The DTU13 Global marine gravity field – evaluation.

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Since the release of the DNS08 and DTU10 global marine fields numerous new satellite missions important to global marine gravity field mapping have started delivering new and interesting data that will seriously improve global high resolution gravity fields. GOCE delivers unprecedented accurate geoid/gravity field data in the 200-400 km range. Cryosat-2 LRM and SAR data delivers new high resolution sea surface height observation and since May 2012 the Jason-1 satellite has been operating in geodetic mission as part it end of life mission. This is a fantastic new source of altimetric data supplementing the recent released Cryosat-2 data. With nearly 3 years of data Cryosat-2 has completed more than 3 repeats along it primary tracks in it’s 369 days repeat. In principle the satellite should continue to measure along these repeat However it is currently under investigating how exactly this repeating cycle actually is and as a consequence the Cryosat-2 data have been used for the DTU13 as non-repeating. Extensive testing and improvement in methods to handles, process and derive gravity from the new class of data has been investigated and the first result from selected regions throughout the worlds ocean will be presented.