

GGOS and the Gravity Field Studies

*Yoichi Fukuda¹, Patroba Odera²

1. Department of Geophysics, Graduate School of Science, Kyoto University, 2. Division of Geomatics, University of Cape Town

During the IUGG General Assembly in Prague 2015, the IAG adopted two Resolutions; No. 1 (R1) for the definition and realization of an International Height Reference System (IHRS) and No. 2 (R2) for the establishment of a Global Absolute Gravity Reference System (GAGRS). As ITRF is the realization of ITRS, IHRF and GAGRF are the realization of IHRS and GAGRS, and they should be visible outcomes of GGOS. IAG R1 describes that the vertical coordinate of a point P is given by the difference between the gravity field potential at the point and at the geoid (W_0). This procedure is nothing but the precise geoid determination. IAG R2 describes the direction to establish GAGRS and its meanings, and it looks more directly related to the gravity field studies. In addition, International Geodynamics and Earth Tide Service (IGETS), which is a service of IAG, have officially started during the IUGG in Prague. IGETS is expected to monitor temporal variations of the Earth gravity field. It is an important component of GGOS. In this talk, by reviewing the IAG resolutions and the role of IGETS, GGOS and the gravity field studies are discussed.

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