

NEWS RELEASE

Ocean Drilling Program



For information:

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

March 15, 1985

Leg 102.1

MIAMI--JOIDES Resolution embarks on the second of a decade-long series of scientific cruises when it leaves Miami Tuesday, announced Dr. Philip D. Rabinowitz, director of the Ocean Drilling Program (ODP) at Texas A&M University.

Approximately every two months, 50 scientists and technicians plus a ship's crew of 65 embark on a cruise, exploring the oceans to retrieve core samples from beneath the sea floor. An international team of scientists works together to extract information and analyze the data from samples of the retrieved cores. In the process, they learn more about the evolution of the oceanic crust, long-term changes in the earth's climate, and movements of continents.

Leg 102 will seek to obtain comprehensive geophysical data from 110-million-year-old crust in the western Atlantic.

The crew will clean out, deepen and log a previously drilled hole at the southern end of the Bermuda Rise. The project requires using a variety of tools--seismic recorders, magnetometers, and heat flow and logging equipment--to learn more about the geophysical make up of old ocean crust. A two-ship

-more-

add one

seismic experiment will also be conducted in cooperation with the University of Texas research vessel Fred Moore.

The specific objectives of the cruise are to measure certain physical and chemical properties of the crustal rocks. Measurements include seismic velocity structure, permeability, porosity, in situ stress and paleomagnetic field intensities. These properties will be compared to those previously obtained from younger crustal rocks. Results should yield important information about how crustal rocks evolve as the seafloor spreads from the mid-ocean ridges.

Co-chief scientists for Leg 102 are Dr. Matthew H. Salisbury of the Scripps Institution of Oceanography, the University of California at San Diego, and Mr. James J. Scott of the U. S. Geological Survey in Denver, Colo. Dr. Christian A. Auroux, is Texas A&M staff scientist representative.

The scientific drillship, whose registered name is SEDCO BP/471, is the research vessel for the ODP, a project funded by the U. S. National Science Foundation and Canada, France, Japan and West Germany.

JOIDES Resolution returned Thursday from her first official cruise. During Leg 101, more than a mile of cored sediment was obtained from 11 sites throughout the Bahamas.

The drillship is 470 feet long and 70 feet wide with a derrick that towers 200 feet above the waterline. A computer-controlled dynamic positioning system, supported by 12 powerful thrusters and two main shafts, maintains the ship over a

-more-

add two

specific location.

The heart of the floating scientific research center is a seven-story laboratory stack which provides space and equipment for on-board examination of the cores including chemical, gas and physical properties, and paleontological, petrological, paleomagnetic and sedimentological studies. Marine geophysics research is conducted while the ship is under way.

Texas A&M University is science operator for the program and is responsible for the ship's staffing and scientific operations, overseeing core collection and analyses, and dissemination of results.

The NSF funds the program through the Joint Oceanographic Institutions, Inc. (JOI, Inc.) which manages the project. JOI, Inc., is a not-for-profit 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.

Plans for upcoming cruises include drilling off the coast of Spain, in the Norwegian Sea and high latitude drilling in the North Atlantic.

-30-

(Note: JOIDES institutions are: University of California at San Diego; 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 für Geowissenschaften und Rohstoffe, Federal Republic of Germany; Institut Français pour l'Exploration des Mers, France; and University of Tokyo, Ocean Research Institute, Japan.)