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Continental Shelf Currents in Tropical Storm Delia: Observations and Theory

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ABSTRACT

Storm currents are a significant part of the design hydrodynamic flow field in areas subject to tropical storms. In September 1973, Tropical Storm Delia passed over the instrumented Buccaneer platform located in 20 m of water 50 km south of Galveston, Tex. Current meter records from three depths show the storm produced currents on the order of 2 m s^{-1} which persisted to near the bottom. A mathematical model of wind-driven current generation was successful in hindcasting the observed current development after a linear slip condition bottom was incorporated in the model.

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