

AUGMENTING SATELLITE ALTIMETER DATA WITH SHIP AND LAND GRAVITY DATA IN THE NORTHWEST SHELF OF AUSTRALIA

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High-resolution maps of the marine gravity field can be produced for oil and gas exploration. Ship and airborne gravity data collected by oil companies in the preliminary stages of a survey may be combined with existing public-domain satellite altimetry data, greatly increasing the resolution potential of the latter, and providing a regional gravity field for emplacement of the exploration data. The combination of altimeter data with land and ship gravity data is an iterative process, designed to seamlessly match the data sets. The method is quick and easy to implement, and avoids laborious crossover adjustments of the ship data.