## **NEWS RELEASE**

Ocean Drilling Program



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Leg 101.2

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MIAMI--JOIDES Resolution arrived in Miami today after six weeks at sea during which time scientists investigated the geological history of the Bahamas, announced Dr. Philip D. Rabinowitz, director of the Ocean Drilling Program (ODP) at Texas A&M University.

The Bahamas cruise was the first of a decade-long series of geological studies to be conducted throughout the world's ocean basins. The crew comprised 25 scientists from the U. S. and abroad, plus 25 ODP technicians, scientists and engineers, and a ship's crew of 65.

During Leg 101, scientists tested two opposing theories by analyzing sediments from the channels between the banks to determine whether they were of shallow water (megabank) or deep water (trough) origin.

The present-day topographic configuration of shallow-water banks and intervening deep-water troughs has particularly interested geologists. One theory contends that until approximately 100 to 110 million years ago, a single, large megabank covered the entire Bahamas region until a rising sea

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level drowned the bank, leaving only isolated high-standing areas (the present Bahamas Banks). Other scientists maintain that the Bahamas have always existed in a form similar to their present-day appearance, with fault-bounded banks and troughs unchanged through time.

After drilling 19 boreholes at 11 sites throughout the Bahamas, and recovering more than a mile of cored sediments, the scientific crew determined that a large megabank did exist in the northwestern region of the Bahamas, drowned by a rising sea level about 100 million years ago. Similar results have been reported from studies of rocks in other regions of the world, suggesting that whatever caused the disintegration of the Cretaceous Bahamas megabank was a major worldwide event, possibly linked to climatic changes.

Co-chief scientists were Dr. Wolfgang Schlager of the Rosenstiel School of Marine and Atmospheric Sciences, University of Miami, and Dr. James A. Austin Jr. Institute of Geophysics, the University of Texas at Austin. Dr. Amanda Palmer was Texas A&M University staff scientist representative.

ODP is an international scientific endeavor funded by the U. S. National Foundation and Canada, France, Japan and West Germany.

JOIDES Resolution is a 470-foot drillship with a derrick that towers 200 feet above the waterline. The heart of the research vessel is a seven-story laboratory stack which provides space and equipment for on-board examination of cores including

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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 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.

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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, Institute of Geophysics; University of Washington, College of Ocean and Fishery Science; 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 pour l'exploration des mers, France; and University of Tokyo, Ocean Research Institute, Japan.)

Scientists participating in Leg 101 were: Co-Chief Scientists--

James A. Austin, Jr. (University of Texas at Austin, Institute for Geophysics)

Wolfgang Schlager (University of Miami, Rosenstiel School of Marine and Atmospheric Science)

ODP Staff Representative--Amanda Palmer, Texas A&M University

Participating Scientists--

Paul Comet (The University, Newcastle-Upon-Tyne, UK)

Andre Droxler (University of Miami)

Gregor Eberli (Geologisches Institut, FRG)

Eric Fourcade (Universite Pierre et Marie Curie, France)

Raymond Freeman-Lynde (University of Georgia)

Craig Fulthorpe (Northwestern University)

Gill Harwood (The University, Newcastle-Upon-Tyne, UK)

Gerhard Kuhn (Geologisches Institut, FRG)

Dawn Lavoi (NORDA--U. S. Navy)

Mark Leckie (Woods Hole Oceanographic Institution)

Allan Melillo (Rutgers University)

Arthur Moore (Marathon Oil Co.)

Henry Mullins (Syracuse University)

Christian Ravenne (Institute Français du Petrole, France)

Will Sager (Texas A&M University)

Joost Verbeek (Dutch Geological Survey)

David Watkins (University of Nebraska)

Colin Williams (Columbia University)