



International Committee on
Global Navigation Satellite Systems

AGENDA

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

Hosted by the Government of Japan

Tokyo, Japan

4 – 9 September 2011

Sunday, 4 September

Venue: CENTRAL COMMON GOVERNMENT OFFICES No.4, Conference Room #1214, 12th Floor, 3-1-1, Kasumigaseki, Chiyoda-ku, Tokyo, 100-8970

16:00 – 17:00 Meeting with the Working Groups Co- Chairs

Co-chairs: Mr. Hirofumi KATASE, Japan and Mr. Kenneth HODGKINS, United States of America

Attended by only the Providers and the co-chairs of the Working Group. The primary purpose is to identify issues for discussion in the working groups.

17:00 – 18:00 FIRST SESSION OF THE PROVIDERS' FORUM

Co-chairs: Mr. Hirofumi KATASE, Japan and Mr. Kenneth HODGKINS, United States of America

Attended by only the Providers. The primary purpose is to discuss the agenda and meeting procedures for ICG-6 and the Seventh Meeting of Providers' Forum, draft recommendations to the ICG from the working groups and to develop response or suggest amendments to the draft recommendations, and address any other matters as required. Compose a temporary drafting group.

5 – 9 September 2011

Venue: MITA KAIGISHO, 2-1-8 Mita, Minato-ku, Tokyo

Monday, 5 September

09:00 – 09:30 On-site Registration

09:30 – 15:00 FIRST PLENARY SESSION OF THE ICG

Chair: Dr. Hiroshi YAMAKAWA, Japan

Attended by all. The primary purpose is for Providers to present the status and future plans for their systems, and for members, associate members and observers to also provide updates. All presenters will identify issues for discussion in the ICG and/or working groups

09:30 – 10:00 Welcome/Opening Remarks

09:30 Dr. Hiroshi YAMAKAWA, *Secretary-General, Secretariat of Strategic Headquarters for Space Policy, Cabinet Secretariat, Japan*

09:40 Mr. Yoshiya MUTO, *Deputy Director-General, Disarmament, Non-Proliferation and Science Department, Ministry of Foreign Affairs, Japan*

09:50 Ms. Sharafat GADIMOVA, *Office for Outer Space Affairs, United Nations Office at Vienna*

10:00 Adoption of Agenda

10:10 – 12:25 Providers System and Service Updates

10:10 The Quasi-Zenith Satellite System and the Multi-functional Transport Satellite Satellite-based Augmentation System

Dr. Satoshi FUJIWARA, Secretariat of Strategic Headquarters for Space Policy, Cabinet Secretariat and Mr. Jun GOMI, Satellite Applications and Promotion Centre, Japan Aerospace Exploration Agency, Japan

10:30 The Global Positioning System and the Wide-Area Augmentation System

Lt. Col. Robert ERICKSON Department of Defence, Air Force GPS Directorate and Mr. Kenneth ALEXANDER, Federal Aviation Administration, United States of America

10:50 The Global Navigation Satellite System and the System of Differential Correction and Monitoring

Mr. Sergey REVNIVYKH, International Cooperation Department, Federal Space Agency, Russian Federation

11:10 – 11:25 *Coffee Break*

11:25 The European Satellite Navigation System and the European Geostationary Navigation Overlay Service

Mr. Pieter DE-SMET, European Commission, Directorate-General Energy and Transport, European Union

11:45 Development of BeiDou Navigation Satellite System

Mr. Chengqi RAN, China Satellite Navigation Office, China

12:05 The Indian Satellite based Navigation System: description and implementation status

Mr. Aiylam Subramanian GANESHAN, Indian Space Research Organization, India

12:25 – 14:55 Presentations by Members, Associate Members and Observers on Matters of Interest to ICG

Attended by all. Opportunity for members, associate members and observers to present recent developments in their organizations and associations with regard to GNSS services and applications.

12:25 The Use of GNSS in the DubaiSat Programme

Mr. Omran SHARAF, Emirates Institution for Advanced Science and Technology, United Arab Emirates

12:40 Multi-GNSS within the IAG/IGS

Dr. Chris RIZOS, International Association of Geodesy, School of Surveying and Spatial Information Systems, the University of New South Wales, Australia

12:55 United Nations Programme on GNSS Applications

Ms. Sharafat GADIMOVA, Office for Outer Space Affairs, United Nations Office at Vienna

13:10 – 14:10 Lunch

14:10 – 14:55 Presentations by Members, Associate Members and Observers on Matters of Interest to ICG (continues)

14:10 Status of the Definition of the ARAIM and Combination with Augmentations

Mr. Stefan WALLNER, European Space Agency

14:25 COSPAR's Contribution to the Scientific Applications of GNSS

Mr. Pieter VISSER, Committee on Space Research, Delft Institute of Earth Observation and Space Systems, Delft University of Technology, the Netherlands

14:35 EUPOS Status

Mr. Gerd ROSENTHAL, EUPOS, Senate Department for Urban Development, Germany

14:45 – 14:55 Current CGSIC Concerns

Mr. Stephen Rick HAMILTON, CGSIC, U.S. Coast Guard Navigation Centre, United States of America

15:00 – 18:00 Applications and Experts Seminar

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 – 16:15 Session 1: Agriculture, Fishery and Information Technology Construction (Precise Positioning)

*Co-chairs: Dr. Ryosuke SHIBASAKI, Professor, Center for Spatial Information Science, The University of Tokyo, Japan and
Dr. Moon Beom HEO, Head of Satellite Navigation Department, Space Application and Future Technology Center, Korea Aerospace Research Institute, South Korea*

15:00 Trends in Precise Positioning and the Implications for Agriculture, Construction, Mining and Infrastructure Development in Australia

Mr. Matthew HIGGINS, IGSS Society, Australia

15:15 Precise Positioning Applications and Developments in Meeting Market Needs in Malaysia

Mr. Noordin AHMAD, National Space Agency, Malaysia

15:30 European GNSS Applications in the Areas of Precision Agriculture and Geographic Information System

Mr. Pieter DE SMET, European Commission

15:45 GNSS Application Practice in Fishery and Timing

Mr. Haizhong XIE, CEO, BeiDou Navigation Science and Technology Co., Ltd., China

16:00 Experimental Results of LEX Corrections Using Farming Machine

Mr. Masayuki KANZAKI, GPS Solutions Department Business and Product Development, Division Machinery and Infrastructure Headquarters, Hitachi Zosen Corporation, Japan

16:15 – 17:00 Group Photo/Coffee Break

17:00 – 18:00 Session 2: Geographic Information System and Disaster Mitigation

*Co-chairs: Dr. Ryosuke SHIBASAKI, Professor, Center for Spatial Information Science, The University of Tokyo, Japan and
Dr. Sorawit NARUPITI, Associate Professor, Transportation Engineering Department of Civil Engineering, Chulalongkorn University President, ITS Thailand, Thailand*

17:00 Role of Spatial Data in Disaster Management in Indonesia

Mr. Dody RUSWANDI, National Agency for Disaster Management, Indonesia

17:15 Current and Future Application of Global Navigation Satellite System in Vietnam

Dr. Pham Anh TUAN, Space Technology Institute, Vietnam Academy of Science and Technology, Vietnam

17:30 Earthquakes and other Natural Hazards: GNSS for Disaster Management

Dr. Kenneth HUDNUT, U.S. Geological Survey, United States of America

17:45 Real-time Disaster Response using Positioning Information and Quasi-Zenith Satellite System

Mr. Tetsuya KUSUDA, E-Community Division, Regional Business Sector, NTT Data Corporation, Japan

18:00 Adjourn

18:30 – 20:30 Welcoming Reception

Tuesday, 6 September

09:30 – 11:00 Applications and Experts Seminar (continues)

Session 3: Intelligent Transportation System and Location Based Services

*Co-chairs: Dr. Ryosuke SHIBASAKI, Professor, Center for Spatial Information Science, The University of Tokyo, Japan and
Mr. Matthew HIGGINS, President IGNSS Society, Australia*

09:30 Intelligent Transport System (ITS) and Its Applications of GNSS in Thailand

Dr. Sorawit NARUPITI, Transportation Engineering Department of Civil Engineering, Chulalongkorn University, ITS Thailand, Thailand

09:45 GNSS based Transportation Infrastructure Technology

Dr. Moon Beom HEO, Satellite Navigation Department, Space Application and Future Technology Center, Korea Aerospace Research Institute, South Korea

10:00 Main GLONASS Applications in the Russian Federation

Mr. Mark SHMULEVICH, Russian Space Systems Company, Russian Federation

10:15 An LBS Application System at Jiuzhaigou National Park – Management, Navigation, Search and Rescue Services

Mr. Baoguo YU, China Electronics Technology Group Corporation, China

10:30 GNSS and IRNSS: Signal in Space Utilization Plan

Mr. Aiylam Subramanian GANESHAN, Navigation Systems, Indian Space Research Organization, India

10:45 Expectations for Quasi-Zenith Satellite System in Mobile Mapping System

Dr. Jun-ichi TAKIGUCHI, Task Force and Feature Technology Incubation Section Mitsubishi Electric Corporation Kamakura Works, Japan

11:00 – 11:15 Coffee Break

PARALLEL SESSIONS

11:15 – 13:15	SECOND SESSION OF PROVIDERS' FORUM <i>Co-chairs: Mr. Hirofumi KATASE, Japan and Mr. Kenneth HODGKINS, United States of America</i> <i>Attended by only the providers.</i>	Meeting of Members, Associate Members and Observers <i>The purpose is to discuss issues of common concern that have emerged during earlier sessions</i>
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13:15 – 14:15 Lunch

14:15 Adjourn

15:00 – 18:00 Technical Tour

Wednesday, 7 September

09:30 – 17:30

WORKING GROUPS MEETINGS**PARALLEL SESSIONS**

09:30 - 13:00	WG A – Compatibility and interoperability <i>Co-chairs: Mr. David TURNER, United States of America and Mr. Sergey REVNIVYKH, Russian Federation</i>	WG C – Information dissemination and capacity building <i>Co-Chairs: Ms. Sharafat GADIMOVA, United Nations Office for Outer Space Affairs and Dr. Akio YASUDA, Professor Emeritus, Tokyo University of Marine Science and Technology, Japan</i>
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13:00 – 14:00 Lunch

WORKING GROUPS MEETINGS (continues in parallel sessions)

14:00 – 17:30	WG B – Enhancement of performance of GNSS services <i>Co-chairs: Mr. Rafael LUCAS RODRIGUEZ, European Space Agency and Mr. Narayanaswamy NEELAKANTAN, India</i>	WG D – Reference Frames, Timing and Applications <i>Co-chairs: Ms. Ruth NEILAN, International Association of Geodesy, Mr. John DOW, International GNSS Service and Mr. Matt HIGGINS, Fédération Internationale des Géomètres</i>
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15:45 – 16:00 Coffee Break

17:30 Adjourn

Thursday, 8 September

09:30 – 11:00 WORKING GROUP PARALLEL SESSIONS

Working groups to prepare conclusions and recommendations for the ICG consideration.

11:00 – 11:15 *Coffee Break*

11:15 – 16:15 SECOND PLENARY SESSION OF THE ICG

Chair: Dr. Hiroshi YAMAKAWA, Japan

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

11:15 **Presentation by WG A and Discussion**

12:15 **Presentation by WG B and Discussion**

13:15 – 14:15 *Lunch*

14:15 **Presentation by WG C and Discussion**

15:15 **Presentation by WG D and Discussion**

16:15 – 16:30 *Coffee Break*

PARALLEL SESSIONS:

16:30 – 17:30 **THIRD SESSION OF PROVIDERS' FORUM**

*Co-chairs: Mr. Hirofumi KATASE, Japan and
Mr. Kenneth HODGKINS, United States of America*

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.

**Meeting of Associate
Members and Observers
(as needed)**

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

18:30 – 20:30 **Reception**

Friday, 9 September

PARALLEL SESSIONS:

09:00 – 10:00 **FOURTH SESSION OF PROVIDERS' FORUM**

*Co-chairs: Mr. Hirofumi KATASE, Japan and
Mr. Kenneth HODGKINS, United States of America*

Attended by only the Providers. The primary purpose is to discuss any draft recommendations to the ICG from

**Meeting of Associate
Members and Observers
(as needed)**

*The purpose is to discuss
issues of common concern*

the working groups and to develop response or suggest amendments to the draft recommendations.

that have emerged during earlier sessions.

10:00 – 13:00 **THIRD PLENARY SESSION OF THE ICG**

Chair: Dr. Hiroshi YAMAKAWA, Japan

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.

09:30 **Opening Remarks**

Dr. Hiroshi YAMAKAWA, Japan

Consideration of proposed ICG recommendations

11:00 – 11:15 *Coffee Break*

Other matters

Review and approval of meeting conclusions (joint statement)

Announcement for the Seventh Meeting of the ICG

Ms. Li WANG, China Satellite Navigation Office, International Cooperation Research Centre, China

Proposals for the Meetings of the ICG in 2013 (ICG-8) and 2014 (ICG-9)

Closing Statements

Adjourn