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Date: November 17, 1987

To: B.Halley, H.Knebel, D.Folger, G.Hill, T.Aldrich,  
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N. Soderberg, B.Henry (DMA), R.Nolet (DMA), T.Cocke (State  
Dept.)

From: C. Delorey

Subject: Cruise Report R/V Starella

Cruise No.: SS-87-AFR

Parent Project: Defense Mapping Agency Gravity

Funding Agency: Defense Mapping Agency

Funding Amount: \$185/nmi

Contract No.: HTC-PO-87-30 Annex D

Area of Operation: Equatorial Guinea, Gabon

Cruise Start/End Dates, Ports: 22 Oct 1987 Douala, Cameroun  
04 Nov 1987 Abidjan, Cote d'Ivoire

Chief Scientist: Catherine Delorey

Cruise Data Curator: Catherine Delorey

Scientific Party, Affiliation: Catherine Delorey USGS-AMG  
Carol Renaud USGS-AMG  
Linda Sheetz USGS-BPG  
William Wright USGS-OEMG

Ships Captain: John Nichols

Purpose: Collection of gravity, magnetics and bathymetry data  
in and around the waters of Equatorial Guinea, and Gabon  
as specified by DMA requirements.

Equipment: USGS Gravity Data Logging System  
USGS Data Processing System  
LaCoste and Romberg Air/Sea Gravimeters S-26 and S-41  
Raytheon PTR 12KHz Bathymetry System  
General Electric 810 Correlation Sonar  
Sperry MK29 Gyrocompass  
Magnavox System 5000 Integrated Navigation System

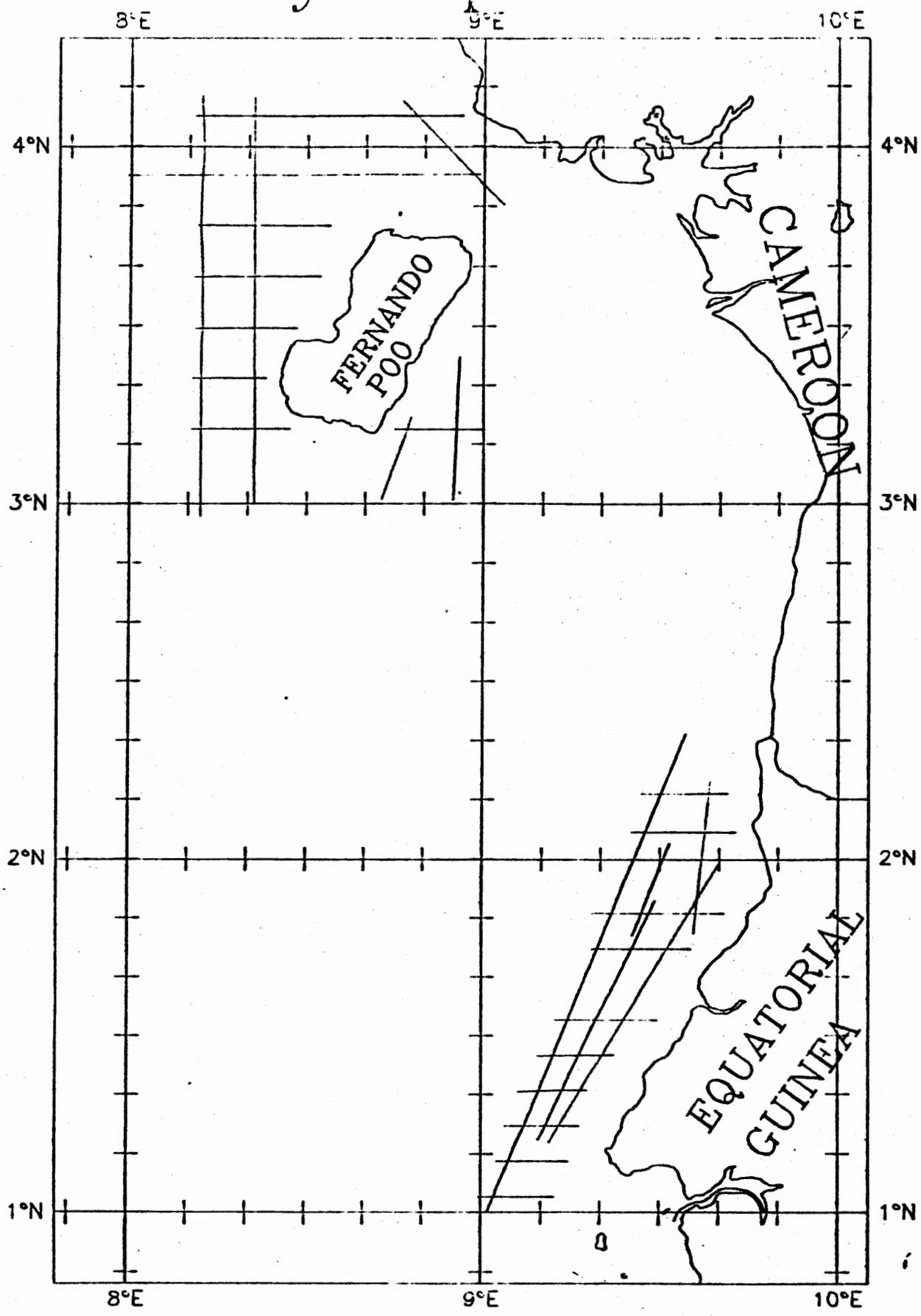
Navigation Techniques: General Electric 810 Correlation Sonar and  
Sperry MK29MOD3 Gyrocompass with GPS and  
Transit Satellite control.

Tabulated Information:  
Days at sea: 14  
Kilometers surveyed: 2452  
Kilometers steamed: 4285

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Narrative: The ship departed Doula and proceeded to survops area on 22 Oct 1987. Upon completion of lines begun on previous leg S7-87-AFR in the waters off Gabon the ship headed northward to complete lines off Equatorial Guinea. Several lines in both survey areas were shortened on landward end due to shoals. The presence of oil rigs required further adjustments of lines in both regions. Surveying was completed on 31 Oct 1987 followed by a three day transit to Abidjan where the ship docked on 04 Nov 1987. Final gravity land ties were completed in Abidjan on 05 Nov to tie ship meter data with a known gravity station and to verify the accuracy of two previous land ties performed in the same area.

# DMA Gravity - Equatorial Guinea



10 0 10 20 30 NAUTICAL MILES

Scale 1:1769100

# DMA Gravity - Gabon

