

Establishment of JOIDES Program

March 22, 1965

WOODS HOLE, MASS., March 22 - - - The National Science Foundation today announced a grant of \$200,000 to the Lamont Geological Observatory of Columbia University for the purpose of obtaining core samples of the ocean bottom several thousand feet deep. If successful, these operations will produce the longest cores yet taken from the floor of the ocean during the course of oceanographic research. The coring will take place in water as deep as 3,500 feet.

Four of the nation's largest oceanographic research institutions have pooled their scientific experience and facilities for a complete pursuit of these investigations. The four are the Institute of Marine Sciences (University of Miami), Lamont, the Scripps Institution of Oceanography (University of California, San Diego) and the Woods Hole Oceanographic Institution of Woods Hole, Mass. Dr. Fred N. Spiess, director of Scripps, and directors of the other three institutions have agreed to cooperate in this endeavor and have established the Joint Oceanographic Institutions' Deep Earth Sampling (JOIDES) Program.

The directors of all four institutions comprise JOIDES' Executive Committee. According to the Committee, the site selected for the first deep drilling and coring operation is the Blake Plateau. This is an undersea plain extending beyond and beneath the continental shelf off the coasts of Florida, Georgia and the Carolinas. This area was chosen because there already exists much geological and geophysical information about the adjacent land mass. In most coastal areas, the ocean bottom beyond the continental shelf drops off sharply to unattainable depths. The Blake Plateau, however, permits the drilling of significant holes on the ocean side of the continental shelf which will relate to information already in existence.

These previously conducted investigations combined with other oceanographic studies of the continental shelf itself, have permitted speculation on the nature of that area where the deep ocean meets the base of the continent. Scientists, however, still do not know how this transitional margin line was formed. They do not know whether the continents and the oceans have always been in their present sizes, or whether there have been marked changes in size within geologic time. In recent years, oceanographers have never found sediments in the ocean basins older than 100 to 150 million years. They do not know why. On the land, much older earth and rock structures are well known to geologists. The JOIDES program of deep earth sampling will provide some of the answers to these and many other problems.

The equipment which JOIDES will use for its deep drilling will consist of long sections of pipe three and one half inches in diameter which, attached end-to-end, are lowered vertically to the bottom. The lowest section will be equipped with a diamond coring bit which will bore into the ocean floor, filling the core barrel with bottom sediment or rock. The core barrel will be brought to the surface by means of steel cable which will be lowered through the inside of the drill pipe. These valuable cores, one and three fourths inches diameter, will then be extracted from the core barrel for investigations by the scientists.

Preparation of scientific objectives and the attainment of these objectives is the responsibility of a Planning Committee within the JOIDES structure. This committee, headed by Dr. F. F. Koczy of the Miami Institute of Marine Science, consists of one representative of each Institution. More detailed responsibility for operational procedures is held by an ad hoc planning group consisting of other representatives of the JOIDES institutions together with representatives of Columbia University, the U. S. Geological University. Robert Gerard, the University of Washington and Texas A. & M. Gerard of the Lamont Observatory has been designated as Chief

Scientist for the JOIDES ONE Expedition to the Blake Plateau. As such he will be in charge of all drilling, and coring operations. He will be assisted in the scientific planning and evaluation of results by Dr. John Schlee of the U. S. Geological Survey who has been named Principle Scientist.

In commenting on the JOIDES organization, Dr. Paul M. Fye, Executive Committee Chairman, emphasized the fact that the proposed scientific work will not necessarily be limited to the present four member institutions. Provisions exist under which new members may be taken into the organization. In addition, he said, samples of the sedimentary cores taken during the drilling operations will be made available on request by qualified members of the scientific community.

JOIDES plans six, possibly seven, coring operations during its first month long project on the Blake Plateau. Other expeditions will be planned; however, none are now scheduled. Drilling operations for JOIDES ONE will commence about April 18.