Contribution ID: **10** Type: **Oral**

Confirmation of the relative gravity measurement by the absolute gravimeter at NIMT

Thursday 25 May 2017 09:20 (15 minutes)

The local gravity measurement using relative gravimeter was confirmed to the reference absolute gravity station by National Institute of Metrology (Thailand); NIMT. Five known absolute gravity value stations were used in this confirmation. By applying the A-B-A measurement pattern, the time dependent of the relative gravity value at the reference station was calculated. Then the short term drift correction was introduce to the relative gravity reading of the loop. The relative gravity difference (Δg_{rel}) was compared to the absolute gravity difference (Δg_{abs}) between A-B stations. Five measurement loops were given the maximum difference between Δg_{rel} and Δg_{abs} of 0.012 mGal which is less than the absolute gravity uncertainty value of the station in that measurement loop. Therefore, the relative gravimeter is confirmed to report the local gravity value rely on the reference absolute gravity station using daily measurement loop with A-B-A pattern.

Author: WORADET, Nattanan

Co-author: PRIRUENROM, Tasanee (National Institute of Metrology (Thailand))

Presenters: WORADET, Nattanan; PRIRUENROM, Tasanee (National Institute of Metrology (Thailand))

Session Classification: A8: Instrument I

Track Classification: Instrumentation, Metrology and Standards