeting. It is hoped that this meeting will further strengthen the foundations for the development of international and regional expertise in the area of GNSS applications. The meeting will provide ample time for discussion open to all participants, and networking opportunities.

Montreal is the center of politics, economy, culture and diplomacy in Canada. Many space related institutions are established here, gathering numerous scholars with outstanding qualities. Montreal has abundant travel resources, too. The Organizing Committee of the COSPAR Scientific Assembly will offer you excellent service and we believe that every participant will enjoy a very fruitful meeting.

Wishing the meeting success!

**Chairperson**

# PROGRAMME

## Monday, 14 July 2008

15:00 onwards Registration of Participants

*Informal meetings will be scheduled*

## Tuesday, 15 July 2008

### OPENING SESSION

09:00 – 09:05 WELCOME REMARKS *President, COSPAR*

09:05 – 09:15 OPENING ADDRESS *India, Host of ICG-2*

09:15 – 09:30 KEYNOTE SPEECH *United States, Host of ICG-3*

09:30 – 10:30 ICG Work Plan and Working Group Overviews

The Co-chairs or designated participant (s) of each work group will give a brief description of the actions underway to accomplish the work plan of the ICG with a focus on activities since ICG-2

09:30 – 09:45 Working Group C: Information Dissemination

09:45 – 10:00 Working Group B: Enhancement of performance of GNSS services

10:00 – 10:15 Working Group D: Interaction with national and regional authorities and relevant international organizations

10:15 – 10:30 Working Group A: Compatibility and Interoperability

10:30 – 10:50 Coffee Break

### SESSION 1– GNSS Providers

10:50 – 13:00 Overview of Global Navigation Satellite Systems

All system and augmentation system providers will present reports on the technical characteristics of their systems and services provided to GNSS users (see attached Template)

10:50 – 11:10 *China:*  
Compass/BeiDou Navigation Satellite System (CNSS)

11:10 – 11:30 *European Community:*  
Galileo and European Geostationary Navigation Overlay Service (EGNOS)

11:30 – 11:50 *India:*  
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)
13:00 – 14:00	Lunch

## **SESSION 2 – GNSS Services**

14:00 -16:00	Compatibility and Interoperability at the User Equipment Level  Leaders from Industry, Academia or 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
14:00 – 14:20	Aviation, Maritime and Public Transportation
14:20 – 14:40	Surveying, mapping, and Earth science
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 -16:30	Coffee Break

## **CONCLUDING SESSION**

16:30 – 18:00	The Co-chairs of Working Group A will facilitate a discussion between providers and users/producers on the importance of compatible and interoperable among satellite systems
19:00 – 21:00	Dinner – location TBD

## **Wednesday, 16 July 2008**

10:00 onwards	<i>Informal meetings may be scheduled as necessary pending availability of meeting space</i>
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**ATTACHMENT**  
**Template for System/Service Provider Session 1 Presentations**

- I. System (s) Description
  - A. Space Segment – Technical parameters such as altitude and inclination of GEO slot position. As appropriate, it could also address satellite disposal procedures and orbit information, to establish a baseline for ensuring de-confliction with other constellations.
  - B. Ground Segment
  - C. Signals – current and planned signals
  - D. System time and geodetic reference frame standards
  - E. Performance – Performance standards vs. actual performance
  - F. Timetable for system deployment and operation
- II. Services Provided and Provision Policies

## **THE INTERNATIONAL COMMITTEE ON GLOBAL NAVIGATION SATELLITE SYSTEMS (ICG)**

**The International Committee on Global Navigation Satellite Systems (ICG)** was established in 2005.

Following the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III), held in 1999, the United Nations General Assembly endorsed the “Vienna Declaration: Space Millennium for Human Development.” The Vienna Declaration called for action to improve the efficiency and security of transport, search and rescue, geodesy and other activities by promoting the enhancement of, universal access to and compatibility among, space-based navigation and positioning systems. In response to that call, in 2001, the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) established the Action Team on Global Navigation Satellite Systems (GNSS) to carry out those actions under the chairmanship of Italy and the United States of America.

The Action Team on GNSS, consisting of 38 member States and 15 inter-governmental and non-governmental organizations, recommended that an International Committee on GNSS (ICG) be established to promote the use of GNSS infrastructure on a global basis and to facilitate exchange of information. COPUOS included this recommendation in the Plan of Action proposed in its report to the United Nations General Assembly on the review of the implementation of the recommendations of UNISPACE III.

To implement the recommendation of UNISPACE III related to the use of global navigation and positioning systems and to support the work of the Action Team on GNSS, starting in 2001 the Office for Outer Space Affairs of the Secretariat organized regional workshops and international meetings focusing on capacity-building in the use of GNSS in various areas of applications that support sustainable development.

The International Committee on Global Navigation Satellite Systems (ICG) held its first meeting in Vienna on 1- 2 November 2006 to review and discuss matters relating to Global Navigation Satellite Systems (GNSS) and their applications. The ICG adopted its terms of reference and work plan as developed in international meetings held since 2002. The current work plan included compatibility and interoperability; enhancement of performance of GNSS services; information dissemination; interaction with national and regional authorities and relevant international organizations; and coordination. All participants would cooperate, as appropriate, on matters of mutual interest related to civil satellite-based positioning, navigation, timing and value-added services. In particular, they would cooperate to the maximum extent practicable to maintain radio frequency compatibility in spectrum use between different GNSS systems in accordance with the International Telecommunication Union (ITU) Radio Regulations.

The ICG, a forum for discussion on matters related to GNSS on a worldwide basis, will continue to meet regularly to address issues of common interest. The third meeting of the ICG will be held from 8 to 12 December 2008 at Jet Propulsion Laboratory, in Pasadena, United States. The fourth meeting will be held in 2009, in Russian Federation.

## **THE PROVIDERS FORUM (ICG/PF)**

**The Providers Forum (ICG/PF)** was established in 2007.

A Providers Forum was established at the second meeting of the International Committee on Global Navigation Satellite Systems (ICG) in Bangalore, India, with the aim to promote greater compatibility and interoperability among current and future providers of the Global Navigation Satellite Systems (GNSS). The current members of the Providers Forum, including China, India, Japan, the European Community, the Russian Federation and the United States, addressed key issues such as ensuring protection of GNSS spectrum and matters related to orbital debris/orbit de-confliction.

## **MEETING INFORMATION**

### **MEETING SECRETARIAT**

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

Address: United Nations Office for Outer Space Affairs, P.O. Box 500, 1400 Vienna, Austria

Phone: + 43 1 26060 5479

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Web: <http://www.icgsecretariat.org>

### **CONFERENCE VENUE/HOTEL: Palais des Congres**

The Palais des Congres is a showcase of sophistication, modern elegance amidst beautifully landscaped gardens; it is a distinguished landmark in the business center of Montreal and is conveniently located near the famous sights of the historic Old Montreal.

All guest rooms are tastefully decorated and furnished, including IDD/DDD facilities, in-room safe, individually controlled air conditioner, color TV and mini-bar. The Palais also provides various types of floors including non-smoking Floors and newly renovated Executive Floors.

The Palais has 10 restaurants and several lounges offering the finest in specialty cuisine, including Muslim, Japanese, Continental buffets.

### **REGISTRATION DEADLINE**

10 June 2008



**ICG** International Committee on  
Global Navigation Satellite Systems

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**15 July 2008**  
**Montreal, Canada**

### ***REGISTRATION FORM***

Mr./Dr./Prof./Mrs./Ms. \_\_\_\_\_

First name: \_\_\_\_\_

Last name: \_\_\_\_\_

Job Title: \_\_\_\_\_

Division: \_\_\_\_\_

Company/Institution: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip Code: \_\_\_\_\_

Country: \_\_\_\_\_

Tel.: \_\_\_\_\_

Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

***Passport No. / date of validity / exact name as on passport:*** \_\_\_\_\_

Date: \_\_\_\_\_ Signature: \_\_\_\_\_

**PLEASE SEND THIS FORM BEFORE Tuesday, 10 June 2008 TO:**

ICG Secretariat

Address: United Nations Office for Outer Space Affairs, P.O. Box 500, 1400 Vienna, Austria

Phone: + 43 1 26060 5479

Fax: + 43 1 26060 5830

Email: [sharafat.gadimova@unoosa.org](mailto:sharafat.gadimova@unoosa.org)