



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

**5 – 9 September 2011
Tokyo, Japan**

Joint Statement

The Sixth Meeting of the International Committee on Global Navigation Satellite Systems (ICG) was held in Tokyo, Japan from 5 to 9 September 2011, to continue reviewing and discussing developments in global navigation satellite systems (GNSS) and to allow ICG members, associate members and observers to address recent developments in their organizations and associations with regard to GNSS services and applications. ICG also addressed GNSS space technology applications to agriculture, fishery, information technology construction (precision positioning), geographic information system (GIS), disaster mitigation, intelligent transportation system and location-based services.

The Meeting was hosted by the Government of Japan. Attendees included China, India, Italy, Japan, Malaysia, Nigeria, the Russian Federation, the United Arab Emirates, the United States of America, and the European Union, as well as the following intergovernmental and non-governmental organizations: Civil Global Positioning System Service Interface Committee (CGSIC), Committee on Space Research (COSPAR), European Space Agency (ESA), European Position Determination System (EUPOS), International Federation of Surveyors (FIG), International Association of Geodesy (IAG), IAG Reference Frame Sub-Commission for Europe (EUREF), International Bureau of Weights and Measures (BIPM), International Earth Rotation and Reference Systems Service (IERS), International GNSS Service (IGS). The representatives of the United Nations Office for Outer Space Affairs and International Telecommunication Union (ITU) also attended. Australia attended as an invited observer. The Interagency Operations Advisory Group (IOAG) and the Federation Aeronautic International (FAI) also attended and were recognized by ICG as a new observer and associate member respectively. The representatives of Indonesia, Vietnam, Thailand, and South Korea also participated.

ICG recalled that the General Assembly, in its resolution 65/97 of 10 December 2010 welcomed the progress made by the ICG towards achieving compatibility and interoperability among global and regional space-based positioning, navigation and timing systems and in the promotion of the use of global navigation satellite systems and their integration into national infrastructure, particularly in developing countries, and noted with satisfaction that the ICG had held its fifth meeting in Turin, Italy, from 18 to 22 October 2010, which was jointly organized by Italy and the European Commission.

ICG noted that the working groups focused on the following issues: compatibility and interoperability; enhancement of the performance of GNSS services; information dissemination and capacity-building; and reference frames, timing and applications.

ICG noted that the Working Group A on compatibility and interoperability addressed all four areas of its current work plan through an intersessional meeting held in June, 2011 at the UN Office in Vienna, and the two days of presentations and discussions conducted during ICG-6. Interference detection and mitigation, and open service provision and performance monitoring by multi-GNSS networks were the major areas of focus, leading to three of the working group's four recommendations. The session on multi-GNSS monitoring was held jointly with working groups B and D, as was the session on interoperability. This resulted in constructive dialogue with these working groups and an agreed plan of practical steps including establishment of a subgroup to collectively investigate international GNSS monitoring and assessment.

The Working Group B on enhancement of the performance on GNSS services discussed among other aspects the disaster information dissemination. Satellite navigation systems may provide essential contributions but the service concept still needs further elaboration. Due to the importance of this issue a new work item was introduced in the work plan of the group. In addition the existing actions in the current work plan were confirmed and were also reflected by the working group members' presentations and good progress was shown in various areas including indoor positioning, signal authentication, precise positioning, transportation, maritime and space applications. Since more and more application-related issues are introduced and discussed within WG-B it was agreed to form a dedicated subgroup on applications.

The Working Group C on information dissemination and capacity-building addressed further aspects of its workplan, including training for capacity-building in developing countries; promoting the use of GNSS technologies as tools for scientific applications; the International Space Weather Initiative; and regional workshops on applications of GNSS. A new item on education and training programmes on GNSS was added to the workplan.

The Working Group D on reference frames, timing and applications completed development of templates describing the geodetic and timing references for the navigation satellite systems currently represented in the ICG. The WG also proposed that the templates be published on the ICG website. ICG also welcomed progress by BIPM work towards production of "Rapid UTC" as a more immediately accessible time reference that could be used to better harmonize the UTC broadcast by each GNSS. The WG recommended that interested System Providers supply data from their respective Monitor Stations for inclusion in regular processing with the International GNSS Service network of reference stations. Such inclusion is aimed at improving the alignment of the various GNSS reference frames with each other and with the International Terrestrial Reference Frame. An important new development was the endorsement by the ICG of the IGS Multi-GNSS Experiment, which follows on from the ICG's previous endorsement of the Multi-GNSS campaign in Asia and Oceania.

ICG accepted the invitation of China to host its Seventh Meeting in Beijing, from 4 to 9 November 2012. The Office for Outer Space Affairs, in its capacity as the Executive Secretariat of ICG and its Providers' Forum, will assist in the preparations for the meeting and for interim planning meetings and working group activities. ICG noted the expression of interest by the United Arab Emirates to host the Eighth Meeting of ICG in December, 2013.