

Recommendation 1 for Committee Decision

Prepared by: Working Group B

Date of Submission: 08 November 2012

Issue Title: Statement of Interest in GNSS Space Service Volume

Background/Brief Description of the Issue:

WG-B has followed in the last year Recommendation 6 of ICG6 entitled “Interoperable GNSS Space Service Volume”. WG-B has addressed this topic at a technical level at its interim Meeting in June 2012 in Vienna and has identified the advantages of an Interoperable GNSS SSV for the Space user community.

Discussion/Analyses:

In order to progress further towards an interoperable GNSS Space Service volume the contribution of the different system providers is an essential element. Only with their direct involvement in a Space Service Volume definition process it is possible to achieve a harmonization of the qualitative and quantitative characteristics of such an interoperable GNSS Space service volume.

Recommendation of Committee Action:

Recognizing the advantages of an Interoperable GNSS SSV for the Space user community, ICG is invited to take notice that WG-B encourages all system providers to identify their interest in contributing to a future interoperable GNSS space service volume. The qualitative and quantitative specification of such a future, interoperable GNSS space service volume is recommended to be coordinated through the on-going GNSS Space Service Volume initiative within ICG WG-B. This process will need the involvement of the system providers in order to allow for a high level of interoperability in the Space Service Volume.

The committee recommends that a definition of an interoperable GNSS SSV be introduced into the ICG Glossary of Terms.

Recommendation 2 for Committee Decision

Prepared by: Working Group C

Date of Submission: 08 November 2012

Issue Title: Dual Frequency Multi Constellation RAIM for Maritime Integrity

Background/Brief Description of the Issue:

The deployment of interoperable, dual frequency signals provided by multiple satellite navigation systems opens up new possibilities to provide users with new integrity solutions.

Discussion/Analyses:

Initial results presented to WG-B indicate that integrity for Maritime applications could be provided by Dual Frequency Multi Constellation (DFMC) Receiver Autonomous Integrity Monitoring (RAIM). DFMC RAIM might be a solution to provide Maritime integrity (down to coastal and port approach operations) without additional infrastructure investment at system provider side over wide areas, thus including polar regions that are expected to gain in importance in the Maritime Community as well as regions where so far there is no SBAS service available. In order to enhance the robustness of DFMC RAIM the fusion of the GNSS solution with other sensors (e.g. inertial and/or present e-Navigation means) can be considered.

Recommendation of Committee Action:

ICG is invited to take notice that WG-B plans to involve an International Maritime Organization (IMO) representative in order to propose the consideration of Multi-constellation Dual Frequency classical RAIM solutions to provide integrity to these users allowing for coastal and port approach maritime operations in regions where SBAS service is not provided. Fusion of the GNSS RAIM solution with backup sensors may be recommended to enhance the robustness of the positioning solution.

Recommendation 3 for Committee Decision

Prepared by: Working Group B

Date of Submission: 08 November 2012

Issue Title: Emergency Warning Service as New Message Broadcast

Background/Brief Description of the Issue:

In relation to WG-B workplan item B6 and in view of WG-B recommendation 3 of ICG6, WG-B addressed in its interim meeting in Vienna possible new message broadcasts to enhance and/or extend the outreach of GNSS services. During that meeting the Emergency Warning Service (EWS) was identified as a most promising candidate that can be enabled through additional message broadcasts within satellite navigation signals.

Discussion/Analyses:

At present the definition of new navigation/augmentation signals is ongoing, e.g. the SBAS L5 signal. Potentially available spare data capacity of new signals could be made use of to implement additional services, where an Emergency Warning Service (EWS) and the dissemination of ARAIM related Integrity Support Message (ISM) has attracted the particular interest of ICG WG-B.

Recommendation of Committee Action:

ICG is invited to take notice that WG-B plans to propose to SBAS IWG the consideration of an Emergency Warning Service (EWS) as new message broadcast within the new SBAS L5 signals currently under definition. As the ARAIM concept and the related ISM definition materializes, ISM dissemination through this signal may be also considered in the future and brought to the attention of SBAS IWG.

Recommendation 4 for Committee Decision

Prepared by: Working Group B Application Subgroup

Date of Submission: 08 November 2012

Issue Title: Application Subgroup meeting in the margin of the Munich Satellite Navigation Summit 2013

Background/Brief Description of the Issue:

The WG-B Application Subgroup was established at ICG6 in order to support Action B4 of the Work Plan of WG-B. The group held its first meeting on “LBS and Mass Market Applications” on 12/13 March, 2012 in Munich, Germany. Several core application areas shall be monitored by this group in the future.

Discussion/Analyses:

Until ICG8 WG-B agreed that the WG-B Application Subgroup shall dedicate a particular focus on Personal Navigation and Transportation (road, rail, water) applications. The group will continue to investigate together with users representing the identified applications areas to which extent their application needs are already served today by the different satellite navigation systems and about the enabling techniques in order to provide them with better service in the future.

Recommendation of Committee Action:

In order to promote the global multi-GNSS applications in the area of Personal Navigation and Transportation (road, rail, water) and to understand on their additional demands, ICG participants are invited to identify appropriate users and/or institutions representing the before mentioned application sectors by end of Dec. 2012. The 2nd Application SG meeting focusing on Personal Navigation and Transportation applications will be held on Feb. 26, 2013 [tbc] in the margin of the Munich Satellite Navigation Summit.