



On the use of Jason-1 and Cryosat-2 geodetic mission altimetry for gravity field modeling

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Since May 2012 the Jason-1 satellite has been operating in geodetic mission as part of its end of life mission. This is a fantastic new source of altimetric data which supplement the recent released Cryosat-2 data. With nearly 3 years of data Cryosat-2 has completed nearly 3 repeats along its primary tracks within its 369 days repeat. The repeated observations of Cryosat-2 will eventually bring down the precision of the data as the time-variable component of the sea level signal gets averaged out more and more accurately. Also Cryosat offers SAR altimetry in selected parts of the ocean and these can be used to test how applicable these are to deriving marine gravity. The pre-launch estimate of a factor of two increase in sea surface height precision has not yet been reached, but this is compensated by the use of repeated altimetry. Extensive testing and improvement in methods to handle, process and derive gravity from the new class of data has been investigated and the first result from selected regions throughout the world's ocean will be presented.