

3.5.6 Global Geophysical Fluids Center (GGFC)

The International Earth Rotation and Reference Systems Service (IERS)'s Global Geophysical Fluids Center (GGFC) provides the geodetic community with models of geodetic effects (earth rotation, gravity, and deformation) driven by the temporal redistribution of the Earth geophysical fluids. These include fluid motions within the Earth system such as the core and mantle, as well as the motions of surface fluids (e.g. oceans, atmospheres, and continental water).

The GGFC is composed of four operational entities, the Special Bureau for the Atmosphere (Chair D. Salstein), the Special Bureau for the Oceans (Chair R. Gross), the Special Bureau for Hydrology (Chair J.-L. Chen), and the Special Bureau for the Combination Products (Chair T. van Dam). There is also a GGFC non-operational component, the GGFC Science and Support Products. This component serves as a repository for models and data used regularly in data processing but that do not change often. The GGFC is actively searching for a chair for this component.

In 2009, the newly reorganized GGFC sent out a call for proposals. The responses to the call are shown in the table below. The products were all accepted as GGFC Provisional Products. The procedure for certifying the products requires an analysis of the

Proposed GGFC Product	Principal Investigator	Proposed GGFC Operational Center
VMF1 atmospheric delays; wet and dry zenith hydrostatic delays all computed (ECM-WF)	J. Boehm	Vienna University of Technology
GRACE Atmosphere Ocean Dealiasing products (ECMWF atmosphere driving the OMCT ocean model)	F. Flechtner	GFZ
Consistent atmosphere, ocean, land water storage angular momentum (ECMWF atmosphere driving the OMCT ocean and LSDM land hydrology models)	M. Thomas	GFZ
Atmospheric loading (NCEP reanalysis model) Non-tidal ocean loading (ECCO/JPL model) Continental water storage loading (GLDAS) Atmosphere+ocean loading (GRACE AOD product)	T. van Dam	University of Luxembourg

latency and reliability over a two-year period. In 2011, the original two-year validation was complete and the provisional products were upgraded to GGFC Operational Products.

These and all other GGFC Operational and Provisional products can be found through the GGFC website: <<http://geophy.uni.lu/>>

For information on submitting proposals for GGFC operational products, please go to <<http://geophy.uni.lu/ggfc-about/to-submit-new-proposals-for-products.html>> or contact T. van Dam (tonie.vandam@uni.lu).

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