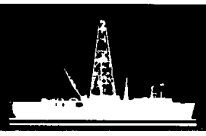
NEWS RELEASE
Ocean Drilling Program



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

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Leg 114.1

COLLEGE STATION, Texas -- Every school child learns that the Antarctic continent is an inhospitable land of massive ice sheets, little or no vegetation and a climate so severe that it precludes long-term human habitation.

Antarctica, however, is more than an isolated land mass whose only claims to scientific investigation are its harsh climate, tabular ice masses, penguins and whales. The region's tectonic evolution has played a critical role in determining the world's climate and ocean circulation through time.

Scientists on Leg 114 of the Ocean Drilling Program are currently on board the drill ship, JOIDES Resolution. They are drilling for cores of sediment and rock in the sub-Antarctic Atlantic Ocean, directly above and to the east of the South Sandwich Islands between 50 and 55 degrees southern latitude.

Extreme environmental conditions and difficulty in obtaining deep-sea cores have resulted in a paucity of information about the geologic evolution of the Southern Ocean, the world's longest stretch of ocean water. The objectives of the two-month cruise are to learn more about the sub-Antarctic's tectonic history and the processes that

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have determined today's worldwide environment.

Until about 65 million years ago, Antarctica and Australia were joined, and South America and Antarctica were tenuously connected by a thin strip of land. Between 65 and 55 million years ago, Antarctica drifted to its present position, centering over the South Pole. By 53 million years ago, Australia had begun to drift northward away from Antarctica.

During this time, as the land masses were drifting to their present-day locations, no significant glaciation had occurred in the southern high latitudes. About 38 million years ago, in what scientists call the terminal Eocene event, the bottom water temperatures abruptly dropped and large-scale freezing conditions at sea level developed around the Antarctic, forming the first significant sea ice. Between 20 to 25 million years ago, the Drake Passage opened, terminating the connection between South America and Antartica. The Antarctic continent was, and continues to be, completely isolated from all other land masses, surrounded by a continuously circling water current, the coldest and densest in the world.

As the glacial water enters the Weddell Sea, it forms dense bottom water that begins moving northward into the Atlantic Ocean. The cold water mass crosses the equator, flowing as far as 40 degrees north -- about the same latitude as New Jersey -- before warming and decreasing its density.

Although the climate and atmosphere on both sides of the Atlantic are directly connected to the cold, massive bottom waters originating

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at the South Pole, scientists know very little about the region's geological history. New information about the ancient environment and development of water masses at the South Pole will give scientists a better understanding of how today's climate and ocean circulation evolved and possible conditions in the future.

Another ancient feature also affected North and South Atlantic water exchange. The mid-ocean ridge, an enormous underwater mountain chain, which is the site of seafloor spreading, snakes down the middle of the Atlantic. At one point in the ridge, between the South Sandwich Islands and the tip of South America, an abnormally high rate of volcanism built a huge barrier which blocked deep-water exchange. As the seafloor continued to spread through time, this ridge rifted in two, swinging open like an enormous subterranean gate to allow a massive deep-water exchange that continues to affect the world's climate and oceanic circulation. Drilling in this region will allow scientists to determine the stages of this dramatic geologic event.

Leg 114 is one of four cruises scientists hope will eventually complete the puzzle of the Southern Hemisphere's tectonic and ocean circulation history. Coupled with Leg 113 that just completed drilling in the Weddell Sea, and combined with results from future drilling in the Kerguelen Plateu region in the Indian Ocean, a complete circum-Antarctic climate and glacial history may finally emerge.

Dr. Paul F. Ciesielski, University of Florida, Gainesville, and Dr. Yngve Kristoffersen, University of Bergen, Norway, are the co-chief scientists for the cruise. Dr. Bradford Clement is the ODP

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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, the Federal Republic of Germany, France, Japan and the United Kingdom.

The 470-foot-long drill ship's derrick towers 200 feet above the waterline. A seven-story laboratory stack provides facilities for on board examination of sediment and hard-rock cores. Laboratories contain space and equipment for studies in 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. To do this, Texas A&M maintains shipboard scientific labs, provides logistical and technical support for shipboard scientific teams, manages post-cruise activities, is curator for the cores and of 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 Institutions (JOI, Inc.), a nonprofit consortium of 10 major U.S. oceanographic institutions, manages the program.

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"After the end of Leg 114 in May, the ship will spend the next 18 months drilling in the Indian Ocean," announced Dr. Philip D. Rabinowitz.

The Indian Ocean is the least scientifically explored of the world's oceans. "Because we have done almost no deep-sea drilling in the entire Indian Ocean, our knowledge of its tectonic features, ocean currents and ancient environmental regimes is extremely limited," Rabinowitz explained.

The evolution of the Indian Ocean is directly linked with the destruction of the ancient Tethys Sea, the origin of the Himalayan mountain range and the development of the circum-Antarctic current.

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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 fuer 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.)