Recommendation for Committee Decision

Prepared by: **Working Group D, in cooperation with Working Group B**

Date of Submission: 14th of October 2022

Issue Title: Creation of a WG-D Task Force, "Applications of GNSS for Disaster Risk Reduction".

Background/Brief Description of the Issue:

Background: GNSS-based techniques are extremely useful in monitoring natural hazards and disasters. Traditional GNSS techniques, already well-established, allow the live monitoring of ground motion. Recently developed, GNSS-based remote sensing (ionospheric monitoring) enables a much wider coverage of disasters through the atmospheric waves they induce; this is particularly useful to cover oceans, and therefore for tsunami early warning.
Need: There is a growing need to coordinate GNSS-based efforts for disaster risk reduction. This has been acknowledged by multiple organisations already (see, *e.g.*, IUGG's GeoRisk commission created in 2000, and IUGG's 2015 Resolution IV which sparked the creation of IUGG's IAG's GGOS Geohazards Focus Group). This is also in alignment with the United Nations Sustainable Development Goals and Sendai Framework for Disaster Risk Reduction.

Discussion/Analyses
Multiple ICG Members, Associate Members, and Observers already provide efforts towards disaster risk reduction. Some tools are already operational to this effect. To this day, there exists no recommendations or focus groups to develop GNSS-based disaster risk reduction within ICG. IGS and NASA JPL presented a use case at ICG-16, demonstrating an operational GNSS-based ionospheric monitoring software; this would serve as an initial use case, and other members are encouraged to contribute additional use cases to this Task Force. More generally, this Task Force would centre on novel applications of GNSS data and infrastructure to support sustainable development and disaster risk reduction. WG-B fully supports this recommendation.

Recommendation of Committee Action:

- *WG-D recommends the creation of a new Task Force, "Applications of GNSS for Disaster Risk Reduction"; the Task Force will coordinate efforts on using GNSS for disaster risk reduction.*
- *WG-D recommends this Task Force be hosted by WG-D, co-chaired by one or more members of WG-D, and co-chaired by one or more members of WG-B.*

Members Consensus Reached_____; **No Consensus Reached**_____

Chairperson Signature: _____ **Date:** _____