## **NEWS RELEASE**

Ocean Drilling Program



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COLLEGE STATION, TX -- JOIDES Resolution leaves Bremerhaven, West Germany, today on a scientific cruise to the Norwegian Sea. During the next two months, an international team of scientists on board the ship will work together to learn more about the sea's geologic history.

During the cruise scientists will investigate the structural and geologic history of Norway's continental margin to learn more about the ways in which ocean margins evolve through time.

A primary investigation will examine a geologic phenomenon called dipping reflectors. Analyses of seismic reflection records -- measurements of how sound waves travel through the various layers of the earth -- reveal an unexplained seaward-dipping layering of the rock strata beneath the portion of the seafloor that is adjacent to the continent.

By drilling to the bottom of the rock strata and retrieving samples, scientists hope to discover the reflector's origin which will yield important information about the early separation of continents and formation of ocean basins.

Scientists will also be studying another phenomenon unique

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to this area of the world. The Norwegian and Greenland seas in their connection with the Atlantic Ocean form a passageway in which the northern and southern hemispheres exchange cold and warm water masses.

This exchange has not remained the same through time as continents have continually shifted in their positions relative to each other and as glaciers have advanced and receded.

Particularly dramatic changes in worldwide climates have occurred through the glacial periods of the past three to four million years. The temperate climate found today in northwestern Europe, for example, depends upon the existence of the warm water influx into the Norwegian and Greenland seas. Scientists will study the evolution of the polar-latitude plant and animal life collected in the cores retrieved from beneath the seafloor to learn more about the climatic and glacial history of Earth.

Co-chief scientists for the cruise are Dr. Jorn Thiede of the University of Kiel, West Germany, and Dr. Olav Eldholm of the University of Oslo, Norway. Dr. Elliott Taylor is the Texas A&M University staff scientist representative.

JOIDES Resolution, whose registered name is SEDCO BP/471, is the research vessel for the Ocean Drilling Program (ODP), a project funded by the United States, Canada, France, Japan and West Germany.

The 26 scientists on board are from the United States,
Canada, England, France, West Germany, Norway, Italy, Denmark and
the United Kingdom. A technical crew of 23 and a drilling crew

add two

of 65 are also on this cruise.

The 470-foot drillship has 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 on-board 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 is science operator for the program and is responsible for the ship's staffing and scientific operations, overseeing core collection and analysis, and disseminating results. Lamont-Doherty Geological Observatory of Columbia University is responsible for downhole logging.

The U. S. National Science Foundation and its counterparts in Canada, France, Japan and West Germany fund the program through the Joint Oceanographic Institutions (JOI, Inc.) which manages the project. JOI, Inc. is a nonprofit 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.

It is anticipated that the United Kingdom and a consortium of countries within the European Science Foundation will join soon.

Upcoming cruises include high latitude drilling in the

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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.

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(NOTEL 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 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.)