

STRUCTURE OF THE EASTERN CARIBBEAN

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ABSTRACT

The purpose of this investigation was to determine seismically the structure of an island arc—deep sea trench sequence and its associated interior basin. During the spring of 1955 a cruise was made to the area of the Eastern Caribbean, and a series of long range seismic refraction profiles were made, designed to measure the crustal structure of the broad Venezuelan basin of the Caribbean sea, the island arcs of the Lesser and Greater Antilles, and the Puerto Rico trench. A second cruise is planned for the summer of 1956. The geologic implications of the seismic results are discussed and are correlated with the known geology of the area and with other geophysical measurements.

From the results of this investigation a possible origin and development for a deep sea trench, island arc, and interior basin are given.

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