



## **ESMGFZ: Operational Model Products for Geodetic Applications**

Robert Dill and Henryk Dobsław

GFZ, Helmholtz Centre Potsdam, 1.3 Earth System Modelling, Potsdam, Germany (dill@gfz-potsdam.de)

The Earth System Modelling Group of GeoForschungsZentrum Potsdam (ESMGFZ) routinely operates global Earth system models to provide real-time information about gravity variations, Earth rotation excitations, and surface load deformations related to mass redistributions in the atmosphere, ocean, and terrestrial water storage. The general ocean circulation model MPIOM and the hydrological model LSDM are both consistently forced with 3-hourly atmospheric data from ECMWF. Gravity variations are available as GRACE AOD1B release 06 de-aliasing product (spherical harmonic coefficients d/o 180, 3h); Earth rotation excitations are available as effective angular momentum time series AAM (3h), OAM (3h), HAM (24h), and SLAM(24h); Non-tidal deformations due to surface mass loads are available as gridded data sets NTAL (0.5°, 3h), NTOL (0.5°, 3h), and HYDL(0.5°, 24h). All data sets start in the year 1976 and are updated daily at about 11 UTC for the last day. The updates include also 6-day forecasts. ESGMFZ products are accessible via the GFZ webpage [www.gfz-potsdam.de/en/esmdata](http://www.gfz-potsdam.de/en/esmdata).