

# NEWS RELEASE

## Ocean Drilling Program



For information:

Karen Riedel  
Ocean Drilling Program  
Texas A&M University  
College Station, TX 77840  
(409) 845-9322

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COLLEGE STATION, Tx -- The scientific crew on board JOIDES Resolution, drill ship for the Ocean Drilling Program (ODP), has targeted the central portion of the world's largest underwater plateau for two months of exploration.

Lying in the south-central part of the Indian Ocean, the Kerguelen Plateau rises between two to four miles above the seafloor and, at 2500 kilometers (1550 miles) in length, is approximately the size and shape of Argentina. The plateau's origin and evolution, however, remain a mystery.

Scientists hold two prevailing theories, not mutually exclusive, about the plateau's origin. One theory contends that the plateau is a microcontinent sheared off the main continent of Antarctica.

A second hypothesis maintains that the plateau is a block of oceanic crust uplifted during seafloor spreading of the Southeast Indian Ridge which runs perpendicular to the Kerguelen Plateau. Because of drilling results from a cruise conducted in January and February of this year, scientists are taking a harder look at the possibility that the plateau may be a combination of these two events.

Scientists will combine the results from this cruise with those

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from previous drilling expeditions, one recently completed on the northern and southern part of the plateau and another drilled at about the same latitude in the South Atlantic, 3400 nautical miles to the west.

The synthesis of results from these six months of drilling will help scientists pinpoint the long-term climatic record of these regions, including the history of glaciation and the evolution of the circum-Antarctic current, a force pushing cold bottom waters north, affecting global climate.

This information is critical in understanding the entire geologic formation, development and future of the fragile Antarctic region.

Co-chief scientists for the cruise are Dr. Roland Schlich, Institute de Physique du Globe, Strasbourg, France, and Dr. Sherwood W. Wise, Jr., Florida State University. Staff scientist is Dr. Amanda Palmer, Texas A&M University.

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

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

add two

"The Ocean Drilling Program completes its 18-month campaign in the Indian Ocean at the end of 1988," said Dr. Philip D. Rabinowitz, director of ODP.

"We will be exploring the eastern and central Pacific regions through 1990," he said.

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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; European Science Foundation Consortium for the Ocean Drilling Program, Belgium, Denmark, Finland, Iceland, Italy, Greece, the Netherlands, Norway, Spain, Sweden, Switzerland and Turkey; Bundesanstalt für Geowissenschaften und Rohstoffe, Federal Republic of Germany; Institut Français de Recherche pour l'Exploitation de la Mer, France; University of Tokyo, Ocean Research Institute, Japan; and Natural Environment Research Council, United Kingdom.)