

GEOPHYSICAL STUDIES OF THE SOUTH FLORIDA CONTINENTAL MARGIN AND WESTERN STRAITS OF FLORIDA

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ABSTRACT

Seismic reflection profiles off the western coast of Florida south of 27° N latitude have been recorded during two cruises of Texas A&M University's R/V *Alaminos* in May, 1967 and June, 1968. They show that the anticlinal ridge present near the top of the West Florida Escarpment, which has been proposed to be an extension of the Washita-Frederichsburg reef trend, may possibly be followed southward to the latitude of the Florida Keys.

Several crossings have been made of a large knoll in the western end of the Straits of Florida. Preliminary analysis of the real-time records, without benefit of playback, indicates the presence of a terrace at a water depth of 840 fathoms, and the possibility of an anticlinal feature remarkably similar to that seen on the Florida Escarpment toward the north.

Re-examination of earlier data from Campeche Bank and comparison with those presented here reveal a number of similarities and provide several bits of evidence suggestive of a former connection. More information on the relative importance of graben-like faulting and erosion in their separation is being sought in geomagnetic and sedimentological studies now in progress.