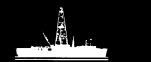
## **NEWS RELEASE**

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 105.1

ST. JOHN'S, Newfoundland -- JOIDES Resolution, the drillship for the Ocean Drilling Program (ODP) left St. John's today to drill in Baffin Bay and the Labrador Sea. The ship will obtain core samples from beneath the seafloor by drilling as far north as 70 degrees latitude and as deep as a mile and a quarter -- the first scientific ocean vessel to drill holes this deep and this far inside the Arctic Circle.

Scientists hope that the cores they recover will answer their questions about events that changed the world's climate 40 to 45 million years ago, causing a gradual cooling which eventually led to the dawn of the ice ages beginning about three million years ago.

The drillship, registered as SEDCO/BP 471, is the research vessel for ODP, a project funded by the United States, Canada, France, Japan and West Germany.

Baffin Bay is an extension of the Atlantic Ocean, reaching north between Canada and Greenland. Because severe weather conditions in this area usually prevent scientific expeditions, little is known about its geologic history. Scientists believe that this sea was once a channel between the Arctic and Atlantic

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oceans. The currents that flowed through this narrow ocean are thought to have had a strong effect on the world's climate. When blocked. Scientists believe that the isolation of these currents may have contributed to the general cooling of Earth which led to the ice ages.

Before this cooling trend, the area surrounding Baffin Bay was apparently much milder. Scientists have long puzzled over the evidence left by fossils that alligator-like creatures once roamed Ellesmere Island along the coast of Baffin Bay. Although fossils found on the land mass have been examined, no record of ancient plant and animal life buried below the seafloor has been obtained. By retrieving cores of rocks and sediments, scientists hope to correlate the undersea fossil record with the history of life on land.

To learn the climatic history of this region, it is critical to know how the Atlantic-Arctic seaway closed. By drilling in the Labrador Sea, scientists can answer major questions relating to its age and formation, a process that had a profound effect on the far north seaway.

JOIDES Resolution is the first scientific drillship with the ability to drill in the icy waters of the far north. Because of this first-time expedition, scientists are optimistic that results from this cruise will yield significant information about the evolution of Earth's climate. This knowledge, in turn, will help us better understand the changing nature of today's climatic environment.

Co-chief scientists for the cruise are Dr. Mike Arthur from

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the University of Rhode Island and Dr. Shiri Srivastava from the Bedford Institute of Oceanography, Canada. Dr. Brad Clement is the Texas A&M University staff scientist representative.

An international team of 25 scientists from Canada, Denmark, France, Germany and the United States will sail on the cruise. A technical crew of 25 and a ship's crew of 68 will also sail.

JOIDES Resolution is a 470-foot long drillship 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 onboard 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, as science operator, operates and staffs the drillship 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 distributes samples, and coordinates the editing and publishing of the scientific results.

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

The United States, Canada, France, Japan and West Germany

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

The next cruise, scheduled for November and December, will depart St. John's to drill newly formed rock at the Mid-Atlantic Ridge, announced Dr. Philip D. Rabinowitz, ODP director at Texas A&M.

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(NOTE: JOIDES institutions are the University of California, Columbia University, University of Hawaii, University of Miami, Oregon State University, University of Rhode Island, Texas A&M University, University of Texas, University of Washington and Woods Hole Oceanographic Institution.

Non-U. S. members are the 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 (IFREMER), France; and University of Tokyo, Ocean Research Institute, Japan.)