

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

Hosted by the European Commission on behalf of the European Union and Italy

Turin, Italy 18 – 22 October 2010

AGENDA

Sunday, 17 October

16:00 - 18:00	On-site registration (International Training Centre (ITC-ILO))
16:00 - 17:00	Meeting with the Working Groups Co-Chairs
17:00 – 18:00	Providers' Forum Meeting

Monday, 18 October

08:00	On-site registration (International Training Centre (ITC-ILO))
09:00	FIRST PLENARY SESSION OF THE ICG
	Co-Chairs: Mr. Mario Caporale, Italian Space Agency and Mr. Michel Bosco, European Commission
	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
09:00 - 09:30	Welcome/Opening Remarks
	Minister Maurizio ZANINI, Ministry of Foreign Affairs, Italy
	Mr. Cosimo La ROCCA, Assistant of the President of the Italian Space Agency, Italy
	Mr. Dario ARRIGOTTI, Deputy Director of the ITC-ILO Training Centre, Italy
	Mr. Rodolfo ZICH, President of Consorzio Torino Time, Italy
	Mr. Paul WEISSENBERG, Director, Space, Security and GMES, DG Enterprise and Industry, European Commission
	Ms. Sharafat Gadimova, <i>Office for Outer Space Affairs, United Nations Office at Vienna</i>

09:30 - 09:40	Adoption of Agenda
	Providers System and Service Updates
09:40 - 10:00	Galileo/EGNOS Status Update, Mr. Edgar Thielmann, European Union
10:00 - 10:20	US Systems Status and Service Provision, Mr. Anthony Russo, United States of America
10:20 – 10:40	GLONASS Status and Development, Mr. Grigory Stupak, Russian Federation
10:40 - 11:00	BeiDou Navigation Satellite System Development, Mr. Ran Chengqi, China
11:00 – 11:20	Coffee Break
	Regional Providers Updates
11:20 – 11:40	Overview of GAGAN and IRNSS Programme, Mr. Narayanaswamy Neelakantan, India
11:40 – 12:00	QZSS and MSAS Status and Development, Mr. Mikio Aoki and Mr. Satoshi Kogure, Japan
12:00 – 12:15	Interagency Operations Advisory Group (IOAG) introduction, Mr. James Miller, NASA
12:15 – 15:00	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
12:15 – 12:30	Programme on GNSS, Ms. Sharafat Gadimova, United Nations Office for Outer Space Affairs
12:30 –12:45	What do Surveyors and Other Spatial Professionals need from an Interoperable GNSS System of Systems, <i>Mr. Matt Higgins, International Federation of Surveyors</i>
12:45 – 13:00	Recent developments in the IGS, Mr. John Dow, International GNSS Services
13:00 - 14:00	Group photo Lunch Presentations by Associate Members and Observers on Matters of Interest to ICG (continues)
14:00 – 14:15	Recent developments in CGSIC, Mr. Stephen Rick Hamilton, Civil GPS

Service Interface Committee

14:15 – 14:30	COSPAR's Contribution to the Scientific Application of GNSS, Mr. Janusz
	Zielinski, Committee on Space Research

- 14:30 14:45 ITU-R RNSS Progress Report, Mr. Attila Matas, ITU
- 14:45 15:00 Universal-SBAS: A Worldwide Multimodal Standard, Mr. Cyril Botteron, European and Canadian GNSS laboratories

15:00 – 18:00 GNSS technology in the era of multi-systems receivers

Co-Chairs: Mr. Ignacio Fernández Hernández, European Union and Mr. Kenneth Alexander, United States of America

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

- 15:00 15:15 Multi-GNSS receiver trends for consumer devices, Mr. Greg Turetzky, United States of America
- 15:15 15:30 Benefits from multi-GNSS receivers and approaches for deployment, *Mr. Hiroaki Maeda, Japan*
- 15:30 15:45 Beidou/Compass and its unique contributions to GNSS, *Mr. Shaowei Han, China*
- 15:45 16:00 Multisystem receivers for GNSS users, Mr. Oleg Lopatko, Russian Federation
- 16:00 16:15 Coffee Break
- 16:15 16:30Software radio as technology brick for the development of GNSS
multi-system receivers: results made in Torino, *Mr. Paolo Mulassano, Italy*
- *16:30 16:45* GNSS receivers for timing applications, *Ms. Pascale Defraigne, European Union*
- 16:45 17:00 Benefits of GNSS Receiver in the era of multi-systems, *Ms. Xiaorui Huang, China*
- 17:00 17:15 Overview of Regional Navigation Receivers (IRNSS), *Mr. Narayanaswamy Neelakantan, India*
- 17:15 17:30 Seamless GNSS through integrated user equipment: A joint evaluation of US and EU systems, *Mr. Kenneth Alexander, United States of America and Mr. Ignacio Fernández Hernández, European Union*
- 17:30 Questions and Answers; Panel Discussion

18:00 Adjourn

Tuesday, 19 October

09:00 - 11:00	FIRST SESSION OF PROVIDERS' FORUM
	Attended by only the providers.
	(in parallel) Meeting of Associate Members and Observers – as needed
	The purpose is to discuss issues of common concern that have emerged during earlier sessions.
11:00 - 11:30	Coffee Break
11:30 - 16:00	WORKING GROUP MEETINGS (parallel sessions of WG A and WG C)
	WG A – Compatibility and Interoperability
	Co-Chairs: Mr. Sergey Revnivykh, Russian Federation and Mr. David Turner, United States of America
	(in parallel) WG C – Information Dissemination and Capacity Building
	Co-Chairs: Ms. Sharafat Gadimova and Ms. Antonella Bini, United Nations Office for Outer Space Affairs and Ms. Letizia Lopresti, Italy
13:00 - 14:00	Lunch
16:00	Adjourn
16:00 - 16:30	Coffee Break
16:30	CULTURAL TOUR
21:00	GALA DINNER
Wednesday, 20 O	ctober
09:00 - 13:00	WORKING GROUP MEETINGS

WORKING GROUP MEETINGS (parallel sessions of WG B and WG D)

WG B – Enhancement of performance of GNSS services

Co-Chairs: Mr. Narayanaswamy Neelakantan, India and Mr. Rafael Lucas Rodriguez, European Space Agency

(in parallel) WG D – Interactions with national, regional authorities and international organizations

Co-Chairs: Mr. John Dow, International GNSS Services, Ms. Ruth Neilan,

	International Association of Geodesy and Mr. Matt Higgins, International Federation of Surveyors
11:00 – 11:30	Coffee Break
13:00 – 14:00	Lunch
14:00 - 17:00	GNSS technology in the era of multi-systems: the impact of GNSS interoperability on timing and other user applications
	Co-chairs: Prof. Elio Bava, Italy and Prof. Wlodzimierz Lewandowski, BIPM
	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
14:05 – 14:25	Applications of GPS provided time and frequency, Mr. Edward D. Powers, United States of America
14:25 – 14:45	GLONASS time system scale, Mr. Arkady Tyulyakov, Russian Federation
14:45 – 15:05	Time metrology in navigation systems: the experience of INRIM in the Galileo project, <i>Ms. Patrizia Tavella, Italy</i>
15:05 – 15:25	The Consorzio Torino Time scientific and industrial activities, <i>Mr. Luigi Bragagnini, Italy</i>
15:25 – 15:45	QZSS Time management and UTC, Mr. Shin'ichi Hama, Japan
15:45 – 16:05	Overview of the Timing system being planned for India's IRNSS, Mr. Narayanaswamy Neelakantan, India
16:05 - 16:25	Coffee Break
16:25 – 16:45	Impact of multi-GNSS on international timekeeping, Ms. Felicitas Arias, BIPM
16:45 – 17:05	Development of timing GPS\GLONASS\Galileo receivers at Astrogeodynamical Observatory in Borowiec, <i>Mr. Jerzy Nawrocky,</i> <i>European Union</i>
17:05 – 17:20	Questions and Answers
17:20	Adjourn

TECHNICAL TOUR - INRIM

Thursday, 21 October

WORKING GROUP PARALLEL SESSIONS

Primary purpose is to prepare conclusions and recommendations for full committee consideration.

10:30 – 11:00 Coffee Break

11:00 – 16:00 SECOND PLENARY SESSION OF THE ICG

Co-Chairs: Mr. Mario Caporale, Italian Space Agency and Mr. Paul Verhoef, European Commission

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

- 11:00 12:00 **Presentation by WG A and Discussion**
- 12:00 13:00 **Presentation by WG C and Discussion**
- 13:00 14:00 Lunch
- 14:00 15:00 **Presentation by WG B and Discussion**
- 15:00 16:00 **Presentation by WG D and Discussion**
- *16:00 16:30 Coffee Break*

16:30 - 17:30 Round Table Discussions (Italian Industries)

Attended by all. The Italian Space Agency is organizing a round table of the major Italian industries involved in satellite navigation activities to discuss the European GNSS in the frame of the international cooperation. The following themes will be addressed: compatibility, interoperability and transparency among the GNSS systems; benefits of GNSS to society; effective use of energy and other resources, including time; support to disaster management through warning and/or rapid response; protection of natural resources; improvement in emergency, search and rescue; improvement in maritime situational awareness; seamless transportation systems.

17:30 Adjourn

GALA NIGHT

Friday, 22 October

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09:00 - 11:00
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SECOND SESSION OF PROVIDERS' FORUM

Attended by only the providers. The primary purpose is to discuss any draft recommendations to the ICG from the Working Groups and to develop response or suggest amendments to the draft recommendations.

(in parallel) Meeting of Associate Members and Observers – as needed

The purpose is to discuss issues of common concern that have emerged during earlier sessions

11:00 – 11:30 Coffee Break

11:30 - 13:00	THIRD PLENARY SESSION OF THE ICG
	Co-Chairs: Mr. Mario Caporale, Italian Space Agency and Mr. Paul Verhoef, European Commission
	Attended 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.
	Consideration of proposed ICG recommendations
	Review and approval of meeting conclusions (joint statement, press release, etc.)
	Announcement for the Sixth Meeting of the ICG in 2011
	Discussion of Venues and Dates for ICG-7 (2012) and ICG-8 (2013)
	Closing Statements
13:00	Adjourn