

BEFORE

AFTER

West Onslow Beach Overwash 34° 30.70'N 77° 22.16'W



Bertha 7/16/96 10:34 EDT

Fran 9/07/96 14:38 EDT

Areas overwashed by Bertha were more susceptible to erosion and overwash by Fran. At West Onslow Beach, overwash fans are observed after both storms but are more extensive after Fran. Overwash that initially carried sand into the finger channels behind the first row of houses during Bertha completely filled the channels during Fran. Initially susceptible to erosion during a category 2 hurricane, the area affected by the category 3 storm was greatly expanded. Standing water appears in many areas after Fran.

BEFORE

AFTER

Undeveloped beach of Smith Island 33° 53.43'N 77° 57.08'W



Bertha 7/16/96 10:07 EDT

Fran 9/07/96 14:10 EDT

Photographs of an undeveloped coastline illustrate the contrast between Bertha, a category 2 hurricane and Fran, a category 3 hurricane. Some erosion as shown by the dune scarp and minor overwash occurred during Bertha; Fran caused major overwash fan deposits that extended into the back marsh. Finger-like projections visible as small overwash fans after Bertha were greatly extended after Fran. The large difference between these deposits show the value of surveying the undeveloped coastline for understanding geologic processes.