

NEWS RELEASE

Ocean Drilling Program



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COLLEGE STATION, TX-- The drillship JOIDES Resolution is drilling off the coast of Spain where scientists are hoping to discover more about how land masses were ripped apart millions of years ago.

During May and June, 50 scientists and technicians plus a ship's crew of 65 will be drilling far beneath the ocean floor in an attempt to learn more about Earth's geologic history. In addition to the U. S., the international scientific party includes participants from Canada, France, Italy, Japan, Spain and West Germany.

On this third cruise of the Ocean Drilling Program (ODP), participants will investigate the continental margin on the eastern side of the Mid-Atlantic Ridge.

Earth's surface has continually shifted throughout time. One form of this mobility is expressed through a rifting process in which land masses pull apart from each other, forming ocean basins. The term rift refers to this original split and the subsequent downfall of the continents' margins.

Rifting often occurs when pressure builds up from Earth's

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mantle, causing a violent upheaval that splits the crust apart. A great underwater volcanic mountain range called the Mid-Atlantic Ridge, for instance, is thought to be the axis responsible for separating the North and South American continents from their European and African counterparts.

By examining samples obtained from drilling, scientists will be able to learn more about Earth's history including the approximate geologic time that rifting began, how sediments were deposited on the ocean floor and the nature of the transition from continental to oceanic crust.

What scientists discover from this cruise also can be related to other parts of the world, specifically the Spanish coast's counterpart off the coast of Newfoundland which is on the opposite side of the Mid-Atlantic Ridge.

Co-chief scientists for the cruise are Dr. Gilbert Boillot, the University Pierre et Marie Curie, France, and Dr. Edward L. Winterer, Scripps Institution of Oceanography, the University of California. Dr. Audrey W. Meyer is Texas A&M University staff scientist representative.

JOIDES Resolution, whose registered name is SEDCO/BP 471, is the vessel for the ODP, an international project funded by the U. S. National Science Foundation, Canada, Federal Republic of Germany, France and Japan.

The 470-foot drillship's derrick towers 200 feet above the waterline. The heart of the floating scientific research center is a seven-story laboratory stack which provides space and

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equipment for on-board examination of cores including chemical, gas and physical properties, and paleontological, petrological, paleomagnetic and sedimentological studies. Marine geophysics research is conducted while the ship is under way.

Texas A&M is science operator for the program and is responsible for the ship's staffing and scientific operations, overseeing core collection and analyses, and dissemination of results. Lamont-Doherty Geological Observatory of Columbia University, conducts downhole logging.

The NSF funds the program through the Joint Oceanographic Institutions, Inc. (JOI, Inc.) which manages the project. JOI, Inc. is a not-for-profit consortium of 10 major oceanographic institutions. Joint Oceanographic Institutions for Deep Earth Sampling (JOIDES), an international group of scientists, provides overall planning and program advice.

The first two cruises were conducted in the Bahamas and off the southeastern United States from January through April. Plans for upcoming cruises include drilling in the Norwegian Sea, high latitude drilling in the Labrador Sea and Baffin Bay, and drilling newly formed rock in the Mid-Atlantic Ridge, announced Dr. Philip D. Rabinowitz, ODP director at Texas A&M.

(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, Institute of Geophysics; University of Washington, College of Ocean and Fishery Science; 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'exploration de la mers (IFREMER), France; and University of Tokyo, Ocean Research Institute, Japan.)