

Status and Future of the Gravity and Geocenter SB

Michael Watkins

NASA Jet Propulsion Laboratory



Gravity SB

- Gravity SB is the least “product oriented” of the SB’s since the vast majority of the high interest products are the flight mission products archived at PODAAC and ISDC
- SB members take/took lead role in developing methodologies for global geophysical fluid analyses for gravity data - but that knowledge is embedded in the GRACE sites and in some cases the other SB’s and not this SB
 - SBGG is like a line - very long in one dimension but very small in the other



Original Vision: Gravity SB

- Archive gravity and geocenter solutions from
 - SLR
 - DORIS
 - GPS
 - Interface with CHAMP and GRACE gravity archives
 - Interface with other SB's for useful ancillary product generation
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Experience

- **Non-GRACE gravity products**
 - Few solutions
 - Irregular production, self-distributed by analysis centers
 - SLR often co-distributed with GRACE early in mission
 - Small user base - often dominated by product generators, reduced need for external archive
- **GRACE Science Data System product generation overwhelmed other SB involvement (rf earlier keynote talk)**



Progress in Gravity User Interface

- REASON - GRACE “tell us” site
- Zlotnicki, Chambers, Wahr, Watkins jointly proposed a site focused on post-processing GRACE data products - funded and is now operational
grace.jpl.nasa.gov
 - Gridding, geographic focus, etc
 - Bibliography
 - Considered merging gravity SB website with this site - good idea except site may be too GRACE-centric



Additional capabilities to be considered

- **Post processing mascons in addition to harmonics**
 - Regional Masking
 - covariance
- **Additional gridding/averaging/subsetting at user request**
- **Covariance manipulation**
 - Harmonic very large, rarely distributed
- **Should surface gravimetry be included?**



Thought Provoking Issues

- Funding is always issue - especially given existing NASA funding for GRACE data and archive, and REASON site - also NASA requires look and feel standards
- Non-overlap with major flight mission activities of GRACE and GOCE difficult
- If this SB becomes only “System Engineering” trying to tie all SB’s together for analysis with global gravity data - should it be dissolved and that job become the GGFC steering committee?
- Slightly concerned about focus on websites rather than intellectual organization for all SB’s. Often the need is not to archive whatever comes in, but rather to make a new product appear.
 - SBGG spends a lot of time thinking about how to do analysis and evangelizing with providers - how does the GGFC incentivize and recognize that?

