



Observations of near-inertial current variability associated with the passage of island-generated eddies

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Current meter data from two sites downstream and upstream of the island of Gran Canaria are analyzed to study the behaviour of the near-inertial and tidal motions. The data collected at the downstream site ($27^{\circ}30'N$, $16^{\circ}15'W$) are from moorings deployed from June 2005 to December 2006 in order to study the passage of cyclonic eddies generated by the island (Piedelev et al., 2009). After a description of the tidal current properties, this work focuses on the temporal variability of the near-inertial band, which is the main contributor to the total observed current variance. The spectrograms show fluctuations in the frequency of the near-inertial oscillations in the upper 500 meters that are related to the passage of eddies. These fluctuations appear to be consistent with the temporal variation of the background vorticity produced by the cyclonic eddies.