

NEWS RELEASE

Ocean Drilling Program



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Leg 101.1

MIAMI -- The U. S. drillship JOIDES Resolution begins a 10-year research mission when it leaves the port of Miami, Jan. 30, on Leg 101, its first official scientific ocean-drilling cruise.

The ship is the research vessel for the Ocean Drilling Program (ODP), a project funded by the National Science Foundation and participating international countries.

In a continuous series of cruises, each approximately eight weeks long, 50 scientists and technicians plus a ship's crew of 65 will circle the globe to retrieve core samples from beneath the ocean floor in some of the most remote but geologically important areas of the Earth. Scientists from around the world will perform research on samples from the retrieved cores to learn more about the evolution of oceanic crust, the rearrangement of continents and long-term changes in the Earth's climate.

Texas A&M University is science operator for the program and

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is responsible for core collection and analyses, and dissemination of the results.

The scientific objective of the first cruise, designated Leg 101, is to study the evolution of the Bahamas carbonate platform, a large area of coral reefs and sediments east of Florida. Specific investigations include changes in worldwide sea level, climatic changes, paleogeography, the uplift and down drop of the seabed, and changes in sediment distribution on the flanks of the carbonate platforms.

Plans call for seven holes of varying depths to be drilled in three areas of the Bahamas. The deeper holes, up to 1600 meters (almost a mile) beneath the sea floor, will be used to investigate the complex arrangement of the platforms and troughs that characterize the Bahamas, while the shallower holes will be used to examine variations in carbonate slope sedimentation.

Co-chief scientists for Leg 101 are Dr. James Austin from the University of Texas at Austin and Dr. Wolfgang Schlager from the Rosenstiel School of Marine and Atmospheric Sciences at the University of Miami. Texas A&M staff scientist representative is Dr. Amanda Palmer.

JOIDES Resolution, whose registered name is the SEDCO/BP 471, has undergone extensive renovation during the past several months in Pascagoula, Miss. She left port Jan. 11 on a shakedown cruise in which equipment for scientific and drilling operations was tested.

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"All systems were either functioning properly or we are able to make the necessary adjustments," said Dr. Philip Rabinowitz, project director. "Our goal during the shakedown was to turn over a scientifically and mechanically sound ship to the Leg 101 crew."

The 470-foot ship contains 12 laboratories occupying 12,000 feet of space in seven stories. The lab stack provides space and equipment for on-board examination of the cores including their chemical, gas and physical properties, and paleontological, petrological, paleomagnetic and sedimentological studies. Facilities for marine geophysics research are also available.

The ship's drilling system can handle 30,000 feet of drill pipe and can drill in water depths up to 27,000 feet.

"The JOIDES Resolution is a one-of-a-kind ship. No laboratory on land or sea has the variety of state-of-the-art instrumentation that we have," said Dr. Lou Garrison, deputy director of ODP.

Once drill cores are retrieved, samples are stored at three sites in the United States: Scripps Institution of Oceanography, Lamont-Doherty Geological Observatory (L-DGO) and Texas A&M. These repositories allow scientists to obtain samples relevant to their specific research interests.

The ODP follows the successful 15-year Deep Sea Drilling Project managed by Scripps. The drillship Glomar Challenger used in that project was retired last year from scientific exploration

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after logging more than 375,000 miles on 96 voyages across every ocean.

The NSF funds the program through the Joint Oceanographic Institutions, Inc. (JOI, Inc) which manages the project. JOI, Inc., is a non-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 future cruises include drilling in the Norwegian and Labrador Seas and Baffin Bay in the North Atlantic and in the Weddell Sea.

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(Note: JOIDES institutions are: the 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; Texas A&M University, Department of Oceanography; University of Texas, Institute of Geophysics; University of Washington, College of Ocean and Fishery Sciences; and Woods Hole Oceanographic Institution. Similar institutions in France and West Germany are also members. Canada and Japan have announced intentions to join.)