

No. 16585

**UNITED STATES OF AMERICA
and
UNITED KINGDOM OF GREAT BRITAIN
AND NORTHERN IRELAND**

**Memorandum of Understanding on the participation of the
United Kingdom in the International Phase of Ocean
Drilling (IPOD), an extension of the Deep Sea Drilling
Project (DSDP). Signed at London on 29 September
1975**

Authentic text: English.

Registered by the United States of America on 27 April 1978.

**ÉTATS-UNIS D'AMÉRIQUE
et
ROYAUME-UNI DE GRANDE-BRETAGNE
ET D'IRLANDE DU NORD**

**Mémoire d'accord relatif à la participation du
Royaume-Uni à la Phase internationale de forage des
océans (PIFO) qui constitue un prolongement du Projet
de forage à grande profondeur (PFGP). Signé à Londres
le 29 septembre 1975**

Texte authentique : anglais.

Enregistré par les États-Unis d'Amérique le 27 avril 1978.

MEMORANDUM OF UNDERSTANDING¹ BETWEEN THE U.S. NATIONAL SCIENCE FOUNDATION IN WASHINGTON, D.C., AND THE NATURAL ENVIRONMENT RESEARCH COUNCIL IN LONDON ON THE PARTICIPATION OF THE UNITED KINGDOM IN THE INTERNATIONAL PHASE OF OCEAN DRILLING (IPOD) AN EXTENSION OF THE DEEP SEA DRILLING PROJECT (DSDP)

The Deep Sea Drilling Project (DSDP) is an ongoing project of the U.S. Ocean Sediment Coring Program (OSCP) of the U.S. National Science Foundation. Its goal is to learn more about the structure, composition, origin and geologic history of the ocean basins and their relationship to the continents. This goal is being realized by drilling and coring the sediments and part of the underlying crystalline layers of the oceanic crust. The DSDP has been funded from 1966 through 1973 solely by the U.S. National Science Foundation through a contract with the University of California. The Scripps Institution of Oceanography, a part of the University of California at San Diego, is responsible for operations management. The University of California currently subcontracts with Global Marine, Inc., for the leasing and operation of the D/V *Glomar Challenger*, which provides the ocean going platform from which the drilling and coring are accomplished.

Scripps Institution of Oceanography plans the various scientific phases of the project with advice from a scientific advisory committee composed of distinguished scientists drawn from the international earth sciences community. The committee presently consists of representatives from the Lamont-Doherty Geological Observatory, Columbia University; the Scripps Institution of Oceanography, University of California at San Diego; the Woods Hole Oceanographic Institution; the Rosenstiel School of Marine and Atmospheric Science, University of Miami; the Department of Oceanography, University of Washington; the Hawaii Institute of Geophysics, University of Hawaii; Department of Oceanography, University of Rhode Island; Department of Oceanography, Oregon State University; Department of Oceanography, Texas A&M University; the Institute of Oceanology of the U.S.S.R. Academy of Sciences; the Bundesanstalt fuer Geowissenschaften und Rohstoffe (BGR) of the Federal Republic of Germany (FRG); the Centre National pour l'Exploitation des Océans (CNEXO) of France; the Ocean Research Institute, University of Tokyo, Japan; and the Natural Environment Research Council (NERC) of the United Kingdom.

Phase I of the DSDP began operations in 1968. It has since been extended twice; Phase III began August 1972, at which time international participation was invited. Drilling and coring during Phase III are scheduled to continue until September 30, 1975. Analyses and reports will be continued through June 1976 at which time the contract is scheduled to terminate. As of September 22, 1975, 391 sites have been drilled in the ocean bottom. Depths as great as 6200 meters with up to 1410 meters penetration of bottom sediment have been reached. Upon completion of Phase III, an

¹ Came into force on 29 September 1975 by signature.

International Phase of Ocean Drilling (IPOD) will be carried out from October 1, 1975, through September 30, 1978, with the participation of other interested countries. Scientific organizations of participating countries will be invited to be co-equal members of the scientific advisory structure for this program and these countries will provide scientific, technical, and financial contributions. The scientific objectives of drilling during the International Phase of Ocean Drilling are (1) to determine, through deep penetration below the sediments, the nature of the oceanic crystalline basement and (2) through a continued program of sediment coring conducted at sites both in the open ocean and on the continental margins, to determine the paleoenvironmental history of the world's ocean basins. From the results of shallow penetration in the continental margins scheduled for this period and the results of concurrently scheduled engineering studies, planning will be undertaken for a fifth phase of drilling designed to determine the geologic history, structure, and resource potential of the continental margins.

The U.S. National Science Foundation and the Natural Environment Research Council agree to co-operate under the conditions and work plans stated as follows:

1. The Natural Environment Research Council will support the IPOD phase of the DSDP with a total contribution of \$1,000,000 per annum, in cash or in kind, as mutually agreed, to be made available, beginning on October 1, 1975, for the first three years of the IPOD phase of DSDP. In the event that the program is delayed, this date will be adjusted accordingly. The financial contributions of all participants in the DSDP will be commingled to support the total program costs. Should the DSDP be terminated at any time prior to September 1978, one-twelfth of the contribution of the UK for the year in which such termination occurs will be refunded for each month remaining in such year.

2. The Natural Environment Research Council is now and will continue to be a member of the scientific advisory committee constituted to provide scientific advice to the Scripps Institution of Oceanography, the manager of the IPOD. Program plans are prepared by the Scripps Institution of Oceanography and submitted to the U.S. National Science Foundation for approval.

The Natural Environment Research Council will have the right:

- (a) To make proposals to the scientific advisory committee of scientific projects or objectives of special interest to the UK.
- (b) To participate in the analysis, and have access to the data, of geophysical site surveys funded by IPOD.

Additional site surveys may be contributed by the UK as available resources allow. The IPOD site surveying will be coordinated by the Scripps Institution of Oceanography.

3. The Scripps Institution of Oceanography selects the scientific team for each cruise. Because of the limited space for shipboard scientists aboard *Glomar Challenger* and in order to ensure equitable treatment for all non-U.S. nation participants, space, on the average, will be available for one to two UK scientists on each cruise of *Glomar Challenger* during IPOD. It is recognized that some cruises may be of special scientific interest to UK scientists and more UK participation may be appropriate. It is expected that a UK scientist will be invited to serve as co-chief scientist during some of the IPOD cruises.

The UK will have the opportunity to participate in the technical and/or drilling parties on IPOD cruises.

4. UK scientists will have access (through the Natural Environment Research Council) to IPOD data and core samples equivalent to that of the other participants. The Natural Environment Research Council will endeavour to ensure that the participating UK scientists and institutions shall provide the scientific data resulting from site surveys and laboratory analyses to the Scripps Institution of Oceanography in due time for preparation of the *Initial Reports* or their equivalent, which will be directed and coordinated by the Scripps Institution of Oceanography. In view of the UK contribution to the IPOD, 100 copies of each volume of the official IPOD scientific publications will be provided to the Natural Environment Research Council, for free distribution among British scientific establishments. These volumes may be published in the UK, in full or in part, without payment to or additional agreements with the American side. The NERC will provide the NSF with copies of all UK official publications that are based on IPOD material.

5. The Natural Environment Research Council will nominate to the Scripps Institution of Oceanography interested and highly qualified UK scientists to the Planning and Executive Committees of the scientific advisory committee and will advise on panel membership and cruise scientists, if requested. The Council will also recommend the names of highly qualified operations managers for operation at sea.

6. Salaries and fringe benefits for the UK participants will be borne by the UK side. The cost of internal U.S. travel and per diem of the members or alternates of the scientific advisory committee (executive, planning and advisory functions) for working sessions of this committee will be paid by the DSDP. All other costs, including the cost of travel to and from the United States, will be paid by the UK. The cost of participation in such meetings held outside the United States will be paid by each side for its own nationals. All other costs, including travel to and from *Glomar Challenger*, will be paid by the UK. The cost of internal U.S. travel and per diem for post cruise conferences required for the preparation of the *Initial Reports* or their equivalent will be paid by the DSDP.

7. The U.S. National Science Foundation will seek to facilitate, to the extent feasible, through collaboration with the appropriate authorities, the granting of visas and other forms of official permission for entry to and exit from the U.S. of personnel, equipment, and supplies when required for participation or utilization in the IPOD.

8. Other proposals of mutual interest for participation in the IPOD, above and beyond routine participation activities, will be considered, as appropriate, by representatives of the U.S. National Science Foundation and the Natural Environment Research Council. Such proposals may include scientific, technical and engineering matters.

9. Scientific and administrative representatives of the U.S. National Science Foundation and the Natural Environment Research Council, together with representatives of appropriate government agencies of other nations formally contributing to the IPOD, will meet once a year, as mutually agreed, for an Annual IPOD Program Review including a financial discussion, a review of scientific and technical achievements for the past year and plans for the coming year. Additional meetings may be held at the request of either party to discuss the terms and conditions of this Memorandum and other matters of mutual interest.

10. The UK retains the option of participating in any extension of the DSDP by renewal or renegotiation of the present Memorandum of Understanding, as appropriate.

11. Obligations arising from this Memorandum of Understanding may be terminated by either party giving the other party advance notice of at least six months.

12. DONE in London on September 29, 1975.

[Signed]

Sir PETER KENT

Chairman

Natural Environment Research Council

September 29, 1975

Date

[Signed]

ROBERT E. HUGHES

Assistant Director

for Astronomical, Atmospheric,
Earth and Ocean Sciences

U.S. National Science Foundation

September 29, 1975

Date