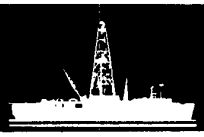
NEWS RELEASE
Ocean Drilling Program



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Leg 121.1

COLLEGE STATION, TX -- Scientists sailing on the drill ship JOIDES Resolution for the next two months will investigate the geological history of the eastern Indian Ocean. They will specifically

--record how a section of ocean crust reacts at a site of crustal plate rifting and seafloor spreading

--date the track of India's flight to and collision with the Asian continent

--study the behavior of the region's climate patterns over millions of years

To accomplish these objectives, an international team of scientists will drill at sites on Ninetyeast and Broken ridges. Ninetyeast Ridge is a 5,000-kilometer-long underwater mountain chain that runs almost due north-south from the Bay of Bengal to a latitude equal to that of the southern tip of Western Australia. This ramrod straight ridge terminates at the east-west trending Broken Ridge, which scientists believe was once joined to the world's largest underwater plateau, the giant Kerguelen Plateau.

About 90 million years ago, volcanic activity created a huge basalt pile forming the then-combined Kerguelen Plateau and Broken

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Ridge. The volcanism caused this section of crust to thicken and sink as the volcanic pile added weight to the crust. About 42 million years ago, the weakened section of crust split apart with Broken Ridge moving away from the northern section of the plateau, but scientists don't know which process caused the separation. The ridge may have been separated from the plateau by the crust pulling apart, induced by the heavy edges of the crustal plate on which Broken Ridge rode. Or the separation may have occurred when the upward flow of hot magma pushed the two crustal sections apart.

By investigating this problem, scientists will be able to reconstruct the flexibility of ocean crust during volcanic activity. This in turn establishes what forces separate weakened crust and initiate ocean basins.

Drilling on Ninetyeast Ridge will help scientists date the track of the Indian crustal plate as it made its way from the South Pole to the Asian continent, a 120-million-year journey. As the plate moved north it passed over a hot spot near Kerguelen Island. Hot spots are punctures in the ocean floor in which hot magma wells up, forming volcanoes. As the Indian plate moved over the fixed magma source, it carried the volcanic formations with it, leaving the hot spot behind. The process created a chain of volcanoes, the oldest formation heading the ridge.

A similar system in the western Indian Ocean--the Chagos-Laccadive Ridge--serves as a reference point for the western edge of the Indian plate. By dating the plate's motion as recorded along the Ninetyeast Ridge, scientists will be able to determine the movement of the eastern edge of the Indian plate through time and its eventual

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collision with the Asian continent.

Because Broken and Ninetyeast ridges lie between Africa and Asia, scientists will also be able to recover a good sediment record which should give them information about two major events: the evolution of the great deserts on the two continents and the cycle of glaciation in the Southern Hemisphere.

The southern Indian Ocean is dominated by a system of wind patterns that have fluctuated and migrated through time. By identifying the atmospheric conditions over millions of years, scientists can determine how the changes in wind patterns cause the alternate periods of heavy rainfall and extreme drought associated with the formation and evolution of deserts.

By learning more about the ancient climates of the Southern Hemisphere, scientists will have a better understanding of the connection between wind patterns, ocean circulation and cycles of glaciation and their correlation with the climate history of the Northern Hemisphere.

Co-chief scientists for the cruise are Dr. John Peirce of Petro Canada, Calgary, Alberta, and Dr. Jeff Weissel of Lamont-Doherty Geological Observatory of Columbia University, Palisades, New York. Dr. Elliott Taylor, Texas A&M University, College Station, is the ODP staff scientist.

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

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Kingdom.

The 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.

"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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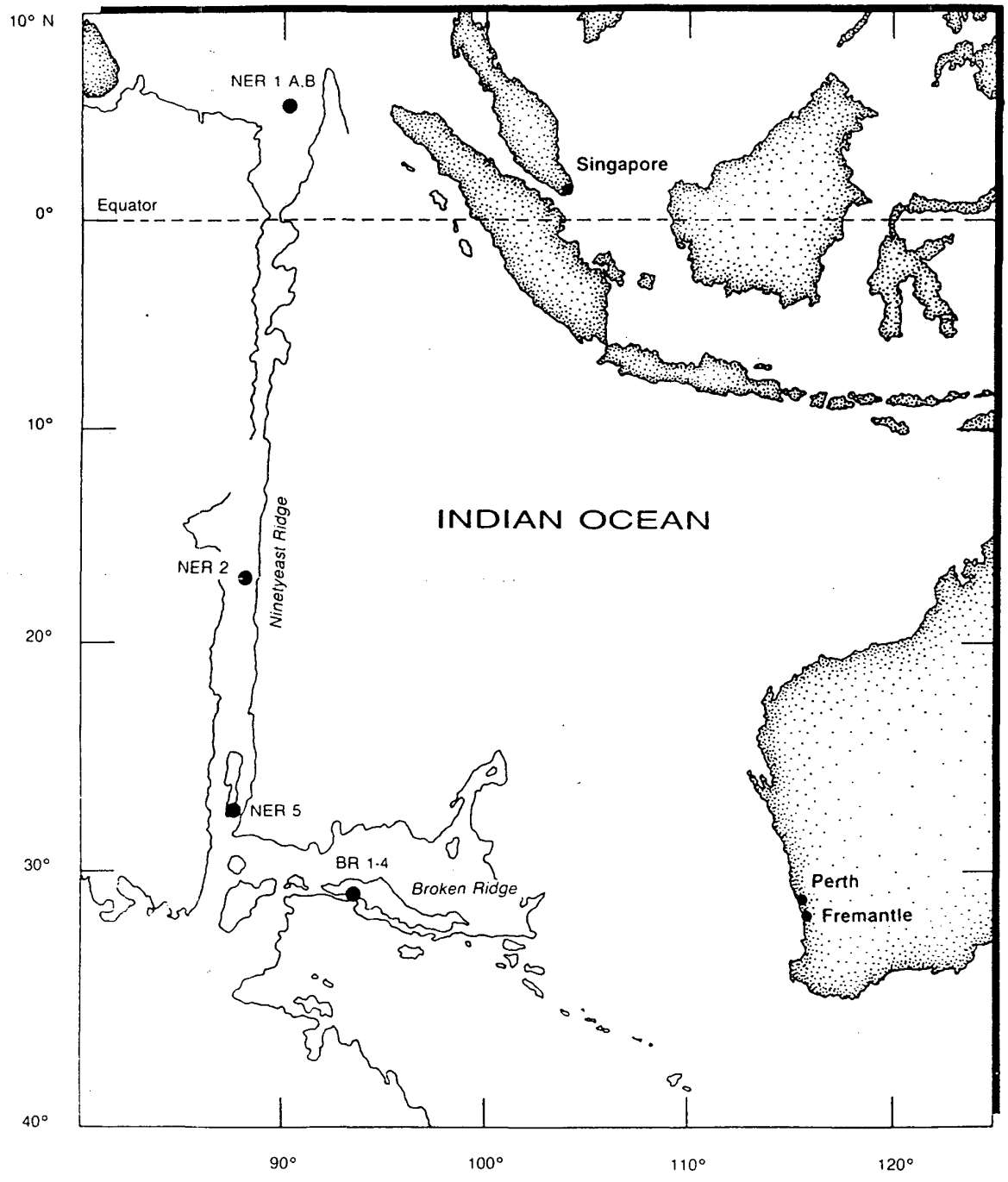
(Note: JOIDES institutions are: University of California at San Diego, Scripps Institution of Oceanography; Columbia University, Lamont-Doherty Geological Observatory; University of Hawaii, Hawaii Institute of Geophysics; University of Miami, Rosenstiel School of Marine and Atmospheric Science; Oregon 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 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.)



PROPOSED SITES FOR OCEAN DRILLING PROGRAM LEG 121
Indian Ocean: Broken Ridge and Ninetyeast Ridge
May and June 1988