



Minutes of the Meeting of IAG JWG 2.1.1 Establishment of a global absolute gravity reference system

**GGHS2016 “Gravity, Geoid and Height Systems 2016”
September, 20th 2016, Thessaloniki, Greece**

Chair: H. Wziontek (Germany)

The objectives of the joint working group (JWG) and possible work packages were presented by H. Wziontek.

The JWG will focus on a roadmap for the realization of IAG resolution no. 2 of 2015.

Repeated international comparisons of absolute gravimeters under guidance of CIPM and regional metrology organizations (RMO) will ensure a homogenous and traceable absolute gravity reference. Reference stations with repeated absolute gravity measurements and preferably continuous recording of temporal gravity changes will provide the basic infrastructure. The transfer of the results of the international comparisons to other absolute gravimeters will be realized at these stations, but needs distributed observations of different instruments. Standard models for the processing of gravity observations must be defined or updated, in cooperation with the GGOS Bureau of Standards and Conventions. The following work packages were proposed:

1. Selection of reference stations, update of station surveys from 2011,
2. Homogenous processing of observations, update of the IAGBN standards 1992,
3. AG Comparisons: Further cooperation with CCM-WGG, definition of unique processing rules including the treatment of systematic effects,
4. Assessment of the stability of the comparison reference value over time,
5. Discussion of the role of non-NMI/DI instruments in regional and/or additional comparisons,
6. Evaluation of IGSN 71 stations and recommendation for the further use and / or re-observation,
7. Availability of the new system for applications in geodesy and geophysics.

The response of the questionnaires of 2011 to the international community with AG and SG instruments was recapped and was proposed to be updated. For further discussion, a board at the forum of the AGrav database is proposed: <http://agrav.bkg.bund.de/forum/>

Unfortunately, due to limited time, no discussion of the above mentioned items was possible.