

*INITIAL RESULTS OF BEACH NOURISHMENT USING DREDGED MATERIAL,  
FORT MASSACHUSETTS, SHIP ISLAND, MISSISSIPPI*

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*ABSTRACT*

During March, 1974, approximately 500,000 cu yds (382,000 cu m) of material from maintenance dredging of Ship Island Pass was used to construct an artificial beach to protect Fort Massachusetts located on Ship Island in Mississippi Sound. During the 8 month period following nourishment the shoreline retreated a net average of 6.6 ft (2.0 m) per month; the eastern half retreated 16.4 ft (5.0 m) per month and the western half advanced 3.2 ft (1.0 m) per month. By June, 1975, the rate of retreat of shoreline adjacent to the Fort had decreased to 30% of the winter rate.

Major changes were in response to northwest and northeast storms which tended to smooth the originally irregular shoreline, adjust the beach toward a profile of equilibrium and cause near-shore shoaling. Continued monitoring of the beach and offshore area will be necessary to determine the longterm economic and environmental feasibility of this project.

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