International Committee on
Global Navigation Satellite Systems

Tenth Meeting of the Providers' Forum

United Nations Office at Vienna, Vienna International Centre

10 June 2013
Vienna, Austria

Summary of Discussions

The Tenth Meeting of the Providers' Forum, co-chaired by China and the United States, was held on 10 June 2013 in Vienna, Austria in conjunction with the 56th Session of the Committee on the Peaceful Uses of Outer Space (COPUOS), 12 – 21 June 2013. The meeting agenda is attached (see Annex I) herewith. China, Japan, the Russian Federation and the United States, as well as the European Union, were represented at the meeting. The list of participants is attached (see Annex II) herewith.

Open service information dissemination and Service performance monitoring

The representative of the United States briefed the Meeting on the United States Coast Guard Navigation Centre that operates services and provides information to enhance the safety, security and efficiency of civil Global Positioning System (GPS) users. It was noted that methods to distribute information would have to be coordinated among system providers to facilitate common use by users, and that consensus would need to be reached on ways to disseminate the message information.

The Providers' Forum noted that the Working Group C "Information Dissemination and Capacity Building" of the International Committee on Global Navigation Satellite Systems (ICG) had included an action item to its workplan to identify methods of the information dissemination available from global navigation satellite systems (GNSS) to the public, governmental, scientific and commercial users of GNSS, including web-presence materials to document, and publicize the related activities.

The representative of the Russian Federation briefed on the Information-Analytical Centre of the Russian Federal Space Agency that provides users with the information on current status and planned changes in GLONASS (GLObal Navigation Satellite System of the Russian Federation) and GPS systems, including quality estimation of the navigation satellites operation based on monitoring of information from systems in real time or posteriori modes, estimation of radionavigation field characteristics compatibility and users navigation support. It was noted that the ICG Working Group A "Compatibility and Interoperability" was working on the GNSS open service performance standard template, and therefore it was proposed to consider the standardisation of the information and its dissemination within the Working Group.

The representative of China noted that it was important to continue the exchange of information on the GNSS open service performance in the Working Group A and that it would contribute to the development of the template.

The representative of Japan referred to the description of the QZSS navigation messages to enhance the system's value to the user community, and reiterated their contribution to both working groups.

The meeting agreed that the Working Group C should address the information dissemination in coordination with the Working Group A, which would continue its work on the template describing future services.

Spectrum protection: interference detection and mitigation

The Providers' Forum noted with appreciation that the 2nd ICG Workshop on GNSS Interference Detection and Mitigation (IDM) had been held in conjunction with the Institute of Navigation (ION) Pacific PNT 2013, in Honolulu, Hawaii, on 21 – 22 April 2013.

The co-chairs of the Working Group A provided a brief report on the workshop, including the outcomes and conclusions. It was noted that the detailed presentation on the workshop would be made at the Working Group A intersessional meeting on Wednesday, 12 June 2013, Vienna, Austria. It was also noted that the workshop was attended by 26 participants and a total of 6 presentations, including the System Providers' updates, were made. It was noted that additional IDM workshops were proposed to be held in Hong Kong and/or Geneva in 2014.

The Providers' Forum took note of the ICG Workshop on Interoperability held on 25 – 27 April 2013 in conjunction with the ION Pacific PNT 2013, in Honolulu, Hawaii. It was noted that 40 participants attended the workshop, and 16 presentations were made.

A brief presentation from the Working Group A co-chairs on both workshops is contained in the Annex III attached herewith.

ICG Information Centres

The ICG Executive Secretariat informed that an education curriculum on GNSS had been made available to the regional centres for space science and technology education, affiliated to the United Nations. It was noted that the UN-affiliated Regional Centres for Africa, located in Morocco and Nigeria, were scheduled to begin the first nine-month post-graduate course on GNSS in September 2013 and in January 2014 respectively.

The providers were invited to contribute by giving lectures on the systems and their applications.

ICG Information Portal

The ICG Executive Secretariat informed that the domain name www.icgsecretariat.org was no longer active, and that www.unoosa.org should be used for the ICG Information Portal.

The providers were requested to provide their points-of-contact to work with the Executive Secretariat on the context within the current webpages of the ICG Information Portal, making the information more *user-friendly* to the ICG members/everyone.

The Providers' Forum took note that the International Telecomminication Union (ITU) was hosting the website for the Subgroup of the Working Group A, and that the link should be included in the ICG Information Portal.

Report on a multi-GNSS demonstration project in the Asia/Oceania region

The representative of Japan delivered a presentation on "The current status of Asia-Oceania multi-GNSS demonstration campaign" on behalf of the Multi-GNSS Asia (MGA) Secretariat. It was noted that the 4th Asia Oceania Regional Workshop on Global Navigation Satellite Systems (GNSS), held on 9 – 10 December 2012, in Kuala Lumpur, Malaysia, discussed new application experiments of GNSS. It was also noted that currently 24 organizations participate in MGA. A brief presentation is contained in the Annex IV.

Glossary of terms related to the work of the ICG and the Providers' Forum

The ICG Executive Secretariat informed that the electronic version of the Glossary was available at the ICG Information Portal, and would be updated/revised as more information becomes available.

Future role and work of the ICG and its Providers' Forum

The Meeting participants considered the summary of discussions concerning the "Future of the ICG" and the draft mission statement for the ICG.

Mission Statement

The Providers' Forum recommended the approval of a mission statement, which is contained in Annex V, for dissemination to ICG and for consideration at the Eighth meeting of the ICG in Dubai, in November 2013.

Users' Forum

The providers reviewed and discussed the possible establishment of a Users' Forum.

It was suggested to consider rebalancing the ICG meeting, and figure out how to join users into ICG to ensure a balance between the GNSS users and the providers.

Regarding the working methods of ICG, several delegations expressed concern over the efficiency of the work of the ICG. A suggestion was noted for the Providers' Forum to act as a governing board of ICG, which would review all recommendations, but with final decision on recommendations made by the ICG. It was also noted that clarification was needed on a Users' Forum, including definition of membership.

It was also suggested that providers should focus on getting user input to gain insight into users' needs/requirements. It was noted that the website could be used for the interaction between the Providers' Forum and the GNSS users. A reference was also made to the GPS website (www.gps.gov) that was used to reach out to users, and it was noted that an interaction with users varies depending on user feedback.

Some members called for concluding "Future of ICG" discussions at the Eighth meeting of the ICG. A view was further expressed that ICG was trying to consider many issues within a limited period of time during the ICG annual meeting (one week), and that not enough work was being done outside of the these meetings. It was noted that sequencing of the work is what is most important.

The Providers agreed that it is important to hear input from the users and associate members on specifically what they are doing to collect user requirements, and to get input from associate members on how the ICG is helping them accomplish their mission. Therefore, the 2nd meeting of the Providers Forum during ICG-8 will be changed to allow for this discussion.

To accommodate this, the Providers' Forum suggested rescheduling of the agenda items of the Eighth meeting of the ICG as follows (see Annex VI):

- Saturday, 9 November 2013: The Meeting of the Providers' Forum beginning at 13:00 and the Meeting with the co-chairs of the Working Groups at 16:00;
- Monday, 11 November 2013: Providers meet with Members/Associate Members/Observers to discuss/collect users' requirements;
- Wednesday, 13 November 2013: Providers' Forum meets if needed; and report on the meeting of Members/Associate Members/Observers provided if necessary.

ICG Executive Secretariat

Regarding the support to be provided to the ICG Executive Secretariat, the Providers' Forum agreed to identify the points-of-contact who will work with the Executive Secretariat on matters related to the ICG, and also distribute information to their delegations. An idea was also proposed for the ICG host country to send a person to Vienna, the year prior to the annual ICG meeting, to work with the Secretariat on preparation activities for the meeting. Another proposed suggestion was for the ICG Executive Secretariat and/or ICG points-of-contact to keep track of the ICG recommendations.

It was noted that the ICG Executive Secretariat will prepare the list of the Working Group recommendations that would also be included in the ICG Information Portal webpage dedicated to the Working Groups.

Selection of chairperson/co-chairs for the Providers' Forum meetings

The Providers' Forum agreed that the current co-chairs (China and the United States) of the Providers' Forum would co-chair the Eleventh meeting of the Providers' Forum in Dubai, United Arab Emirates, in November 2013. While a long term plan for a chair/co-chairs of the Providers' Forum would be discussed in the forthcoming meeting in Dubai.

Draft provisional agenda for the Eleventh meeting of the Providers' Forum

The agenda for the Eleventh meeting of the Providers' Forum to be held in Dubai, UAE, in November 2013 was reviewed and can be found in Annex VII.

Other matters

The Providers' Forum took note of the presentation entitled "Enabling a Fully Interoperable GNSS Space Service Volume" of NASA JPL that will also be presented at the ICG Working Group B "Enhancement Performance of GNSS Services" intersessional meeting on 12 June 2013, Vienna, Austria. The Presentation is attached herewith (see Annex VIII).