High-resolution seismic-reflection data collected on R/V S.P. LEE: L9-84-CP, Marshall Islands to Hawaii

by

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The U.S. Geological Survey (USGS) R/V S.P. LEE (cruise L9-84-CP) left Majuro, Radak chain of the Marshall Islands on July 28, 1984, cruised over the Mid-Pacific Mountains, and reached Hawaii on August 15, 1984 (Figs. 1 and 2). The main objectives of the cruise were to study the distribution and composition of ferromanganese-oxide crusts in the Marshall Islands and to retrieve a current meter/sediment trap mooring deployed in October 1983 on Horizon Guyot, Mid-Pacific Mountains (USGS L5-83-HW cruise). The quality of the geophysical data collected is generally good. However, the declivity of some seamount, atoll, and guyot flanks are too large to allow high-quality resolution from the surface-towed systems that were used.

The navigation system used was an integrated satellite-navigation/LORAN-C (in Mid-Pacific Mountains)/dead-reckoning system that was updated by radar when possible. A total of 5410 km of 12-kHz and 3.5-kHz seismic-reflection data and 730 km of 80-in\textsuperscript{3} to 148-in\textsuperscript{3} airgun seismic-reflection data were collected. The original records can be seen and studied at the USGS offices at Woods Hole, MA 02543. Microfilm copies of the seismic-reflection data can be purchased only from the National Geophysical Data Center, NOAA/EDIS/NGDC, 325 Broadway, Boulder, CO 80303.

This report is preliminary and has not been reviewed for conformity with the U.S. Geological Survey editorial standards and stratigraphic nomenclature.

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Figure 1.—Ship trackline map: western portion of the study area.