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Evaluation of the GGM05 Mean Earth Gravity Model

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More than 11 years of satellite-to-satellite ranging data from the joint US/German GRACE mission, and nearly four years of gravity gradient measurements from the ESA GOCE mission have been assimilated into a mean Earth gravity model. In addition to the data processing, the validation of the resulting model data products is an equally great challenge. This paper reviews the preparation of the GGM05 suite of mean Earth gravity models, and presents insights into their quality at the regional and global scales, with attention to applications on ocean and land.