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UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

870457PT

Office of Energy and Marine Geology
Branch of Atlantic Marine Geology
Woods Hole, MA 02543

23 February 1987

To: B. Halley, H. Knebel, G. Hill, D. Folger, T. Aldrich, S. Barton, J. Newell, T. O'Brien, G. Sexton, N. Soderberg, B. Henry (DMA), R. Nolet (DMA), T. Cocke (State Dept.)

From: W. Strahle

Subj: Cruise Report R/V STARELLA

Cruise No.: S9-87-TT

Parent Project: Defense Mapping Agency Gravity

Funding Agency: Defense Mapping Agency

Contract No.: HTCPO-84 Annex C

Area of Operation: Trinidad and Tobago

Cruise Start/End Dates; Ports: 4 Dec 87 Port-of-Spain, Trinidad/
14 Dec 87 Port-of-Spain, Trinidad

Chief Scientist: William Strahle

Cruise Curator: William Strahle

Scientific Party; Affiliation: William Strahle USGS-AMG
Barry Irwin USGS-AMG
Robin Bouse USGS-AMG
Sarah Griscom USGS-AMG
Richard Rendigs USGS-AMG

Ship's Captain: John Nichols

Purpose: Collection of gravity, magnetics, and bathymetric data in and around the waters of Trinidad and Tobago as specified by DMA requirements.

Equipment: USGS Gravity Data Logging System
USGS Data Processing System
LaCoste-Romberg Air/Sea Gravimeters S-26 and S-41
Geometrics Magnetometer
Raytheon PTR 12kHz Bathymetry System
General Electric 810 Correlation Sonar
Sperry Mk 29 Gyrocompass

Sperry Mk 29 Gyrocompass
Magnavox System 5000 Integrated Navigation System

Navigation Techniques: General Electric 810 Correlation Sonar
and Sperry Mk 29 Gyrocompass with GPS
and Transit Satellite control.

Tabulated Information: Days at sea: 33
Kilometers surveyed: 7087
Kilometers steamed: 12646

Narrative: The ship departed Fort of Spain and proceeded to the surops area on the eastern coast of Venezuela on 16 Dec 1987. Several lines were shortened on the landward ends due to shallow water. Surveying was suspended on 20 Dec 1987 and the ship transited back to Fort of Spain. Surveying was resumed on 28 Dec 1987. The eastern surops area was completed and work proceeded along the northern coast. Again several lines had to be shortened and tielines redrawn because of shallow water. In addition, some lines were adjusted to avoid sea mounts, islands, and naval restricted areas. The survey was completed on 25 Jan 1988. Final gravity land ties were completed at La Guaira on 27 Jan 1988 to tie ship meter data to a known gravity station.