

Lamont-Doherty Geological Observatory
of Columbia University

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Palisades, N.Y. 10964

Cable: LAMONT, Palisades, New York State

Telephone: Code 914, Elmwood 9-2900

TWx: 710-576-2653

CRUISE REPORT

Ship Name: VEMA

Cruise No: 35-01

Departure: Feb. 18, 1978 from Capetown
Date Port

Arrival: March 6, 1978 at Port Victoria, Mahe, Seychelles
Date Port

Days at Sea: 16 Days Foreign Port: 3 No. of days in arrival port

Area of Operation: Western Indian Ocean, Mozambique Channel, Mozambique Basin,
Southern Somali Basin.

Program Description:

See Attached.

Participants: (All L-DGO unless otherwise specified)

James R. Cochran	Chief Scientist
Brian Mossman	E.T.
Dwight Mossman	E.T.
Brian Ostrowski	E.T.
Jeff Schwartz	Core Describer
Hector Smith	Air Gunner

All inquiries regarding cruise should be made to the chief scientist.

Program Description: Cruise V3501 was basically a transit leg between Capetown and the Seychelles and as a result the track is very nearly a straight line between the two ports. The scientific objectives of the cruise were centered in the Mozambique Channel and Mozambique Basin. One core was taken in an area of what appeared to be sediment waves in 4500 m of water near the eastern edge of the Mozambique Basin. We also ran a south to north magnetics line up the Mozambique Channel which does not appear to show the Mesozoic seafloor spreading anomalies which have recently been postulated for that ^{region} reason. A zig across the trend of the Davie Ridge allows us to extend it more than fifty miles south of where it had previously been mapped. This strengthens the evidence for the Davie Ridge extending as a continuous feature from southwestern Madagascar to Northeastern Mozambique.

There was a good deal of equipment trouble on leaving Capetown. The profiler had been adjusted too fine during the Capetown overhaul and either didn't print or burned. As a result there are no profiler records across the Agulhas Plateau and only one profiler operating for about a day after that. The profiler records are not particularly good throughout the cruise because we had to average well over 10 knots in order to get into port a day late. There was also trouble with the gravity table which was finally cured by rebalancing it and with the magnetometer which we suspected was noise from the ship but which was cured when a new magnetometer was built. I would like to thank the E.T.'s who all worked 18 hour days for the first week and who built two eels and two magnetometers during the cruise.

The new arrangement of the wet lab appears satisfactory in terms of layout and working space, although a bulkhead ought to be built to replace the curtain serving as the entrance to the darkroom. I have some doubts about how well the wet lab will work once the large compressors are installed both from the standpoint of noise and because cores are liable to be turned into soup from vibrations.

