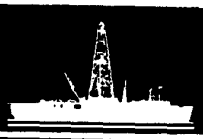
NEWS RELEASE
Ocean Drilling Program



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COLLEGE STATION, TX -- An international team of scientists on board JOIDES Resolution is returning to a remote area in the Atlantic Ocean, the site of an underseas laboratory that was established last winter on the bottom of the sea.

During May and June, scientists for the Ocean Drilling Program (ODP) will drill into a subterranean volcano on the Mid-Atlantic Ridge about 1200 miles southeast of Bermuda. Another group last November and December successfully deployed a new system that allows drilling into the bare, highly fractured rock common in seafloor-spreading regions.

Traditional methods of drilling depend on thick layers of sediment to provide lateral support for the flexible drill string to penetrate the rock surface. Because the ocean floor at the mid-ocean ridge does not have a sediment layer, drilling into the newly formed rock requires a different technique.

Six months ago, a 20-ton steel device called a guide base was lowered to the seafloor and locked in place with 2,000 cubic feet of cement. The base gave the stability needed to drill into the rocky surface. ODP engineers also developed new drill bits

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to successfully penetrate and drill into the brittle, highly fractured volcanic rock.

Drilling in two miles of water, scientists on this cruise hope to deepen the hole an additional 300 meters (about 1,000 feet) past the original 33 meters (110 feet) previously drilled.

The guide base will allow the ship to retrieve scientifically valuable cores of rock brought up through the drill string. Using laboratory facilities on board the ship, scientists will examine the 10-meter-long (30 feet) cylinders of rock to learn more about newly formed ocean crust and processes of seafloor spreading.

The Mid-Atlantic Ridge is a huge, underwater volcanic mountain range that runs north and south down the center of the Atlantic ocean. It is also the site of a phenomenon called seafloor spreading. From deep inside Earth's interior, hot, molten magma wells up to the ocean floor at the ridge and forms lines of volcanoes. As the lava pushes its way up, the ocean floor moves laterally as if on a conveyor belt. Moving away from the ridge, the seafloor spreads up to 1.7 centimeters (more than half an inch) a year in each direction.

At less than 100,000 years old, the rock retrieved from the ridge interior is called zero-age by geologists because it is extremely young in geologic time. Because no research vessel had ever drilled deeply into such young, ocean-ridge rocks before the winter expedition, scientists are now anxious to continue exploring the site.

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In addition to deepening the hole, extensive measurements will be taken by lowering instruments through the drill pipe. Called downhole logging, these instruments relay information about the volcano's interior including temperature, heat flow and the rocks' natural radioactivity, permeability and porosity. A special instrument called a downhole televiewer will beam back sonic pictures of the rock formation surrounding the drill pipe.

By examining the rocks and studying the information from the downhole logging measurements, scientists will gain a better understanding of how magma is generated and of the origin, nature and evolution of new oceanic crust.

Scientists have previously dredged the ocean floor at the Mid-Atlantic Ridge, obtaining a two-dimensional view of how the ocean crust varies in this area. ODP's permanent, underseas laboratory is important because it provides a valuable third dimension necessary for the understanding of Earth's processes.

It is anticipated that the ship will return to the site in a few years to deepen the hole and further examine the geologic mysteries of the vast underwater mountain chain.

At that time, instruments left in the hole will give us a continuous record of the seismic activity and other geologic data as it occurs in this area.

Co-chief scientists for this second visit are Dr. Wilfred B. Bryan of the Department of Geology and Geophysics at Woods Hole Oceanographic Institution, and Dr. Thierry Juteau of the Universite de Bretagne Occidentale in Brest, France. Dr. Andrew C. Adamson is the Texas A&M University staff scientist.

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The U. S. National Science Foundation, Canada, France, Japan, West Germany and the United Kingdom fund the program.

The 17-member international team of scientists comprises participants from all six member countries. In addition, 22 technical crew and 65 ship's crew are sailing on the cruise.

JOIDES Resolution, the drill ship for ODP, is 470 feet long with a derrick that 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 on-board examination of sediment and hard-rock cores. Studies include chemical, gas and physical properties, paleontology, petrology, paleomagnetics and sedimentology. Marine geophysics research is conducted while the ship is under way.

Texas A&M University, as science operator, operates and staffs the drill ship and retrieves cores from strategic sites around the world. The science operator also ensures that adequate scientific analyses are performed on the cores. Texas A&M maintains shipboard scientific labs, provides logistical and technical support for shipboard scientific teams, manages post-cruise activities, and is curator for the cores and the scientific results.

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

Joint Oceanographic Institutions for Deep Earth Sampling (JOIDES), an international group of scientists, provides scientific planning and program advice. Joint Oceanographic

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Institutions, Inc. manages the program.

"Plans for other cruises this summer and fall include drilling off Barbados and in the Pacific ocean." announced Dr. Philip D. Rabinowitz, director of ODP.

In early summer, the ship will drill in the Lesser Antilles, off the islands of Barbados, at a site where the Atlantic tectonic plate is being subducted beneath the Caribbean plate. JOIDES Resolution will then drill off the coast of Panama, marking her first Pacific expedition.

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(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 Department of Energy, Mines, and Resources, Earth Sciences Sector, Canada; Bundesanstalt fur Geowissenschaften und Rohstoffe, Federal Republic of Germany; Institut Francais de Recherche pour l'Exploitation de la Mer, France; University of Tokyo, Ocean Research Institute, Japan; and Natural Environment Research Council, United Kingdom.)