

# POST-PROCESSING ENVISAT SATELLITE ALTIMETRY DATA TO DETERMINE THE BEST GEOPHYSICS CORRECTION MODEL IN TERRITORIAL WATERS OF THE WESTERN BULELENG REGENCY

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## Abstract

Satellite altimetry is one technology sea level observations are extraterrestrial that have reached 1-4 cm accuracy. In fact when doing data acquisition much bias that affects the measurement of the data, so it should be reduced through a *post-processing of data*. This study did *post-processing of data* which aims to determine the most suitable geophysical corrections model are used to reduce the bias of measurement data altimetry.

Post-processing Envisat altimetry satellite data in this research is focused on the data for 5 years from 2006 to 2010 with the track number 275 and 383 that pass through the territorial waters of the western Buleleng regency. Post-processing is doing through the provision of a number of geophysics correction models include tidal correction (FES2004 and GOT00.2b), ionosphere (GIM, Radiometer and DORIS), and troposphere (ECMWF and MWR) at each measurement Envisat satellite altimetry data. Post-processing results each model geophysics correction is analyzed standard deviation values for defining geophysical correction models are most appropriate in the research area. Provisions used the smaller standard deviation value, then the geophysical correction models is better.

Results this research define geophysics correction models are most appropriate in research area: FES2004 for tidal correction with standard deviation value of 41,4 cm, GIM ionosphere correction with standard deviation value of 40,7 cm, and MWR wet troposphere correction with the standard deviation value of 41,3 cm .

Keyword : Post-processing data, tide correction, ionosphere correction, wet troposphere correction and standard deviation value