

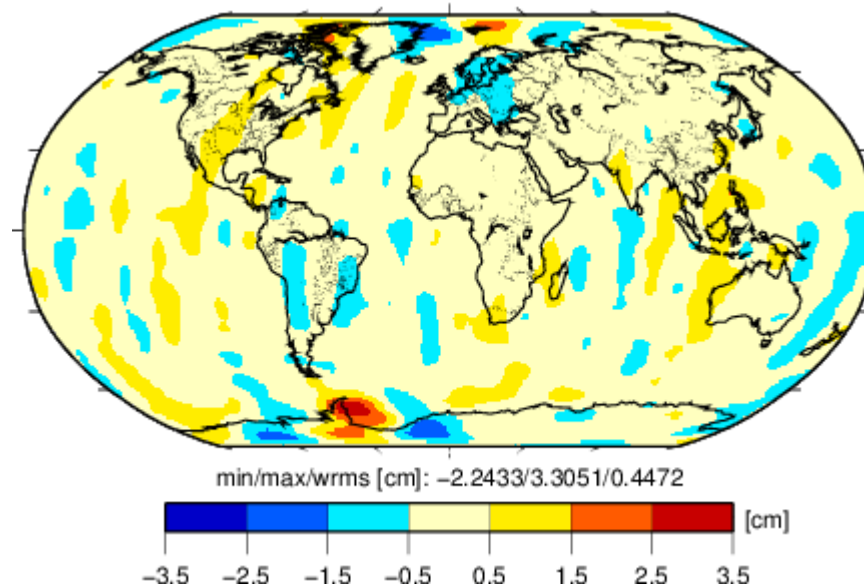
Level 2 Products at GFZ: General



- Current operational release: GFZ RL05a (152 monthly solutions from 04/2002-03/2016)
- RL06 shall be published June 2017 (SDS RR), EGSIEM L2 can be seen as “precursor”
- Improvements from RL05 to RL06 comprise
 - New (improved) background models
 - FES2014 (see next slides)
 - AOD1B RL06 (currently internally tested at GFZ and within GRACE SDS)
 - Modifications in processing strategy
 - stochastic modeling of KBR observations (first tests with promising results)
 - parameterization of KBR observations (still to be investigated)
 - relative weighting KBR vs GPS (still to be investigated)
 - Use of AIUB GPS constellation (EPOS SW prepared for testing)
 - handling/parameterization of accelerometer observations (see next slides)

Level 2 Products at GFZ: FES2014

Difference between official GFZ RL05a 12/2007 solution (with EOT11a) and alternative solution (with FES2014, everything else remained unchanged), expressed in equivalent water height and smoothed with DDK2 filter:



- regional effects are clearly visible
- largest differences occur where EOT11a is known to be less accurate (see Stammer et al. 2014, Rev Geophys)

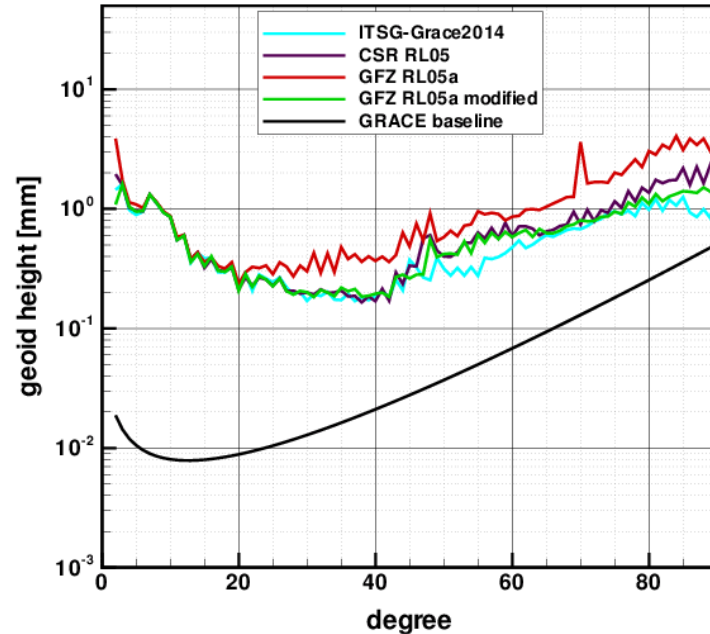
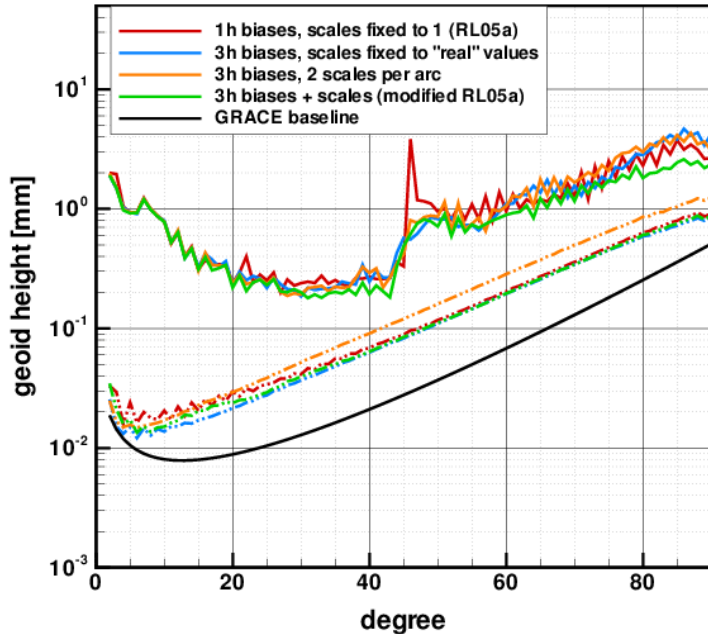
Level 2 Products at GFZ: ACC Parametrization



European Gravity Service for Improved Emergency Management

07/2012: comp. of different ACC parametrization

12/2012: comparison of different Analysis Centres



- 3h biases + scales least noisy (left Fig.), puts GFZ RL05a solution on a level comparable with CSR RL05 and ITSG2014 (right Fig.)
- Proper treatment of accelerometer observations crucial during early mission (higher solar activity) and during last years (reduced thermal control, again higher solar activity + lower orbit)
- Tests are still ongoing (got suggestions from CSR, are interested in TUG results)

Level 2 Products at GFZ: Schedule



- Agreed 2 years (2006 and 2007) will be reprocessed till June 30
- Remark: GFZ would not be happy if the June 2016 solution is the „final EGSIEM contribution“ to a combination product. We expect further improvements in the next 6 months and suggest to repeat the procedure for the next PM in January 2017!