

OBSERVING OCEAN MASS AND HEAT STORAGE CHANGES USING GRACE AND ALTIMETRY

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The Gravity Recovery and Climate Experiment (GRACE) monthly solutions of the time-variable gravity field allows direct estimates of changes in the ocean water mass budget. In combination with satellite altimetry observations, this can be used to estimate heat content changes in the ocean as well. Since the amplitudes of these signals are relatively small (compared to the signal over land), it is important that both the GRACE and altimetry data are corrected in a consistent manner. We discuss the necessary corrections and show the results based on a combination of the GRACE data with JASON-1 altimetry data for the period 2002-2004.