

Recommendation for Committee Decision

Prepared by: IGMA Task Force, WG-S

(Working Group, or individual Members or Associate Members)

Date of Submission: October 19, 2023

Issue Title: Approval of the IGMA Joint Trial Project Terms of Reference (ToR) revision

Background/Brief Description of the Issue:

IGMA Joint Trial Project (JTP) with International GNSS Service (IGS) was proposed in ICG-10, November 2015, and recommended as the recommendation 10A/D.4.1. The following paragraph is extracted from the recommendation.

Recognising:

- The need for a global GNSS monitoring and assessment capability to assist with public confidence in GNSS service provision and interoperability.
- The role the International GNSS Service (IGS) has played in producing precise GNSS products since its inception in 1994, noting the evolution of products and services over time to meet user segment requirements.
- Utilizing existing resources such as IGS and providers monitoring and assessment systems (which may include signal quality monitoring) could maximize benefits in the early stage of the IGMA roadmap.

The ICG recommends that the IGMA TF and IGS initiate a joint trial project that will demonstrate a global GNSS Monitoring and Assessment capability.

IGMA JTP is aiming to validate the concepts of IGMA, which monitor GNSS performance and disseminate the assessment results from an international, trustworthy body, i.e. ICG, utilizing existing infrastructures and capabilities with IGS. The initial phase of IGMA JTP selected a limited set of four system level parameters: orbit and clock error, Signal in Space Ranging Error (SISURE), PDOP, and UTC Offset Error (UTC OE), and adopted a post-processing approach. User level performance parameters such as user positioning, timing accuracy of a combined solution with multiple constellations, and also real-time monitoring and assessment will be added into the later phase of the JTP.

The TF established the original ToR in 2016, and IGS Governing Board (GB) endorsed IGS participation in the JTP through the IGS Monitoring Working Group, which was also created in 2016.

Discussion/Analyses:

IGMA TF is now focusing on establishing harmonized, common calculation methodologies with regard to the selected four parameters. The technical details in the ToR needed to be updated as the calculation methodologies discussion proceeded. In addition, there were some inconsistencies in the ToR due to the progress of the JTP.

IGMA TF prepared the draft revision of ToR and finalized it through “Line by Line review” on the 29th of August 2023 and agreed that it was ready for approval.

The ToR revision is now under IGS review until the end of October 2023, then the result of IGS review will be reported to IGS Governing Board (GB) and the continuous participation of IGS Monitoring WG is to be endorsed by the GB.

Recommendation of Committee Action:

The Working Group on Systems Signals and Services recommends that the ICG adopt new revisions to the Terms of Reference Document for the IGMA Joint Trial Project that were agreed to by the IGMA Task Force in August 2023. If IGS, as the outcome of the internal review process, would have comments on the ToR revision, they should be notified to the ICG. In case no substantial changes are proposed to it, the adoption at ICG-17 by ICG would be effective.

Members Consensus Reached _____ x _____; **No Consensus Reached** _____

Chairperson Signature: _____ **Date:** _____