

87022rpt

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

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

27 AUG 1986

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

From: G. Driscoll

Subj: Cruise Report R/V STARELLA

Cruise No.: S4-87-AFR

Parent Project: Defense Mapping Agency Gravity

Funding Agency: Defense Mapping Agency

Funding Amount: \$185.00/NM

Contract No.: HTCPO-87-030 ANNEX D

Contract Start/End Dates: 1 OCT 87-Open

Area of Operation: Western Sahara, Mauritania, Senegal

Cruise Start/End Dates; Ports: 12 June 1987, Las Palmas, Canary Islands  
17 July 1987, Dakar, Senegal

Chief Scientist: George Driscoll

Cruise Data Curator: George Driscoll

Scientific party; Affiliation:	George Driscoll	USGS, Woods Hole
	Barry Irwin	" " "
	Ron Circe	" Reston
	Bill Strahle	" Woods Hole
	Nancy Soderberg	" " "
	Lester North	" " "
	Robert Bowles	Consultant
	Jim McCullough	WHOI, Woods Hole
	William Bookheimer	General Elect.

*Handwritten notes:*  
6/12/87  
6/12/87  
6/26/87  
6/12/87

*Handwritten signature:* Amadou T. Diaw  
*Handwritten text:* Univ of Senegal  
*Handwritten text:* Afrique Noire

Ship's Captain: John Cannan

Purpose: To collect gravity and bathymetric data off the west coast of Africa on a 3 NM grid with an internal consistency of +/- 3 milligals. The General Electric

810 Correlation Sonar was tested during the first part of the cruise.

Navigation Techniques: GE 810 Correlation Sonar, Mk 29 Gyro Compass with GPS and Transit satellite control.

Equipment: USGS Gravity Data Logging System  
 USGS Data Processing System  
 LaCoste and Romberg Air/Sea Gravimeters S-26 and S-41  
 Raytheon PTR 12 KHz Bathymetry System  
 General Electric 810 Correlation Sonar  
 Mk 29 Gyro Compass  
 Magnavox system 5000 Integrated Navigation System

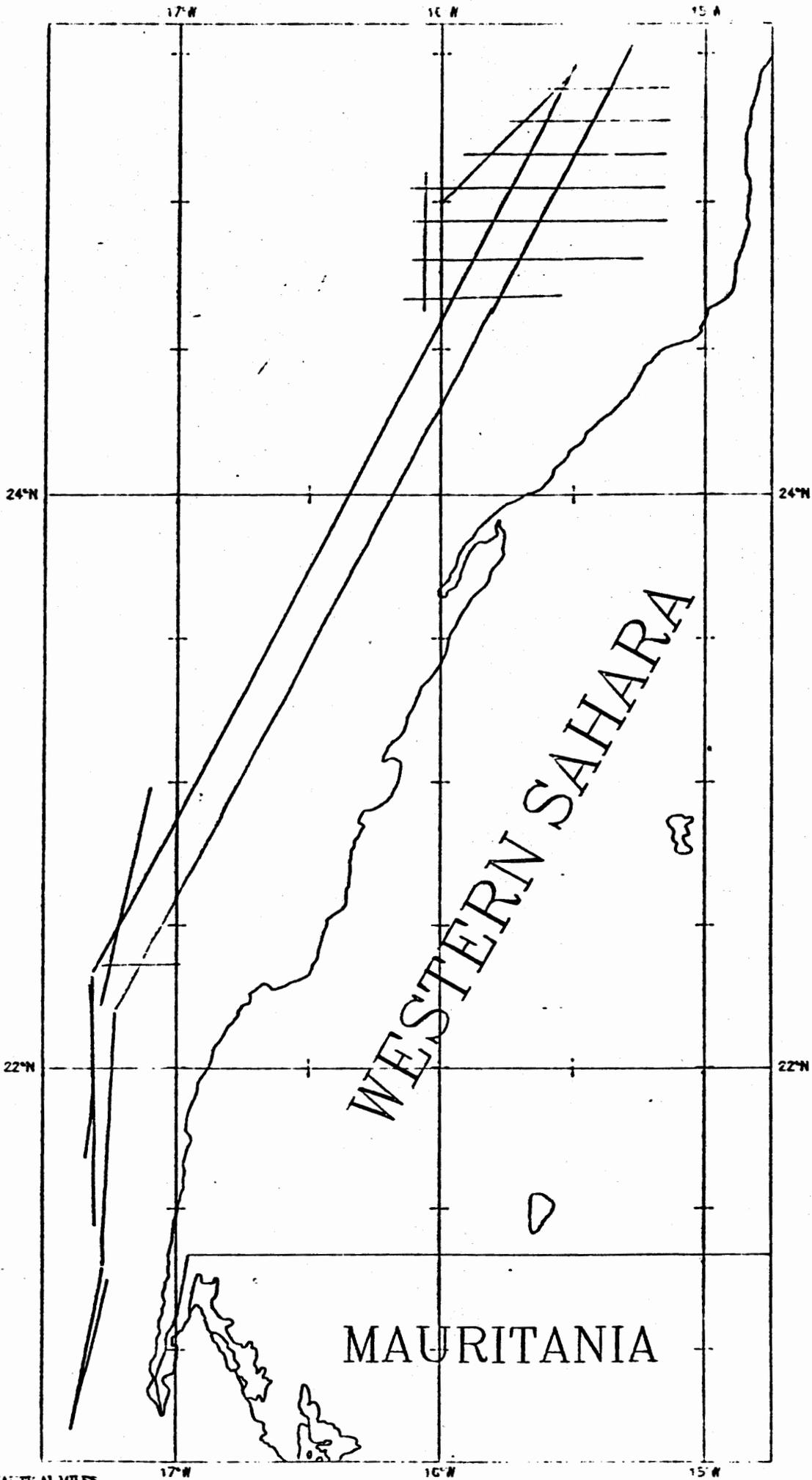
Tabulated Information:

Days at sea: 28  
 Kilometers surveyed: 5663  
 Kilometers steamed: 7340

Narrative: *Kilometers magnetic 2500*  
 Departed Las Palmas, Gran Canaria 12 June 1987 to test General Electric 810 Correlation Sonar along coast of Western Sahara. On 19 June returned to Las Palmas to offload test personnel and resumed survey along offshore Western Sahara. Survey continued off Mauritania and Senegal. 810 Sonar/Mk 29 Gyro system worked flawlessly. Most lines cut short on eastern end due to shoals.

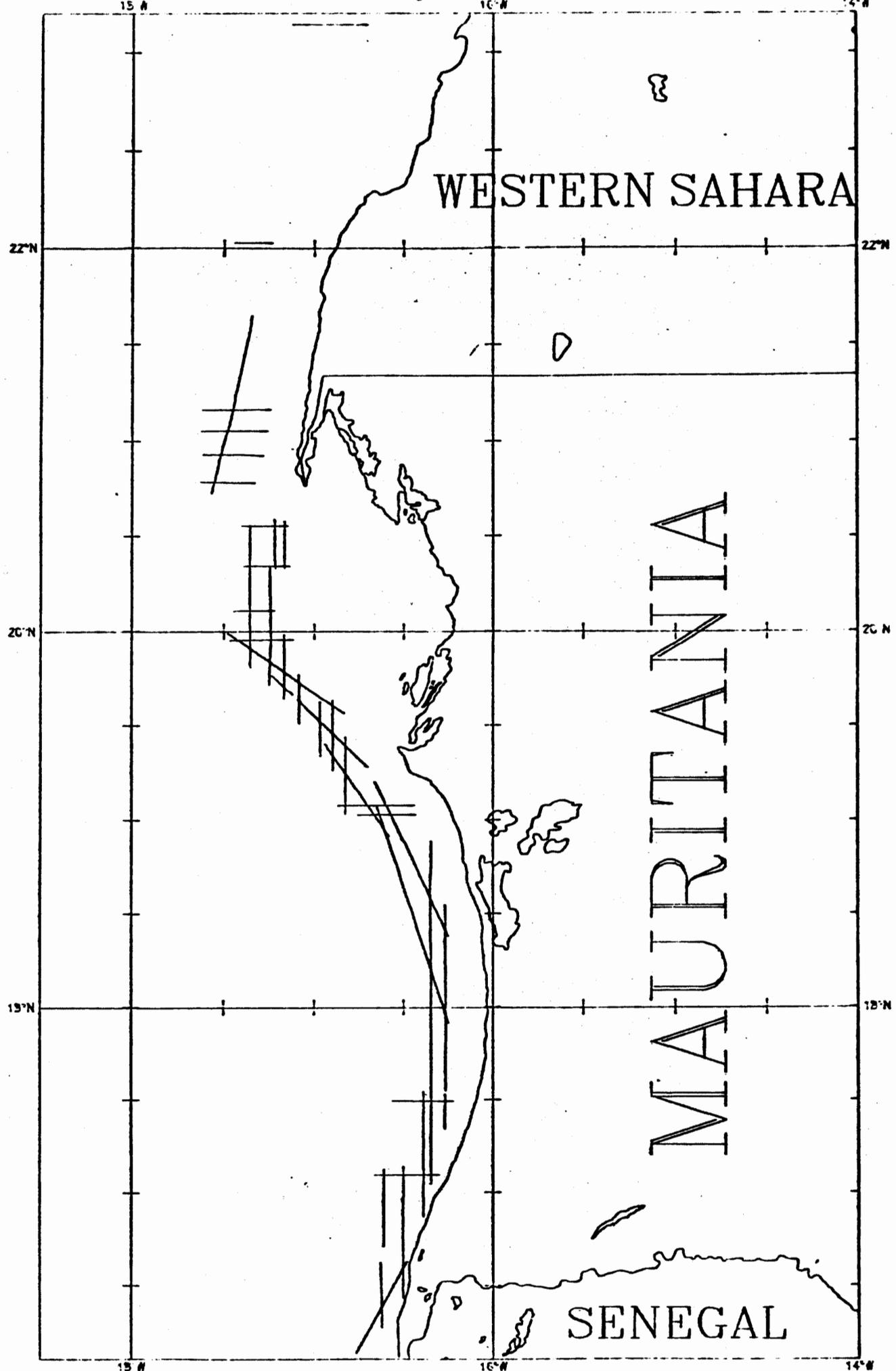
DMA Gravity - Western Sahara

STBL 84-87-AFR-2



0 10 20 30 NAUTICAL MILES

Scale: 1:500,000



# DMA Gravity - Senegal

