

Summary of discussions concerning the

"Future of the International Committee on Global Navigation Satellite Systems"

At the seventh meeting of the Providers' Forum held in conjunction with the sixth meeting of the International Committee on Global Navigation Satellite Systems (ICG), in Tokyo, Japan, 5 – 9 September 2011, the topic of the future of ICG was raised and discussed. This included a discussion on: the efficiency of the working groups, the designation of working group chairs, possible establishment of a Users' Forum, the status of recommendations and conclusions made by the Providers' Forum and ICG, and the future of the ICG Secretariat. The Providers' Forum agreed to adopt a proposal by the co-chairs to add an agenda item to the next Providers' Forum meeting on the "Future role and work of ICG and its Providers' Forum", and that specific proposals could be made at that time. Furthermore, the co-chairs proposed to include an agenda item at the United Nations International Meeting on the applications of global navigation satellite systems (GNSS), in Vienna, Austria, 12 -16 December 2011, giving experts an opportunity to exchange views on an informal basis regarding the future work of the ICG and its Providers' Forum.

During the United Nations International Meeting on GNSS held 12 -16 December 2011 in Vienna, Austria, a small group of experts met and brainstormed ideas related to the future of the ICG. At the conclusion of the meeting, a presentation was put together summarizing the discussion and different options that were raised. This summary was not exhaustive but meant to capture the essence of what was discussed and pave the way for further discussion at the eighth meeting of the Providers' Forum on 4 June 2012 in Vienna, Austria.

Discussion on the future of the ICG continued during the first planning and organizational meeting for the seventh meeting of the ICG, held on 13 February 2012 in Vienna, Austria. A presentation entitled "Key considerations on the future of the ICG" was given by the United States of America, which was based on the summary of the December 2011 informal meeting. The topics were classified into top priorities, organizational issues, and questions to be addressed. Since time was limited, the providers decided to convene the next discussion in conjunction with China's Satellite Navigation Conference 15-19 May 2012, in Guangzhou, China.

The informal meeting of the Providers' Forum was held on 17 May 2012 on the margins of the Third China Satellite Navigation Conference (CSNC2012) in Guangzhou, China. The discussion of the "Key considerations on the future of the ICG" was continued. To facilitate further discussion, a table was created on "Key considerations on the future of the ICG". The issues of the nature of working groups versus study groups, the designation of working group chairs, and the Users' Forum were identified and discussed.

At the eighth meeting of the Providers' Forum held on 4 June 2012 in Vienna, Austria, the future role and work of the ICG and its Providers' Forum was discussed as an agenda item. A report of the informal meeting of the Providers' Forum held in May 2012 on the margins of CSNC2012, was presented by the co-chairs of the Providers' Forum. A summary of the other meetings was also noted and a list of issues/questions for prioritization was presented. During this meeting, the providers discussed and reviewed the issues/questions and organized them into the following three categories: (1) currently under consideration (easy to implement); (2) further consideration will be given; (3) more in-depth study to be conducted.

The following issues/questions were categorized as "under consideration and easy to implement":

- 1. The ICG, as a platform for open discussions and information exchange, is a great success. It provides a better understanding of general trends in user needs, applications and GNSS development. Informally the providers and the represented users take findings into account in their plans and programs, to improve performance, compatibility and interoperability. Communication among system providers has been improved by the Providers' Forum;
- 2. Some ICG recommendations aimed at providers have already become principles, such as compatibility, interoperability and transparency in the provision of open services:
- 3. Recommendations to organizations outside the ICG should be targeted to specific actors and include specific actions;
- 4. Ensuring that the ICG is properly structured will require a review of:
 - Procedure for selection of chairs or co-chairs;
 - Terms of Reference of the Providers' Forum in relation to current working groups;
 - Maintenance of permanent working groups or ad hoc working groups;
 - Procedures for plenary and intersessional meetings;
 - Executive Secretariat;
- 5. The number of user communities represented at the ICG should be increased;
- 6. Compatibility efforts should be separated from interoperability efforts;
- 7. The number of working groups should be limited;
- 8. Retaining the existing working groups structure, meetings could still be organized differently to maximize problem solving;
- 9. Working groups could be required to develop recommendations prior to ICG meetings rather than during ICG meetings.

The questions about the establishment of a Users' Forum, which includes its role within the ICG, its structure, its membership, its terms of reference, and its methods of work, were put forward for consideration at the Providers' Forum meeting, 5-9 November 2012 in Beijing, China. It was noted that the main objective of the Users' Forum would be to discuss common problems, and provide feedback to the providers on what could be done to increase the efficiency of GNSS applications in the multi-GNSS environment. It was also noted that the ICG members/associate members and observers should be contacted and informed to be prepared to lead discussions about the Users' Forum and to present their views and recommendations.

The view was expressed that to ensure the working groups achieve progress and meet their milestones, a permanent chair is needed for some working groups. Also it is often useful, and perhaps inevitable, to establish a sub-group (study group and task force) under a working group to develop proposals to solve particular problems.

The eighth meeting of Providers' Forum also noted that consideration should be given to the staff capacity of the ICG Executive Secretariat, assisting with the planning and organization of the meetings of the ICG and Providers' Forum, and its working groups in the future structure of the ICG.

An agenda item on the future role of the ICG provoked a healthy discussion at the Ninth meeting of the Providers' Forum, held 5-9 November 2012 in Beijing, in conjunction with the seventh meeting of ICG. During this meeting, the Providers' Forum agreed to the following conclusions:

- 1. The function of the Office for Outer Space Affairs as the Executive Secretariat should continue for now;
- 2. General consensus that there would be benefit to having a Users' Forum. The details of how it would be integrated need to be discussed and considered before a final decision is made;
- 3. No changes to the working groups should be made at this time;
- 4. Discussion on selection of Providers' Forum co-chairs will occur at the next Providers' Forum meeting.

In conjunction with the seventh meeting of ICG, a meeting of the members, associate members and observers took place. During this meeting, a presentation was made by the cochair of the Providers' Forum, summarizing the ideas discussed by the providers over the past year, concerning the future of the ICG. The intent was to obtain feedback on some of the ideas being discussed by the providers. The members, associate members and observers offered the following comments:

- 1. Suggestion for ICG to include an agenda item during the plenary session for providers to comment on the status of past recommendations;
- 2. Associate members and observers agreed to help share information on the value of ICG in the various organizations;
- 3. Recommendation for ICG to adopt a User's Forum (or other terminology) as a way for users to have input in the ICG:
 - a. Would consist of international non-governmental (NGO)'s (that would currently qualify as associate members);
 - b. Would support increasing awareness and adoption of GNSS, and help users address problems in fully exploiting GNSS across a broad range of users and in all nations;
 - c. Would enable users to help lobby on issues of concern to the GNSS community.

At the planning meeting for the tenth Providers' Forum meeting, held 18 February 2013 in Vienna, Austria, the participants continued discussions about a Users' Forum, noting that the process of establishing such a group should not be complicated. It was emphasized that all user groups should be well represented by the Users' Forum. It was also suggested that developing a Mission Statement for the ICG would be helpful in identifying how the Users' Forum fits in the construct of the ICG.

The tenth meeting of the Providers' Forum was held on 10 June 2013 in Vienna, Austria. At that meeting, a draft Mission Statement was introduced, and recommended for review and consideration at the eighth meeting of the ICG, 9 – 14 November 2013 in Dubai, United Arab Emirates. A view was expressed that ICG was trying to consider many issues in a limited period of time (one week during the ICG annual meeting), and that not enough work was being accomplished outside of the meetings. One suggestion was offered for the ICG Executive Secretariat and/or ICG points of contact to keep track of the ICG recommendations. Another idea that was floated is 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 upcoming meeting.

The Users' Forum was also discussed. It was suggested that the providers focus on getting user input in order to better understand the users' needs and requirements. It was agreed that it is important to hear input from the users and associate members specifically about 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. The providers therefore agreed to change the agenda for the eighth meeting of the ICG to include a second plenary

session in place of the second Providers' Forum session, to allow for this discussion.

A discussion and decision on the selection of future Providers' Forum co-chairs was postponed until the eleventh meeting of the Providers Forum, in conjunction with the eighth meeting of the ICG in Dubai, 9-14 November 2013.

At the eleventh meeting of the Providers' Forum held in Dubai, on 9, 11 and 13 November 2013, the providers agreed to co-chair the Providers' Forum meetings on a 2-year rotational basis, and established a schedule for the next several years through 2017 and will confirm the remaining schedule through 2019 in the coming months.

The ICG adopted a Mission Statement contained in the Annex to this summary.

Mission Statement of the International Committee on Global Navigation Satellite Systems

The International Committee on Global Navigation Satellite Systems (ICG), established in 2005 under the umbrella of the United Nations, promotes voluntary cooperation on matters of mutual interest related to civil satellite-based positioning, navigation, timing, and value-added services. The ICG contributes to the sustainable development of the world. Among the core missions of the ICG are to encourage coordination among providers of global navigation satellite systems (GNSS), regional systems, and augmentations in order to ensure greater compatibility, interoperability, and transparency, and to promote the introduction and utilization of these services and their future enhancements, including in developing countries, through assistance, if necessary, with the integration into their infrastructures. The ICG also serves to assist GNSS users with their development plans and applications, by encouraging coordination and serving as a focal point for international information exchange.