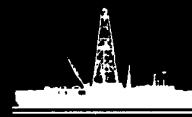


NEWS RELEASE

Ocean Drilling Program



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November 8, 1985

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COLLEGE STATION, Texas -- JOIDES Resolution, the scientific drillship for the Ocean Drilling Program (ODP) is on site at the Mid-Atlantic Ridge. During the next two months scientists will be recovering cores of hard rock from this remote underwater mountain chain.

Using new technology, the ship's crew will drill near the axis of the Mid-Atlantic Ridge into that part of the basaltic hard rock that is not covered by sediment. The bare rock is newly formed or zero-age rock produced by volcanic eruptions.

The Mid-Atlantic Ridge is part of the 84,000-kilometer long (52,000 miles) mid-ocean ridge, a nearly continuous mountain chain that ranges throughout all the world's oceans. This ridge is the source of new crustal material and is responsible for seafloor spreading, the process that pushes apart large plates of Earth's crust.

At the Mid-Atlantic Ridge, the seafloor spreads at a rate of between 1.1 and 1.7 centimeters (less than an inch a year). By drilling into the rugged topography of the world's largest underwater mountain range, scientists hope to learn more about the origin, nature and evolution of the ocean's crust.

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Traditional drilling methods have depended on thick layers of sediment to provide stability for the drill bit before it hit bare rock. Because the ocean floor at this site does not have a protective sediment layer, drilling into the newly formed crust calls for innovative techniques.

To overcome the problem of the bit spinning off the hard, rocky surface, the ODP engineering group manufactured a specially designed guide base. The crew will lower the 40,000-pound structure onto the bottom of the seafloor where it will serve as a base for the reentry cone, the device used to guide the drill bit and drill string into a hole. An additional 100,000 pounds of cement will be pumped into bags inside the base to provide further stability. The guide base's size and weight serves as the ballast usually provided by sediment.

A television camera attached to the outside of the drill string and lowered to the seafloor will beam images back to the ship. Televising the underwater terrain allows scientists to view the rugged topography of this section of the seafloor. Also, the crew can more exactly determine the location of the guide base enabling them to accurately lower drill string in water depths up to 4 kilometers (2.5 miles). To begin drilling, the drill string will be lowered through the combined reentry cone and guide base, allowing the bit to drill into the hard rock.

The guide base and reentry cone will be left at this site, providing a subsea laboratory for a new crew of scientists who

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will return to this area in May and June to drill even deeper into the volcanic material.

Co-chief scientists for the cruise are Dr. Robert S. Detrick from the University of Rhode Island, and Dr. Jose Honnorez from Rosenstiel School of Marine and Atmospheric Science. Dr. Andrew C. Adamson is Texas A&M University staff scientist. The 14-member scientific party are from the United States, Canada, France, West Germany and Japan. A technical crew of 25 and a ship's crew of 68 are also on the cruise.

JOIDES Resolution, registered as SEDCO/BP 471, is the research vessel for ODP which is funded by the United States National Science Foundation, Canada, France, Japan and West Germany.

The 470-foot long drillship's derrick towers 200 feet above the waterline. The heart of the floating research center is a seven-story laboratory stack which provides space and equipment for onboard examination of sediment and hard-rock cores. Studies include chemical, gas and physical properties, paleontology, petrology, paleomagnetism and sedimentology. Marine geophysics research is conducted while the ship is under way.

Texas A&M University, as science operator, operates and staffs the drillship and retrieves cores from strategic sites around the world. The science operator also ensures that adequate scientific analyses are performed on the cores. To do this, Texas A&M maintains shipboard scientific labs, provides

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logistical and technical support for shipboard scientific teams, manages post-cruise activities, is curator for the cores and distributes samples, and coordinates the editing and publishing of the scientific results.

Lamont-Doherty Geological Observatory of Columbia University is responsible for downhole logging.

The Joint Oceanographic Institutions (JOI, Inc.) manages the program. JOI, Inc. is a nonprofit consortium of 10 major U. S. oceanographic institutions. Joint Oceanographic Institutions for Deep Earth Sampling (JOIDES), an international group of scientists, provides overall planning and program advice.

Before returning to the Mid-Atlantic Ridge in the spring of 1986, the ship will drill in the Tyrrhenian Sea in the Mediterranean and off the northwest coast of Africa, announced Dr. Philip D. Rabinowitz, director of ODP. In the Tyrrhenian Sea, scientists will study seafloor spreading processes and how this region of the world's land masses separated from each other. Drilling off the coast of Africa will provide information about that region's upwelling of ocean water. This information, in turn, will help scientists better understand the cycles of aridity and humidity that have affected Africa's climate through the ages.

(Note: JOIDES institutions are: University of California at San Diego, Scripps Institution of Oceanography; Columbia University, Lamont-Doherty Geological Observatory; University of Hawaii, Hawaii Institute of Geophysics; University of Miami, Rosenstiel School of Marine and Atmospheric Science; Oregon State University, College of Oceanography; University of Rhode Island, Graduate School of Oceanography; Texas A&M University, Department of Oceanography; University of Texas at Austin, Institute of Geophysics; University of Washington, College of Ocean and Fishery Sciences, and Woods Hole Oceanographic Institution.

Non-U. S. members are Canada, Department of Energy, Mines, and Resources, Earth Sciences Sector; Federal Republic of Germany, Bundesanstalt für Geowissenschaften und Rohstoffe; France, Institut Français de Recherche pour l'Exploitation de la Mer; and Japan, University of Tokyo, Ocean Research Institute.)