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CRUISE REPORT

Ship Name: R/V CONRAD

Cruise No: 20-08

Departure: 23 December, 1976 from Guam
Date Port

Arrival: 1 January, 1977 at Keelung
Date Port

Days at Sea: 9 Days Foreign Port: 4
No. of days in arrival port

Area of Operation: **Parece Vela Basin; West Philippine Basin**

Program Description: **Topographic Survey of proposed Guam-Taiwan
cable route**

Participants: (All L-DGO unless otherwise specified)

Gerard, Robert	Chief Scientist
Bradley, William	A.T.T. Rep.
Casagrande, Paul	Gravity
Chang, Chueh-Pin	Taiwan Tele. Comm. Rep.
Crowell, Bruce	E.T.
Grob, Daniel	E.T.
Hammond, George	A.T.T. Rep.
Hauptman, Jeffrey	Core Describer
Iltzsche, Martin	Airgun Engineer
Kao, Chin-Shu	Taiwan Tele. Comm. Rep.
Liu, Wen-Kang	Taiwan Tele. Comm. Rep.
Rutan, Robert	A.T.T. Rep.

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

CRUISE REPORT

R/V CONRAD 20-08

Program Operations

This cruise and the following cruise (see 20-09) were carried out under a charter-cooperative research arrangement with A.T.T. for the purpose of surveying a prospective cable route between Guam and Taiwan. The A.T.T. team of three persons was supplemented by a three man team of Taiwanese assigned by the Taiwan Telecommunication Administration. The route was laid out based on the best available information on topography between the two islands. The specific task was to obtain high quality PDR records along the proposed cable route and to detail information on slope, by-passing of obstacles such as seamounts and ridges, and to assess the shallow water approaches particularly at the Taiwan end. The primary scientific equipment was the 12 and 3.5 KHZ echo sounders. Detailed navigation was kept by the scientific watch using an ITT-Decca Loran C which was provided by the A.T.T. group. Positions were plotted at six minute intervals throughout the cruise and these were checked periodically with the satellite navigation fixes. Both PDR records were marked at six minute intervals. The single channel profiler system was used throughout the cruise in order to provide additional information on structure and topography and as a guide to maintaining proper scale change notations on the echo sounder records. The only station work accomplished on the Leg took place in shallow water near Keelung: several gravity cores were taken in order to document the shelf sediment type for engineering considerations. The cruise track is shown in the attached figure.

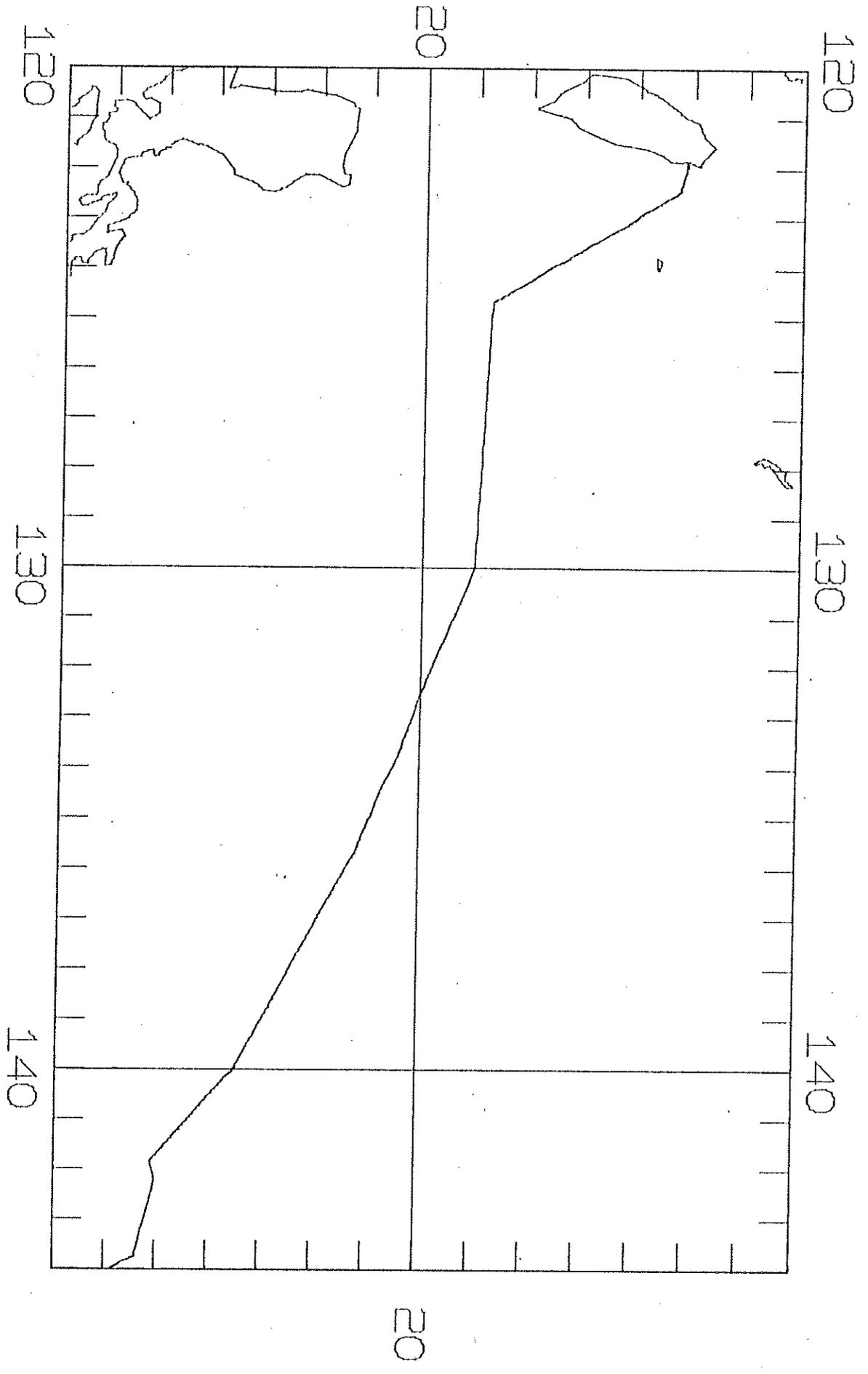
Equipment Performance

On the first day out there was a failure in the steering engine hydraulic pump motor. A temporary replacement was provided by taking a spare cooling pump motor from the big compressor system and running a special line for power. A new spare motor was received in Keelung and installed. The number 1 generator which had been out for a long time was still inoperative and all operations were conducted using SS generators 2 and 3. On a couple of occasions when one of these units dropped off the line it was necessary to shut down the regular airgun system since that imposed too great a load for operation with only one generator. During the period in Guam, prior to departure, extensive work was carried out on tanks 4 and 5 in order to correct the leakage that had developed. Electrical inspection of the ship's service generators and other equipment was carried out by a consultant from the U.S. during the Guam period. Captain Olander and Chief Engineer Weeks worked on a number of repair items to improve reliability of ship's systems.

R/V CONRAD Cryise Report 20-08 cont'd.

Comments

This was our first experience with a commercial charter and the results from the charterer's point of view appeared to be quite successful. Fortunately their demands were few and relatively simple. One learns that a considerable amount of diplomacy is needed in order to deal with charter company representatives. They tend to assume that since they are paying a relatively high daily cost that their needs will be handled by the ship's force or the scientific force and these expectations are sometimes difficult to satisfy.



RC 20-08