included membership in Phase III of DSDP, continuing through into IPOD. In 1974, The Bundesanstalt fur Bodenforschung (now the Bundesanstalt fur Geowissenschaften und Rohstoffe), Federal Republic of Germany became the second non-United States member and is currently negotiating continuing membership in IPOD. In 1975 the membership was further enlarged by the addition of four new members from the United States - Hawaii Institute of Geophysics, Oregon State University, the University of Rhode Island, and Texas A&M University. Also during 1975 we anticipate that France, Japan and the United Kingdom will complete negotiations for full membership in IPOD.

JOIDES intends to continue its role of fostering drilling programs and providing support for them. Through its various committees JOIDES will continue to provide scientific advice to IPOD. The JOIDES JOURNAL will serve the purpose of informing the various JOIDES panels and committees as well as other interested scientists about the JOIDES activities that relate to the drilling projects.

To date there are approximately 150 scientists from 12 different countries who are generously donating their expertise and some of their time to JOIDES. With this many people involved, good communications between members, between panels and between JOIDES and DSDP/IPOD become even more essential. It is with this is mind that the JOIDES JOURNAL has been introduced in the hope that it will help to fill the communications gap inevitable with growing membership.

Changes in JOIDES Structure for IPOD

The IPOD phase of drilling will commence in the fall of 1975. This phase will involve several changes from the first three phases of the DSDP program. Firstly, the change in scientific emphasis away from the geographic orientation in the past to a problem-oriented program. There will also be a concentration on fewer, deeper holes including some very deep (1 - 2 km) holes. This change in emphasis is reflected by the organization of the four new JOIDES panels - Ocean Crust, Passive Ocean Margin, Active Ocean Margin, and Ocean Palaeoenvironment, which are problem-oriented as opposed to the geographic panels they replace. The new panels also have mandates to occupy themselves with all aspects of their domain, to follow through from the site locations, to analysis of results, to their eventual publication. Thus the work of these panel members is considerably more comprehensive than in the past.

Site Survey Management

Because an entire leg, or possibly longer, may be spent on one IPOD hole, it is essential that the optimum location be chosen. For this reason, and to facilitate integration of the drilling results with the regional geological structure, greater emphasis will be placed on

IPOD site surveying, and the sites more thoroughly investigated than during the modest site surveys of Phases I to III. To ensure these ends, an IPOD Site Survey Management group has been set up at Lamont-Doherty Geological Observatory under contract from DSDP. The group is headed by Dr. M. Langseth and comprises two scientists, Drs. E. Herron and R. Markl, an Administrator, Dr. C. Moffett, and secretarial/drafting assistants. The Management's telephone number is 914-359-8883.

The objectives of the IPOD Site Survey Program are:

1. To provide the JOIDES advisory panels with the maximum information on selected areas.

2. To provide the scientists and operators on the drilling ship with accurate and detailed geophysical and geological information both to guide hole placement and to allow real-time interpretation of the drilling results.

3. To provide both local and regional information to enable interpretation and extrapolation of the results of the drilling.

It is intended that the IPOD site survey program will use the latest techniques available which will include narrow-beam soundings, multichannel, digitally-processed seismic reflection profiling, arrays of ocean bottom seismographs and, possibly, side-scan sonar, deep-tow instruments, and submersibles.

JOIDES Office

The growing membership in JOIDES created the need for some additional form of co-ordination, hence it was agreed that a JOIDES Office should be established. This is staffed at present by a full-time scientific co-ordinator, Dr. C. A. Williams, and a part-time secretary, Mrs. Anita Tucholke. It is intended that the JOIDES Office should be located in the same institution as the chairmen of the Executive and Planning Committees. Thus it is presently located at Lamont-Doherty Geological Observatory and will relocate every two years with the rotating chairmenships.

JOIDES Affiliates

This is an alternative level of international involvement with JOIDES/IPOD, and is at present being considered by six institutions representing scientists from Australia, Canada, Italy, Norway, South Africa and Switzerland. The criteria for JOIDES affiliates is the demonstration of (1) major interest, as exemplified by a relevent national program in the study of the seafloor and in participation in JOIDES, (2) the scientific capability to carry out with distinction studies in one or more disciplinary field of concern to JOIDES, (3) the affiliate institution must substantially represent the scientists in its country who are interested in JOIDES, and (4) affiliateship is subject

to the appropriate agency in its country contributing financially to the drilling project via the U. S. National Science Foundation.

JOIDES/IPOD/DSDP

There exists a certain amount of confusion between these acronyms. Historically IPOD, the "International Program of Ocean Drilling" was intended to replace the Deep Sea Drilling Project. However, the desire to recognize the continuity of the DSDP organization led IPOD to become known as the International Phase of Ocean Drilling and hence Phase 4 of DSDP under the National Ocean Sediment and Rock Coring Program support of NSF. JOIDES continues to provide scientific advice to DSDP and hence to IPOD.

JOIDES Panel Re-Organization

The shift in emphasis for the IPOD program also involves some changes in the JOIDES panel structure. After the end of Leg 43 (the final DSDP leg) all the JOIDES geographic panels will have been phased out, as the Phase 3 drilling in each ocean is completed.

The JOIDES Heat Flow and Well Logging Panels have not seen much activity in the past. Down-hole measurements, will, however, be regarded with increased importance during IPOD and the formation of a Down-hole Measurements Panel is under discussion by the Planning Committee. It is envisaged that the Down-hole Measurements Panel should interest itself not only in conventional well logging techniques and parameters, but also in specific down-hole experiments and will thus have wider interests than its predecessor.

The role of the JOIDES discipline panels, Palaeontology and Biostratigraphy, Inorganic Geochemistry, Organic Geochemistry, Sedimentary Petrology and Physical Properties and Igneous and Metamorphic Petrology in relation to the roles of the problem panels is also under discussion at the moment. It has been recommended that the Igneous and Metamorphic Petrology Panel be disbanded, since its task is now covered by the Ocean Crust Panel.

REPORT FROM THE PLANNING COMMITTEE

Initial Reports

With the commencement of deeper drilling, it is possible that more than one leg aboard GLOMAR CHALLENGER will be concentrated upon the same hole. It was decided that in such an event that the hole should be the unit for the Initial Report and that a single report should, in this case, result from two legs of drilling. Thus further co-operation between the shipboard parties will be required.

There has also been considerable concern to speed up the production of the Initial Reports and it has been decided that during IPOD the Initial Reports will be shorter and limited mainly to the contributions of the shipboard personnel. The IPOD reports will thus include fewer data interpretations and put greater emphasis on its initial nature, although some essential shore-based analyses such as dating, palaeomagnetic measurements, etc. will probably be included. It is envisaged that the remainder of the shore-based analyses and data interpretations will be the subject of a separate synthesis to be published sometime after the Initial Report. Each of these data syntheses will have a problem theme, the first of which may be on the North Atlantic transects.

The next DSDP Initial Report to appear will be for Leg 28, followed just a little out of sequence, by Leg 30.

Distribution of Initial Reports

There have been a number of complaints received about the difficulty of obtaining copies of Initial Reports from the Government Printing Office in Washington. Part of the problem is that the G.P.O. are not authorized to pay postage abroad and hence the requestee must send not only the cost of the volume, but also an amount to cover the postage in advance. The Planning Committee have agreed to approach NSF with a request to pay all foreign postage for Initial Report distribution. It is hoped that this would both simplify and hasten their dispatch.

Change in Sampling Procedure

With the increasing number of people now involved in the project, the growing number of analyses made, and hence the increasing number of samples requested, a change in sampling policy has been suggested. In the past the shipboard personnel found their work on board seriously curtailed by the time required to take core samples. Thus it has been decided that only pilot samples for the shipboard scientists will be taken on board, leaving detailed sampling for shore-based work to be done ashore. This will allow shipboard scientists more time in which to do their own work on board.

The Planning Committee, at the request of the Palaeoenvironment Panel, has recommended that continuous coring through all rock types should be practiced on a routine basis. This will produce an even greater amount of material for sampling and analysis, and it is hoped that it will help to complete the sampling of the sediment sequences for Palaeoenvironment studies.

The Ocean Crust Panel requests that all hard rock cores be split longitudinally and that one half of the core remains for reference purposes, while the other half is split into samples. This panel is also anxious that at least the hard rock part of the Initial Core Description is completed as soon after the end of the leg as possible, making the samples known and available for request sooner than at present.

Initial Core Descriptions

This publication containing (as the title may imply) initial core descriptions, appears in a green cover, and has been produced since Leg 28. Despite extensive circulation many people appear to be unaware of their existence. This may be because they are normally sent direct to the libraries of each institution and possibly get stacked on a remote shelf and escape further notice. If you are unaware of this publication, may we suggest that you first look in your library and if you still find no ICD's then contact either DSDP or the JOIDES Office about this. The next ICD to appear will be for Leg 36.

Shore-based Work

At present the various panels are compiling lists of the data analyses on the core samples they consider to be essential. Once the total list is compiled, the best method of organizing shore-based work will be considered. The way this work will be organized is as yet undecided, but the intention is to make the work required known through publication so that interested laboratories may make an application if they wish to do specific work on the samples. It is hoped that in this way the complete spectrum of the analyses required can be accommodated with the minimum of duplication.

Since no one laboratory will be able to cope with the large number of analyses required, the work will obviously have to be shared. This raises the problem of inter-laboratory calibration, since it will be essential that all analyses can immediately be related to common standards. Whether the work will be subdivided into geographical units or on a disciplinary basis has yet to be decided.

Some method of funding this work must also be looked into, since some interested laboratories may be unable to do such work on their existing funding basis.

Mediterranean Working Group

The Planning Committee recommended that an ad hoc mediterranean working group be set up, initially for the period of a year, within the Passive Margin Panel. It is not intended that this group should interest itself exclusively with the Mediterranean, although clearly its interests will be focused there initially. At the Passive Margin Panel meeting on March 3-6, the members of this group were nominated:- L. Montadert (Chairman), K. Hsu, I. Premoli Silva, W. Schreyer, M. Ball, W. J. Ludwig, A. W. Bally and J. Watkins.

Ad Hoc Working Groups

Perhaps it should be brought to the Panel Chairmen's notice that all panels have a mandate to set up small ad hoc working groups within the panel. These require the sanction of the Planning Committee and

also that the chairman of the working group be a panel member. This may well prove to be the most effective method of discussing specific issues not relevant to the entire panel and of calling upon specific knowledge and expertise of invited guests.

Shipboard Re-organization

A number of shipboard modifications have been made in preparation for the IPOD program. These were reported to the Planning Committee recently:-

1. Photographic facilities have been installed which will enable contact prints of the cores to be done on board, ready for insertion into the Initial Core Descriptions. This should help hasten the production of the ICD's. The camera can photograph 1 m core lengths as opposed to the 1.5 m on the present system, thus cores will now be split into 9 instead of 6 segments for photography. It appears that both black and white and color reproduction is feasible on board.

2. An XRF system and powder diffraction unit will be set up in the former ET shop.

3. A spinner magnetometer and AC demagnetizer, together with equipment for measuring viscous remanency has been recommended. The actual type of equipment has not yet been decided. These will eventually be set up in a corner of the palaeontology laboratory.

4. A sonic velocity at pressure instrument is under consideration. A machine is said to be available which is both relatively inexpensive and simple to install.

5. The core-splitting device is working well. It will be remodelled for shorter cores and removed outside onto the catwalk.

6. The GRAPE, for density and porosity measurements, will remain. There will also be two petrographic microscopes, but no electron microprobe, since this was considered to be too susceptible to vibrations of the frequency prevalent on board.

Status of Engineering Development for IPOD

Re-entry cone design is being re-examined by an engineering consultant in relation to the dynamic properties of sediments. Similarly another consultant is undertaking the problem of the design of riser and blow-out prevention systems. There exists a great paucity of information on engineering properties of continental margin type sediments and it is hoped that the IPOD I ocean margin drilling and the USGS drilling leg may assist in providing the right type of sediment samples for these measurements. A fundamental problem in logistics is that the orders for the hardware need to be placed sooner than NSF can provide the funds.

Just in case three years is not adequate for the technological development for IPOD II, an optional fourth year for IPOD I has been written into the contract with Global Marine.

Ocean Research and Engineering are undertaking the design study for a drilling ship or semi-submersible. This study should be completed within a month or so.

Drill Stem

The planned length of the drill stem for the first Atlantic phase of IPOD is 6,850 meters (22,500 ft). This will be increased to 8,150 meters (27,000 ft) probably by the end of 1977 for work in the Pacific.

Phase II capabilities will include at least 3,000 meters of riser with 5,150 meters of sub-bottom penetration.

USGS Drilling Program

A recent suggestion made to DSDP is that USGS should occupy one leg of GLOMAR CHALLENGER to drill on the ocean margin off the eastern seaboard of the United States. USGS have funds and would be willing to contribute to DSDP for this time - these funds could usefully be used to finance a down-hole measurements program during FY 1976.

Other than the fact that scientific staffing of the ship would be predominantly by USGS personnel, all aspects of this leg, sampling procedure, core storage, format of Initial Reports, etc., would be in compliance with the normal DSDP procedures.

It is proposed that this leg should be fitted in between Leg 43 and the beginning of the IPOD program. Thus after the USGS work, a refit of GLOMAR CHALLENGER, followed by a 2-week shake-down cruise, the IPOD I program would be scheduled to commence around the middle of November 1975.

Travel Funds

The DSDP travel budget for this year is seriously overdrawn. In the past, panel chairmen have been free to invite guests with specific expertise to join their panel meetings. While the importance of additional expertise cannot be over-estimated, the budget too must be considered. Panel chairmen are requested in the future to obtain prior sanction from either N. T. Edgar or J. I. Ewing for such invitations.

JOIDES Advisory Panel Meetings Held at Orangeburg N.Y. 22-25 October 1974

During these meetings the four problem oriented panels outlined their major objectives and formulated outline drilling plans. Since then most of the panels have met again to discuss more specific plans. The current status of the drilling plans are given here. The terminology used for hole depth is as follows:-

Shallow hole	single bit	100 - 300 m	into basement	1 - 6 days
Deep hole	1 re-entry	500 m+	into basement	6 - 10 days
Very deep hole	multiple re-entry	1 - 2 km	into basement	1 - 2 legs

OCEAN CRUST PANEL

One of the fundamental objectives of the Ocean Crust Panel is to construct and test geochemical, petrological, geophysical and geologic models for the ocean floor in order to compare fast and slow spreading crustal processes. An E-W and a N-S traverse in the North Atlantic will provide data on a slow-spreading ridge, to be compared with their fast-spreading counterparts in the Pacific Ocean. A document is in preparation which will more specifically state the scientific objectives for crustal drilling.

ATLANTIC CRUSTAL DRILLING PLANS

Figure 1 shows the currently proposed Atlantic crustal drilling sites and the areas of interest for the passive margin program (Sites 17-20).

E-W Traverse

This traverse has been designed to lie along a "flow-line" determined from magnetic anomalies and thus should illustrate the crustal variability with time. The traverse follows a line of multi-channel seismic reflection run under contract by the Digicon Corporation.

Site 1: This will be a deep hole in the western Jurassic quiet magnetic zone on 165 m.y. old ocean crust. Due to the depth of water and thickness of sediments at this site, it has been decided to postpone drilling at this site until IPOD IC - the second phase of Atlantic IPOD drilling.

Sites 2, 2a, 3, to 7 will complete the E-W traverse. Site 2 will be located on approximately 130 m.y. old crust, Site 2a may be either in the Cretaceous magnetic quiet zone or on anomaly M1, Sites 3 to 5 will lie on crust aged 75, 40 and 9 m.y. respectively. Site 5 is intended to be a prime candidate site for a very deep hole and the first two Atlantic drilling legs will concentrate on penetrating as deep as possible here. The plan remains flexible in that should this site be unsuitable for deep penetration, and any of the other sites along the traverse more suitable, then drilling will continue to depth at an alternative

priority site yet to be chosen. This traverse will also suitably sample the typical layer 2B and 2A seismic velocity zones, which appear to correlate with Cretaceous and Pre-Cretaceous crust respectively.

On the eastern flank of the Mid-Atlantic Ridge sites 6 and 7 will be on crust aged 9 and 75 m.y. and are designed to mirror image sites 5 and 3 to provide information on the symmetry of crustal variations.

Longitudinal Traverse:

The original intent of this traverse was to sample the crust at seven shallow sites at intervals along the length of the Mid-Atlantic Ridge between Iceland and the Vema Fracture Zone. It was to follow magnetic lineation anomaly 5 west in order to investigate crustal variability along the length of the ridge crest at a single interval in time.

Site 9 was intended to be at 60°N on the Reykjanes Ridge, Site 10 to be within the Bedford Institute Survey area near 45°N, Site 11 near 41°N between 45° and the Azores geochemical anomaly. Site 12 is in the FAMOUS region where DSDP Site 334 may be extended into a very deep hole. Site 13 is near 31°N, just north of the Atlantis Fracture Zone, Site 14 is in the TAG corridor at about 25-26°N, just north of the Kane Fracture Zone.

Site 8 on the Vema Fracture Zone extends this traverse to 12°N, where a series of 5 holes is planned. Four of these holes would lie on ocean floor of the same age, being on anomaly 5 east to the north of the fracture zone and on anomaly 5 west to the south of it. The distal holes are planned to be 60-100 km north and south of the fracture zone and the proximal ones as close to the north and south walls of the fracture zone as possible, one hole will be in the center of the active part of the fractur zone.

Various modifications have since been suggested to this plan and will be further discussed at the next Ocean Crust Panel meeting.

Site 9 may be moved to 63°N onto anomaly 5 east, just south of Iceland, and Site 11 may be located on the same flow line as Site 9 on anomaly 13 east (38 m.y.).

It is also suggested that Site 13 be moved to anomaly 13 west, north of the Oceanographer Fracture Zone along the corresponding flow-line to the FAMOUS area.

Sites 11 and 13 are recommended as potential deep drill sites.

Site 15: Consideration is being given to a very deep hole in the Venezuela Basin to penetrate below Layer 2B and sample a 6.2 km s^{-1} layer which lies within a region characterized by a broad structural dome.

Site 16: The Ocean Crust Panel has recommended a hole in the eastern end of the Cayman Trough. A possible location is in the area where submersible work is now being planned.

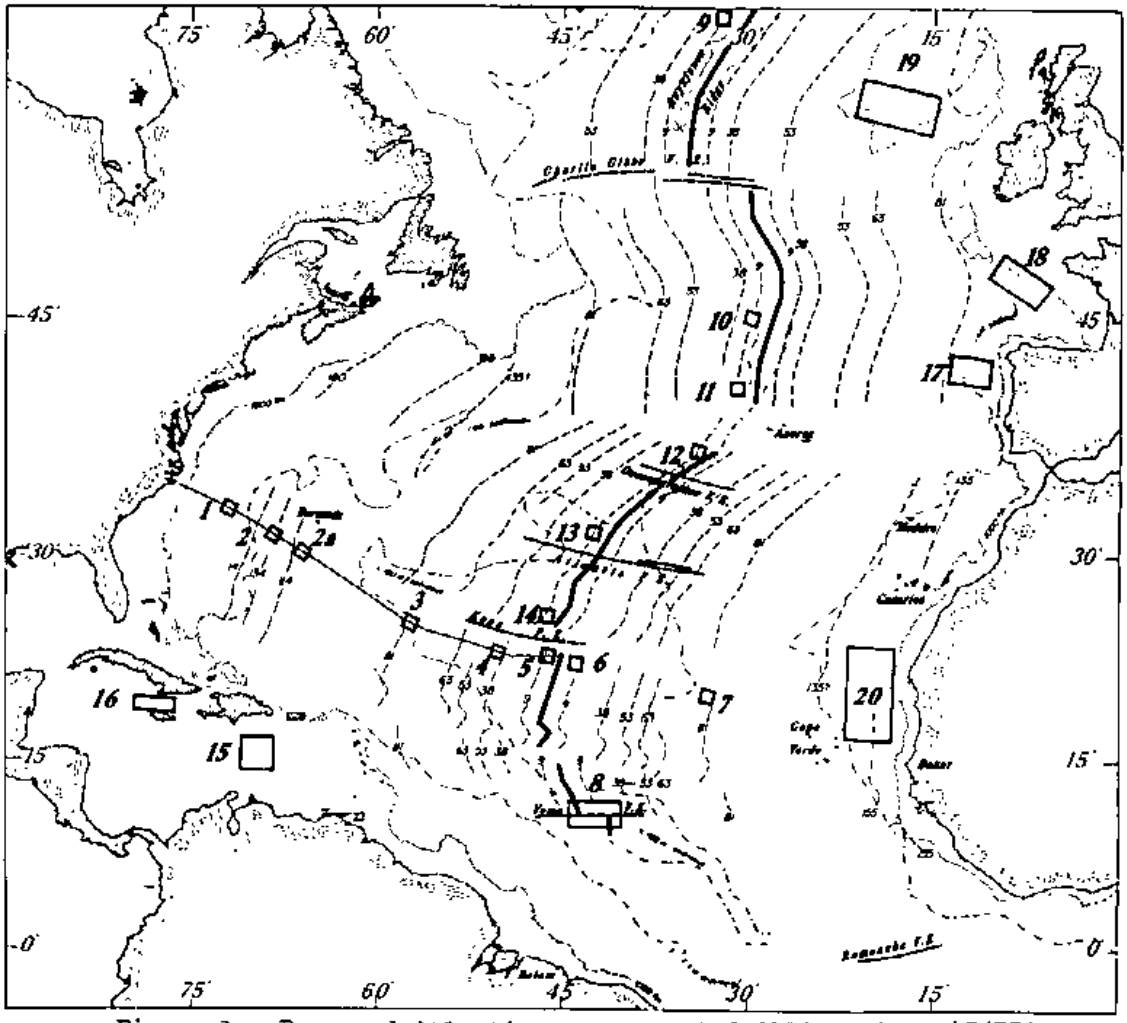

Figure 1. Proposed Atlantic ocean crust drilling sites (5/75)

APPROXIMATE DRILLING SCHEDULE
(IPOD IA)

Leg 45	Site 5	mid Nov. '75 - Jan. '76
Leg 46	Site 5 + {Sites 2, 2a	Jan. '76 - Mar. '76
Leg 47	{3, 4, 6 & 7}	Mar. '76 - May '76
Leg 48	N.E. Atlantic }	May '76 - July '76
Leg 49	Passive Margin sites }	July '76 - Sept. '76
Leg 50	Longitudinal traverse (sites 9-15)	Sept. '76 - Nov. '76
Leg 51	Vema Fracture Zone (site 8)	Nov. '76 - Jan. '77
Leg 52	Venezuela Basin	Jan. '77 - Mar. '77
Leg 53	1st IPOD Pacific Leg (IPOD IB)	Mar. '77 - May '77

PACIFIC CRUSTAL DRILLING PLANS

Sites 1-3: Recent ocean crust: Two (possibly alternative) sites are proposed; the southern end of the Gulf of California, north of the Tamayo Fracture Zone, or on the Juan de Fuca Ridge crest. The requisites for this site are adequate sediment for spudding into as young aged crust as possible. This site should provide information on water circulation within the oceanic crust, thermal gradients and provide unweathered samples for geochemical studies as well as allowing investigation of the structure and distribution of pillow lavas and dykes. The presence of sediment at the ridge-crest causes an intermixing of lava and sediment, making these sites ipso facto anomalous. However, the value of obtaining very young samples is considered to outweigh this disadvantage. There is some evidence that lava/sediment sequences are the most favorable for deep drilling conditions and this may prove to be an extremely successful site and ideal for down-hole experiments and logging.

Sites 4a and b: Fast-spreading transect, deep sites on 2 & 5 m.y. old crust: After consideration of the fastest Pacific spreading area near 20°S, this was rejected on the grounds of lack of sediment and remoteness. As an alternative the panel considered the proposal of Dorman et al. to drill near the Siqueiros Fracture Zone. This was favored, despite poor magnetic definition beyond 5 m.y., because sediments are thought to exist in ponds within 10-20 km of the ridge axis, and seismic refraction data indicate a low velocity zone (magma chamber) centered beneath the median zone. The spreading rate here is approximately 6 cm yr^{-1} over the last 10 m.y., three times that of the Atlantic and adequate to compare geochemical evolution of fast and slow spreading ridges. This will be one of the high priority sites for very deep penetration.

Sites 5 and 6: Transect near 25°N: Site 5, a shallow hole on anomaly 10 and a deep site on anomaly 32 are proposed on a transect south of the Molokai Fracture Zone. This will be in line with the site in the Gulf of California and also the site 6 aged 75 m.y. will tie in with sites of the same age in the Atlantic. The spreading rate was high during the formation of these older anomalies and so will continue the fast spreading transect near the Siqueiros Fracture Zone, although not on the same flow-line.

Sites 6-10: Oldest Pacific crust and Jurassic quiet zone: Sampling the oldest known ocean crust will help complete the investigation of the geochemical evolution through time. Site 6 is on M1 south of the Kurile Trench and will date this important magnetic anomaly and also tie in with active margin sites in the Sea of Okhotsk. The Nauru Basin is one of the few places shallow enough to enable sampling of the Jurassic sea-floor and also where chert-free locations exist, here Site 7 is proposed to be on anomaly M22, the oldest identifiable anomaly, Site 8 will be a shallow hole in the magnetic "decay envelope" as the anomalies merge into the Jurassic quiet zone, the location for Site 9.

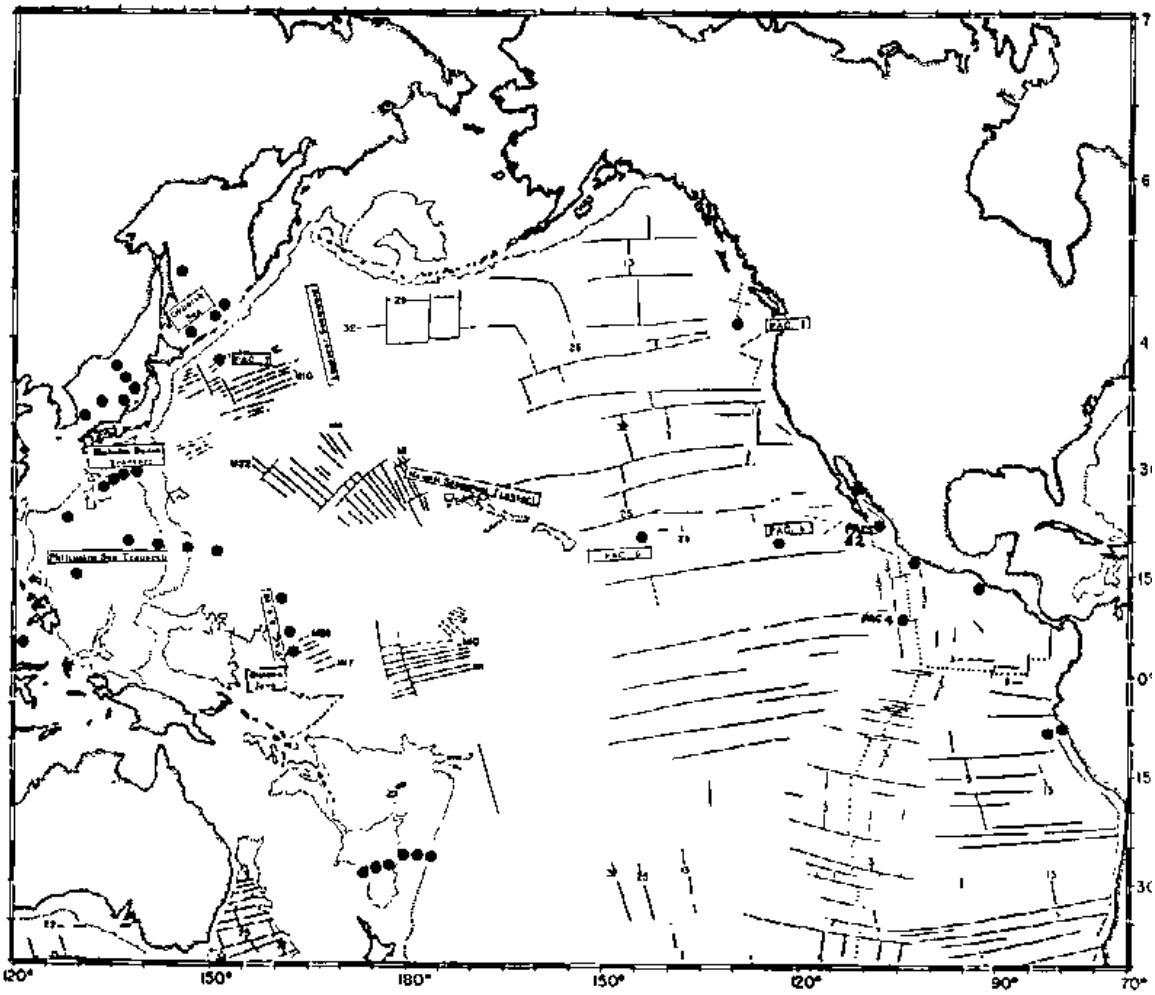

Figure 2. Proposed Pacific ocean crust drilling sites (5/75)

Other Pacific areas also being strongly considered are:-

Guayamas Basin: Where an abnormally high heat flow zone extends across a 2 km zone and typical values suggest a young igneous intrusion at depths as shallow as 250 m. Although there are no magnetic anomalies near this site the panel consider that this site may well be a good one to study the initial processes associated with crustal opening. A more specific proposal has been requested for this region.

Pacific Seamounts:

Hawaiian Emperor Chain: The Panel recommends that a 500 m penetration site on the slopes of Suiko Seamount and a shallow site along the Emperor Seamount near 47°N in order to determine the geochemistry, palaeolatitude and age of these seamounts north of the bend in the Hawaiian Emperor Chain.

Mathematician Seamounts: The panel noted that conditions may be such that time will be available to pick up critical "one bit" sites near shiptracks to and from prime sites or regions. In this respect the Mathematician Seamounts are conveniently located and could be developed into an alternative drilling site to investigate fossil ridges.

Other Seamounts: The panel remains interested in a number of regions and recommends that the site survey for the Siqueiros area include one or more of the abyssal hills also be surveyed as a possible alternative drilling site in this region.

The panel is also interested in the geochemical contrast between "plume" and "ridge" magmas as reflected in the different types of seamounts, and is thus interested in seamounts over a wide range of ages.

Plateau Sites: The Ontong-Java Plateau, or if the sediments prove to be too thick there, on the Manihiki Plateau is a suggested site to sample what appear to be plateau basalts.

Island-arc Transect: A transect across the West Philipine Basin - Mariana Trough - Parece Vela Basin is suggested, although these sites come within the domain the Active Margin Panel.

Working Group

The Ocean Crust Panel and the Active Margin Panel have agreed to set up a joint working group to look into the specific active margin sites which are of interest to both panels. This group will meet at Lamont-Doherty Geological Observatory on 22 May, 1975 and will pass on their recommendations for approval at the next Planning Committee meeting on 9-11 June 1975.

Local variation

It has been agreed that at agreed sites an additional hole will be drilled into basement to test for small scale crustal variability.

Down-hole Seismic Experiment

A proposal presented by Dr. D. H. Matthews to lower a seismic instrument into one of the very deep holes was given high priority by the Ocean Crust Panel. This experiment will provide better velocity measurements based on the mean velocity for a single ray path. It will also allow an evaluation to be made on the velocity log, and give some idea of the effect of fractures on velocity and sonic attenuation effects at typical seismic frequencies. A series of shots will be fired to the instrument out to a distance of approximately 11 km from GLOMAR CHALLENGER's launch.

Mini-computer

The Ocean Crust Panel wishes the Information Handling Panel to note that the proposed XRF until on board, will need a real time data reduction capability. The panel feel that there is a need for a shipboard mini-computer for this and other data processing needs and recommends that the Information Handling Panel look into the problems of interfacing mini-computers with the various analytical shipboard equipment.

DSDP Publications

The panel recommends that a modified and more comprehensive Initial Core Description be issued within 4 months of the end of a leg, and which should replace the shortened Initial Reports. This document could serve as a base for all sample allocations for shore-based studies. The panel strongly recommends that no samples be taken from the ship and that all sampling done will be aided by a good Initial Core Description and also that all thin sections, sub-samples, including analyzed powders, are to be retained by DSDP until the Initial Core Description is published. Sample requests may be submitted at any time, but allocation of samples will be made only by the curatorial staff.

ACTIVE OCEAN MARGIN PANEL

The overall objectives of this panel are to sample along transects from the ocean to the marginal seas across trenches of different morphologies and stages of evolution. It has been assumed that much of this program will take place during the latter part of IPOD, when increased technical capability, a longer drill stem, and blow-out prevention, will be available.

At the Orangeburg meeting the panel outlined the main areas of interest which were more precisely defined at their later meeting on 28 April to 1 May 1974 at La Jolla:-

ACTIVE MARGIN DRILLING PLANS

1. Peru-Chile Trench: A series of up to 6 deep holes across this trench near 10°S is suggested. This area was chosen on account of there being a strong contrast between oceanic and continental margin lithologies and an apparent convergence zone active since the late Eocene. Continental accretion is occurring accompanied by imbricate thrusting of either uplifted trench deposits or Palaeocene schists.

2. Middle America Trench: Three deep holes are proposed near 12°30'N off Guatemala across this "accretionary" trench in order to investigate evidence for or against episodic subduction, the nature of the thrust material, and the mode of slope accretion.

Two shallow holes are also proposed off Mexico at 18°N to investigate

the formational processes of the trench.

3. Lesser Antilles Trench: A single deep hole at the lower slope of this trench is suggested during IPOD-IA (first Atlantic phase) in order to ascertain the accretionary or otherwise nature of this trench.

4. Kurile-Okhotsk: A sequence of sites in the sea of Okhotsk, designed to provide insight into the formation of back-arc and marginal basins as well as the associated active arc, are suggested. An extensive part of the Sea of Okhotsk is thought to be underlain by either entrapped oceanic crust, or crust formed by back-arc spreading.

Two drilling transects are proposed, the first, consisting of three sites at the northern end of the Kurile Basin near the base of the Academy of Sciences Rise, and the second a series of four sites across the southern Kurile trench-arc and basin. The first site is on magnetic anomaly M1, a site also chosen by the Ocean Crust Panel.

5. Japanese Sea Transect: A series of up to eight holes are planned in this region to investigate the nature of the crust in this area with its high heat flow and magnetic anomalies. All but two of these holes demand penetration beyond the present capabilities of GLOMAR CHALLENGER and will be candidate sites for the IPOD Phase II program.

6. Philipine Sea Transect: A transect of eight holes is proposed across the Bonnin Ridge, Skikoku Basin, Kyusyu-Palau Ridge into the northern part of the Philippine Sea.

Data from these sites will check whether basalts previously encountered in the west Philippine Basin are flows or true basement, and test current hypotheses for the evolution of this area.

7. Tonga Trench-Arc, Lau Basin and South Fiji Basin: These features provide prime examples of an intra-oceanic trench-arc and interarc system and the study of these features may provide an opportunity to resolve the developmental history of active or young trench-arcs.

A transect of 7 shallow sites is proposed between the west wall of the Tonga trench and the eastern flank of the Three King's Rise.

8. South China, Sulu and Celebes Seas: These are back arc basins about which little is known. The South China Sea has an abnormally thin, yet seismically well defined, oceanic crust. The relationships of all three basins is not clear and further investigations should be co-ordinated with the IDOE program in this region.

Panel Recommendations

1. Interaction with discipline panels: The panel made a resolution to interact as much as possible with the discipline panels to keep them informed of the progress and thinking of the Active Margin Panel.

2. Shipboard data processing: The Information Handling Panel should be encouraged to consider on-line digital processing of analog data at sea. The panel considers that as much data as possible should be collected in this form with mini-computers, associated software and plotters provided to facilitate rapid computation and display.

3. Thin sections: The panel also recommends that thin sectioning facilities be retained on board, together with competent technical supporting staff.

4. Down-hole measurements: Down-hole measurements should include velocity, radioactivity and temperature logging, dipmeter surveying and continuous hole inclination measurements, together with down-hole seismic experiments. It was strongly recommended that a suite of laboratory measurements also be obtained which are compatible with down-hole measurements in order to tie very closely to the logged hole. These data should, if possible, be in digital format for rapid comparison between the two series of measurements.

PASSIVE OCEAN MARGIN PANEL

At the October meetings in Orangeburg, the different types of passive ocean margins were outlined and those sites suitable for drilling during the initial phase of IPOD, using the current technical capability, were listed.

N. E. ATLANTIC MARGIN DRILLING

At their meeting on 3-6 March 1975 in Zurich, the Passive Margin Panel formulated a margin drilling program in the N.E. Atlantic to be drilled during IPOD IA. Five alternative plans were presented which occupied either 2 or 3 legs of GLOMAR CHALLENGER and variously included and excluded the Mediterranean and the Norwegian Sea. The plan eventually approved by the Planning Committee at its meeting on 18-19 March was Plan E, having a duration of two legs, omitting both the Mediterranean and the Norwegian Sea, and concentrating on the region between N.W. Africa and the Rockall Bank region; 3 holes (2 shallow and 1 re-entry) are proposed west of Portugal, 2 shallow holes on the continental margin of the Bay of Biscay, 4 shallow holes around Rockall Bank, and 2 holes, one deep, one shallow, are proposed off N.W. Africa. The rationale for the choice of these sites will be given in the next edition of this Journal.

Delineation of Panel Domains: The panel agreed that the Indonesian Area and the South China Sea should come within the domain of the Active Margin Panel.

Better Communications: A motion was passed to submit both a set of complete minutes and a set of abstract minutes to the JOIDES Office. The abstract minutes are intended for inclusion in future editions of the JOIDES Journal. (This seems to be a good idea and might well be followed by other panels (Ed.).)

Co-operation with USGS: The panel recommends that co-operation be established between IPOD and USGS, particularly regarding drilling on the western margin of the North Atlantic. As a first step, it would be desirable for them to review relevant geophysical and geological information with members of the Passive Margin Panel with a view towards selection of potential drilling sites and to determine their willingness to provide funds for additional site surveying in this region.

Panel Interaction

Clearly interaction between panels is of the utmost importance, and there is room for improvement in inter-panel communications. The Passive Margin Panel pointed out several areas of potential overlapping interests between their own and other panels:-

1. Palaeoceanography: They consider that this is an important aspect for all margins but is inadequately defined in any problem. The Panel recommended that the problem "Palaeoceanography and its implications for marine stratigraphy" be added to the geological and geophysical problems already outlined. This will be an area for co-operation between both margin panels and the Ocean Palaeoenvironment Panel.

2. Mesozoic Carbonates: Interest was expressed in Mesozoic carbonates in relation to vertical tectonic movements. Interest in this topic is shared by several panels.

3. Standard Sections: It was suggested that perhaps the Palaeontology and Biostratigraphy Panel could provide standard sections for different oceans, which would be useful to the margin and palaeoenvironment panels.

4. Organic Geochemistry: There are certain sites of geochemical interest in the study of diagenesis and the Organic Geochemistry Panel would like to have input on site selections.

5. Clathrates: The Organic Geochemistry Panel is providing the Safety Panel with charts showing the theoretical range of clathrates at each site. The Passive Margin Panel also requests more information on the distribution of clathrates.

OCEAN PALAEOENVIRONMENT PANEL

An outline of the aims of this panel are to investigate the Cretaceous-Tertiary boundary. Ideal sites would be areas with high productivity and sedimentation where a good silica fossil record might be represented and where clay mineralogy could infer the sedimentary history. Synthesis maps of information available so far are to be drawn up.

The following drilling objectives were resolved:-

North Atlantic Traverse at about 30-35°N: To outline the middle to upper Jurassic history of the Atlantic, the early Cretaceous and Late Cretaceous/ Tertiary history, and Albian-Cenomanian black shale-chalk transition. Holes are proposed on anomaly 32 to sample Maestrictian/Campanian sediments and on anomaly 30 to sample the Late Maestrictian. Anomalies 13 (Upper Eocene) and 10 (Oligocene) are suggested to investigate palaeoenvironmental changes including glacial effects. In addition sites are proposed in the tropical Atlantic to investigate equatorial sedimentation and the history of Palaeo-upwelling.

South Atlantic: A similar traverse at approximately 30°S is proposed with holes in the Cape Basin for Lower Cretaceous samples, and in the Walvis Ridge, Rio Grande Rise, Sierre Leone Rise and Argentina Basin for Upper Cretaceous. In the Gulf of Mexico a hole north of Campeche is suggested to sample Cretaceous Tertiary silicious and calcareous nannofossils.

It is recommended that each hole is logged continuously and as comprehensively as possible, and also that all participating palaeontologists, chemists and sedimentologists publish tables and/or check lists of the standards they use.

It was proposed to develop a genetic model for the evolutionary history of the Atlantic and to compare it with models for other oceans.

This panel will be meeting again on June 3-6 in Zurich to further formulate their plans in the light of the programs designed by the other panels.

SITE SURVEY PANEL

At the Orangeburg meeting it was reported that a multi-channel seismic profiling traverse, subcontracted to the Digicon Company, was being made across the Atlantic along a "flow line" between 20° and 30°N. Since then this line has been completed out as far as the Mid-Atlantic ridge crest and the processed records should shortly be available.

The Panel reported that funding was available for approximately 3,000 miles of multi-channel surveying during the first three years of IPOD. It was hoped that further funds would become available later. It was agreed that multi-channel seismic reflection surveys were essential for all deep hole sites. The Panel stressed the importance of continuous logging with at least sonic and gamma radiation measurements.

At the subsequent site survey panel meeting in December, 1975 in San Francisco, it was agreed that sonobuoy refraction lines would help in determining the sites for the ocean bottom seismograph work. Most attention has so far been placed on the first part of the IPOD program and the site survey program developed in conjunction with IPOD Site Survey Management is as follows (the numbers referred to are as shown in Figure 1):-

Site 1: This site is to undergo preliminary survey by the University of Texas at Galveston during May and June 1975, with multi-channel seismic reflection and possibly follow-up work using ocean bottom seismographs by Lamont-Doherty Geological Observatory during the fall of 1975. The Ocean Crust Panel have since considered that this site would be better tackled later in the program when a longer drill stem will be available, thus at the Site Survey Panel meeting in Galveston on 25-27 March, it was decided to utilize some of the Site 1 survey time in the Venezuela Basin, Site 15, which will be drilled earlier in the program.

Sites 2, 2a and 6: These sites will be surveyed by Woods Hole Oceanographic Institution during August and September 1975. A detailed heat flow program will be carried out at Site 2.

Sites 3 and 4: These sites were surveyed by Lamont-Doherty during March and April 1975 although the ocean bottom seismograph work still remains to be done.

Site 5: The Hawaii Institute of Geophysics has done work in this area during March and April 1975 including an OBS survey. Earlier this year the AKADEMIC KURCHATOV undertook preliminary survey work in the area between sites 5 and 6 in order to relate the two sites.

Site 7: This site was investigated by L-DGO during February 1975 when magnetic anomalies 32 and 33 were identified, enabling site 7 to be located symmetrically to site 3.

Site 8, Vema Fracture Zone: During March, both R/V VEMA from L-DGO and AKADEMIC KURCHATOV worked in co-operation in this area. To the north of the fracture zone a star-shaped ocean bottom seismograph survey was made, using a total of seven Russian and American instruments, together with heat flow measurements and cores. To the south of the fracture zone and along the length of the fracture zone trough, split profiles were made using extended range sonobuoys. Shortly afterwards, the University of Maimi worked in this area, extending the area of geophysical survey.

Site 14: The AKADEMIC KURCHATOV visited this site on the TAG line near anomaly 5 west to undertake preliminary surveying.

Site 15: The University of Texas at Galveston will survey this site in June 1975, which will include 24-channel seismic reflection profiles.

Pacific Site 1: This site in the Gulf of California is scheduled to be surveyed by the University of Washington during May 1975, who will survey the sites suggested by both the Ocean Crust and Passive Ocean Margin Panels. Permission has also been gained to put geophones ashore on Baja California to extend the OBS refraction line.

Details of the further site surveying will be the subject of the Site Survey Panel's next meeting.

N. E. Atlantic Ocean Margin Sites:

The site surveying for this part of the drilling program will largely be carried out by European Institutions:-

France: A cruise is underway during April and May 1975 to do reconnaissance work near Portugal and the R/V FLORENCE will carry out multi-channel profiling during the autumn of 1975. A total of three months will also be spent in the Bay of Biscay with multi-channel capabilities.

Germany: The R/V VALDIVIA plans surveying on the N.W. African continental margin and in 1976 work is planned off S.E. Asia.

Great Britain: Plans exist to spend at least one month in the Bay of Biscay, possibly with a six-channel seismic reflection capability.

USSR: The R/V AKADEMIC KURCHATOV will be in the North Atlantic and will carry out single-channel seismic reflection surveying near Rockall Bank and on the Reykjanes Ridge.

THE RÔLE OF IPOD SITE SURVEY MANAGEMENT

IPOD site surveys will be mainly conducted by institutions in member countries of IPOD, although this does not preclude non-member countries becoming involved in IPOD in this way.

A major rôle of the IPOD Site Survey Management is to co-ordinate these surveying resources into an integral and comprehensive site survey program, compiling the results together with past work to assure that adequate data are available for all candidate drill sites. This management function is being sub-contracted to Lamont-Doherty Geological Observatory, Columbia University, by the University of California, which in turn is under contract to the National Science Foundation.

Another major task of the Site Survey Management is to provide funds for site surveys through subcontracts to U.S. Institutions and also to sub-contract multi-channel seismic profiling work in consultation with JOIDES Site Survey Panel, as well as the maintenance of an ocean-bottom seismometer capability to be available to participants in the site survey program.

An IPOD site survey data bank will be established and will provide presentations of the IPOD site survey data in the form of maps and graphs to appropriate panels and scientists participating in IPOD. Site survey management will also co-ordinate the survey results for inclusion as an essential part of the IPOD Initial Report Series. Scientists who carry out an IPOD site survey may publish the results, but they should be identified as a contribution to the "International Phase of Ocean Drilling of DSDP." Those making a significant contribution to the IPOD survey program will be invited to join a site survey working group. The SSWG

will be composed of scientists who have participated in IPOD surveys in the same or related areas. The SSWG, working with IPOD Site Survey Management, will prepare the comprehensive report to appear in the IPOD Initial Reports.

The IPOD data bank will be available to those on board the GLOMAR CHALLENGER, to panels responsible for selecting sites, drilling safety and surveys for drilling, and to members of IPOD Site Survey Management and to SSWG. A small facility will be maintained at Lamont-Doherty to enable scientists belonging to the above groups to work with the data. Limited numbers of copies of data presentations will be made available to these people and distributed for internal use only so that the proprietary nature of the results can be respected until the IPOD reports are published. The data will then be transferred to a data collection center designated by the National Science Foundation.

DEEP SEA DRILLING DATA SYNTHESES

It is anticipated that a considerable number of data syntheses will be produced; some have already been proposed, or are underway. The Indian Ocean is the subject of two of these; the furthest advanced being that organized by J. R. Heirtzler, which will be largely a compendium of the interpretative work from all the DSDP Indian Ocean drilling. Another synthesis is proposed by O. Weser, who intends to compile papers on the surrounding continents, as well as on the Indian Ocean itself.

On a larger scale is the co-ordinated 6 year program of synthesis of the DSDP results by W. W. Hay, involving many institutions and up to 200 scientists. A budget of approaching $6 million has been requested from NSF for this program.

This synthesis falls into three major parts:-

1. DATA SYNTHESES

   a. Palaeontologic data bank:- This will fall into three sections, each producing sets of maps:- Concerning itself with optimum stratigraphic sequences for each region, lists of species reported and their first and last occurrences if this is random with respect to other species, and resulting in maps showing joint occurrences of particular species, etc.

   b. Lithologic data bank:- This will involve the compilation of maps with lithologic data according to a standard sediment classification for each site, giving percentage carbonate, organic carbon opan, etc., thickness of recognizable intervals, the part cored and condition of cores, together with drilling rate logs.

   c. Tectonic data bank:- This will provide maps based on spreading rates, etc. for perhaps 25 instants in time and separate maps showing

the nature of the oceanic basement, palaeobathymetry and sediment thickness.

2. REGIONAL SYNTHESIS

These will involve the production of maps for each of the six designated regions:- Atlantic, Mediterranean, Antarctic, Indian Ocean, Southwest, North and East Pacific. The maps will cover topics such as 1) Instantaneous geologic maps (as core recovery is only about 30% from the holes, exact facies maps cannot be constructed). 2) Sediment thickness maps, 3) Isopach maps, 4) Percentage organic carbon maps.

3. GLOBAL SYNTHESIS

This will consist of three projects, the early stages presenting hypotheses for testing by the data and regional syntheses and later integrating the results of the regional syntheses on a global scale. Eventually it should provide an atlas of the marine geology of the world.

DSDP Leg 40 Report: Cape Town to Abidjan: 20 December 1974 - 15 February 1975

Co-chief scientists: W.B.F. Ryan and H. Bolli

There were three main objectives for this leg:

1. To determine the evolution of the Cape and Angola Basin continental margins from the Early Cretaceous to the present. These margins have been shown from seismic profiling to be subdivided into distinct units. In both basins these reflectors thin seaward and in the Angola Basin overlie up to 3 km of salt which in places has formed diapiric structures.

2. To evaluate the role of the Walvis Ridge in the early history of these basins.

3. To investigate the Angola basin evaporites.

Since re-entry capability was not available on this leg, erosional unconformities were taken advantage of at three sites to penetrate early Cretaceous sequences:-

Site 360 in the southern Cape Basin off the southern tip of Africa penetrated Pliocene to Eocene sediments.

Site 361 cored Eocene to lowermost Aptian at a location where the Tertiary sequence has been stripped by erosion. Seismic reflection records trace the continuation between the two sites and indicate an overlap of sections of about 100 meters. Igneous basement was not quite reached, despite a

record penetration of 1,304 meters.

Site 362 on a buried portion of the Frio Ridge portion of Walvis Ridge recovered a complete Pleistocene to Eocene section, while

Site 363 on an exposed peak of the Frio Ridge, a section from middle Miocene to Lower Aptain was obtained.

Site 364 attempted to sample a section from the Quaternary through to the Cretaceous down to the salt in the Angola Basin. The bit destroyed itself just a few tens of meters short of this objective, reaching Aptain sediments of high salinity.

Site 365 a few km away from site 364, was an attempt to reach salt. Time prevented optimum penetration and high salinity sediments were encountered in the final core, indicating that salt must have been very close.

The most revealing lithologies were the Lowest Aptian/Barremian sapropelic shales interbedded with siltstones and massive silty sandstones. Upper Aptian to Lower Albian sapropelic shales and marly dolomitic limestone overlying salt were also found at site 364. The sapropelic sediments are rich in pyrite and plant debris, they have a high gas content and in places are converted into coal. These sediments indicate that totally stagnant euxinic conditions existed through much of the Lower Cretaceous in both the Cape and Angola Basins. At site 361 shales and sandstones later filled the basin at the incredible rate of over 60 meters per million years.

The cessation of salt deposition appears to be no later than lower Upper Aptain and as the South Atlantic widened, circulation patterns allowed oxygenation of bottom waters at Site 361 in the Cape Basin by Upper Aptian times. In the Angola Basin, however, the euxinic conditions persisted at Site 364 until Lower Albian, recurring in the Upper Albian to Santonian. The Walvis Ridge clearly formed a barrier between the Cape and Angola Basins at this time, just as it does today, deflecting the upwelling cold Benguela current to the west. Antarctic water eventually enters the Angola basin from the north after winding along the S.W. Atlantic and through the Romanche Fracture Zone. By this time it has mixed considerably with warmer waters and no longer upwells to provide prolific nutrients to the Angola Basin waters. Hence productivity north of the Walvis Ridge is poorer than to the south of it.

After the last of the sapropelic shales in the Angola Basin in Coniacian time, the South Atlantic experienced an interchange of shallow and deep waters allowing normal pelagic and calcareous sediments to accumulate. In both basins, terrigenous influx waned sharply in the Upper Cretaceous in Sites 361 and 364 as well as on the Walvis Ridge at Site 363. After this decline the sediment types reflect the depth of the locations with respect to the carbonate compensation depth. Pelagic clays, marly chalks, chalks and calcareous oozes are the predominant Late Cretaceous and Cenozoic lithologies at all sites with the exception of

Oligocene to Quaternary sediments at Sites 364 and 365, which are largely terrigenous muds from the Zaire (formerly Congo) River.

DSDP Leg 41 Report: Abidjan to Malaga, 17 February - 10 April 1975

Co-chief scientists: Y. Lancelot and E. Seibold

Five holes were drilled during this leg with the main emphasis being on investigating the sedimentary history of the N.E. Atlantic in such a way as to compare it with the south and western North Atlantic. These findings should also bear on fundamental problems related to rifted margins in general.

The sites occupied were two deep basin sites, 367 and 370, two continental rise sites, 366 and 368 and one continental slope site, 369.

Site 366 on the Sierra Leone Rise was continuously cored down to Upper Maestrictian sediments at 850.5 meters and a complete pelagic Cainozoic record recovered. The section consists of nanno and marly oozes, grading downwards to chalks, marls, limestones and marlstones. No hiatus occurs on the rise and all the bio-stratigraphic zones were sampled. In fact, the co-occurrence of different microfossil groups in most of the section makes it an ideal reference section for Cainozoic zonation in tropical-subtropical latitudes.

The results of this site indicate that the Sierra Leone Rise has been a slowly subsiding deep water pelagic environment during the Tertiary and Quaternary, and well above the CCD since the Late Cretaceous. A major seismic reflector observed at 0.5 sec was found to correspond to the youngest occurrence of Middle Eocene porcellanites and chert.

Site 367 in the Cape Verde Basin where a 1,153 meter section was drilled in the magnetic quiet zone. The hole bottomed after 8 m of penetration into basalt overlain by ?middle to upper Jurassic sediments. It is not entirely clear whether the basalt represents the top of Layer 2 or whether it is a sill. The most striking observation from this site is the similarity of the Mesozoic part of the section to sites in the Western North Atlantic, especially Site 105 and in the South Atlantic.

The Aptain Cenomanian interval is characterized by the occurrence of black carbonaceous shales displaying many characteristics of a reducing environment - organic matter up to 6.7%, pyrite, siderite and methane. Similar sediments of ?Turonian-Albian age were found in hole 368 on the Cape Verde Rise. Geochemical analysis should shed some light on the origin of the organic material. The black shales are clearly source rocks for hydrocarbons as demonstrated by the presence of light and extractable hydrocarbons possibly "distilled" by the heat of the post-Albian diabase sills at the bottom of site 368. After the black shale episode, the sedimentation became predominantly terrigenous.

Site 368 on the Cape Verde Rise. This site was sampled down to 984.5 meters, the level of a prominant reflector. The sediments are mainly terrigenous and poorly fossiliferous. The deep reflector corresponds with

diabase sills interstratified with black shales near the top of the sedimentary unit.

The preliminary interpretation of these samples indicates that the Cape Verde Rise consists mainly of basinal facies whose tectonic uplift of 1000 to 1500 m was relatively recent and could have taken place in Late Palaeogene to early Neogene times, contemporaneous with the volcanic activity.

The evolution of the Cape Verde Rise can be summarized briefly as follows:-

1. From Late Jurassic to early (or early late) Cretaceous, the evolution was probably similar to the Cape Verde Basin.

2. Abundant accumulation of terrigenous material during the Late Cretaceous to early middle Miocene brought down to the basin by turbidity currents.

3. Uplift of the Cape Verde Rise contemporaneous with volcanic activity in the Canaries, Cape Verdes and near Dakar around the middle Miocene, while at the same time the CCD was reaching the bottom of the entire basin. Since then the rise has been beyond the reach of turbidity currents and has received only pelagic marls and calcareous oozes.

Site 369, 369A on the continental rise off Spanish Sahara, 488.5 meters were continuously cored off Cape Bojodor. The sediments are mainly nannofossil marls with some limestones and chalk and with a coarse terrigenous contribution. The hole bottomed in Late Aptain dark silty nannofossil marls with gypsum rosettes and was abandoned for safety reasons when increasingly low ethane/methane ratios were encountered.

The sediments reflect a predominantly continental slope environment above the CCD since the late Aptain. The two most prominent reflectors are a late Eocene unconformity and the junction between carbonate poor and carbonate rich sediments in the early Miocene.

The slope anticline appears of particular interest in the search for hydrocarbon accumulations. The most interesting reservoir rocks should be the sediments of shallow water origin found in the old and deep layers of the slope anticline.

Site 370, Deep basin off Morocco. This site penetrated 1200 m into the oceanic basin off the Moroccan continental margin. The upper 420 m was sparsely cored and the hole eventually abandoned through lack of time. The sediments sampled are predominantly hemipelagic with turbidite layers. No black shales were encountered in the Aptian - Cenomanian sediments, although at this level, the claystones are darker and have a carbon content reaching 5%.

Hiatuses have been observed in the Late Pliocene, where there is a gap of about 3 m.y., early late Eocene c. 7 m.y., early Eocene-Palaeocene c. 17 m.y., and Turonian - Late Albian c. 16 m.y. Together they represent a gap of about 43 m.y. from a record of 105 m.y. Off Morocco a hiatus of 35 m.y. separates the late Cenomanian from early Palaeocene and appears to be the result of erosion by bottom currents, and low rates of biogenous input because of dissolution at great depth and low productivity.

JOIDES CALENDAR 1975

The following meetings have been scheduled:

Executive Committee	12-13 June (Hannover)
Planning Committee	9-11 June (Hannover) 30 Sept. - 2 Oct. (L-DGO)
Ocean Crust Panel	8-10 Sept. (L-DGO) 1-3 Dec. (Washington, D.C.)
Active Margin Panel	28-29 April (DSDP) 28-30 Oct. (DSDP)
Joint Ocean Crust, Active Margin Working Group	22 May (L-DGO)
Passive Margin Panel	25-27 Sept. (L-DGO)
Ocean Palaeoenvironment	3-6 June (Zurich) 23-27 Sept. (L-DGO)
Sedimentary Petrology Panel Organic Geochemistry Inorganic Geochemistry	11-12 Sept. (Harvard)
Palaeontology & Biostratigraphy	19 Oct. (Salt Lake City)
Ad hoc down-hole measurements group	3-4 May (DSDP)

It has been decided that at least annually the Planning Committee should invite all panel chairmen to simultaneously meet with the Planning Committee. The first joint meeting will probably take place at the January meeting of the Planning Committee during 13-15 January 1976 at DSDP.

Obituary

We are sorry to announce the death of Dr. John Sherborne of the Union Oil Company of California, who died in October on his way to the Safety Panel Meeting. Dr. Sherborne had served for about 18 months on the Safety Panel and will be sadly missed.

Communications with JOIDES Office

All panel chairmen are requested to send a copy of their minutes of each meeting to the JOIDES Office. The resolution of the Passive Margin Panel who plan to also send an abstracted version of the minutes for inclusion in the JOIDES Journal is a good idea and could perhaps also be taken up by other panels.

With the copies of minutes, would you please also send a distribution list of people to whom the minutes have already been sent. In this way the JOIDES Office can distribute them further as necessary and at the same time avoid duplicate circulation.

Circulation of JOIDES Journal

It is not intended that this circulation should be limited exclusively to within the JOIDES organization. Anyone wishing to have their names added to the distribution list should please notify:-

The JOIDES Office, Lamont-Doherty Geological Observatory, Palisades, New York 10964, U.S.A.

DSDP LEG 42A SITE REPORTS

Site 371 located in the South Balearic Basin, penetrated Quaternary and Pliocene hemipelagic muds and mudstones with silts and fine sands. The drill reached acoustic basement at 545 meters subbottom where anhydrite, barren silt and coarse sand were cored. Hole terminated according to JOIDES panel instruction. Total depth 551 meters subbottom.

Site 372 at the base of the Minorca Rise. The penetration was 885 meters, with 46 cores, 431 meters taken, and 516 meters recovered. The hole terminated at the base of Lower Miocene Aquitanian when drill bit failed after objectives satisfactorily fulfilled. The section recovered consists of hemipelagic muds, plug evaporites in Messinian tuffaceous muds in Burdigalian, and turbidites in Aquitanian. These samples have established pre-Aquitanian rifting of Balearic Basin.

Hole 372A, easterly offset for heat flow measurements. Penetrated 155 meters Plio-Quaternary. Four successful measurements were made. Results very satisfactory. Preliminary analysis gave 1.6 HFU.

JOIDES/IPOD COMMITTEE AND PANEL MEMBERS
(5/75)

JOIDES EXECUTIVE COMMITTEE

TALWANI, Dr. Manik (Chairman) - Lamont-Doherty Geological Observatory
BENDER, Dr. F. - Bundesanstalt fur Geowissenschaften und Rohstoffe
(alternate = H. Closs)
BYRNE, Dr. J. V. - Oregon State University
GEYER, Dr. Richard A. - Texas A&M University
KNAUSS, Dr. John A. - University of Rhode Island
MAXWELL, Dr. Arthur E. - Woods Hole Oceanographic Institution
MONIN, Academician Andrei S. - P. P. Shirshov Institute of Oceanology, USSR
NIERENBERG, Dr. William A. - Scripps Institution of Oceanography
PETERSON, Dr. M.N.A. - Scripps Institution of Oceanography (DSDP, non-voting)
RATTRAY, Dr. Maurice - University of Washington
WOOLLARD, Dr. George P. - Hawaii Institute of Geophysics
WOOSTER, Professor Warren S. - Rosenstiel School of Marine & Atmsopheric Science

JOIDES PLANNING COMMITTEE

EWING, Mr. John (Chairman) - Lamont-Doherty Geological Observatory
BRYANT, Dr. William - Texas A&M University
CLOSS, Professor Dr. Hans - Bundesanstalt fur Geowissenschaften und Rohstoffe
CREAGER, Dr. Joe A. - University of Washington
EDGAR, Dr. N. Terence - Scripps Institution of Oceanography, (DSDP, non-voting)
HAY, Dr. William W. - Rosenstiel School of Marine & Atmospheric Science
HEIRTZLER, Dr. James R. - Woods Hole Oceanographic Institution
KENNETT, Dr. James - University of Rhode Island
KULM, Dr. Laverne D. - Oregon State University
RIEDEL, Mr. William R. - Scripps Institution of Oceanography
UDINTSEV, Dr. Gleb - P. P. Shirshov Institute of Oceanology, USSR
WOOLLARD, Dr. George P. - Hawaii Institute of Geophysics

JOIDES ADVISORY PANEL ON OCEAN CRUST

MELSON, Dr. William G. (Chairman) - Smithsonian Institution
CHRISTENSEN, Dr. Nikolas - University of Washington
DMITRIEV, Dr. Leonid - Institute of Geochemistry, USSR
HART, Dr. Stanley R. - Carnegie Institution of Washington
HEIRTZLER, Dr. James R. - Woods Hole Oceanographic Institution
MACGREGOR, Dr. Ian D. - University of California at Davis
MORGAN, Dr. W. Jason - Princeton University
SCHREYER, Dr. Werner - Ruhr Universitat Bochum
SCLATER, Dr. John C. - Massachusetts Institute of Technology
TALWANI, Dr. Manik - Lamont-Doherty Geological Observatory
UDINTSEV, Dr. Gleb - P. P. Shirshov Institute of Oceanology, USSR

JOIDES ADVISORY PANEL ON THE OCEAN MARGIN (ACTIVE)

UYEDA, Dr. Seiya (Chairman) - Lamont-Doherty Geological Observatory
BURK, Dr. Creighton A. - Mobil Oil Corporation, Princeton, N.J.
CREAGER, Dr. Joe S. - University of Washington
KOSMINSKAYA, Dr. I. P. - Institute of the Physics of the Earth, USSR
KROENKE, Dr. Loren W. - University of Hawaii
LUDWIG, Dr. William J. - Lamont-Doherty Geological Observatory
PACKHAM, Dr. Gordon - University of Sydney
PIEVE, Academician A. P. - Institute of Geology, USSR
SCHOLL, Dr. David W. - U.S. Geological Survey, Menlo Park, Ca.
VON HUENE, Dr. Roland - U.S. Geological Survey, Reston, Va.

JOIDES ADVISORY PANEL ON THE OCEAN MARGIN (PASSIVE)

CURRAY, Dr. Joseph R. (Chairman) - Scripps Institution of Oceanography
BALLY, Dr. A. W. - Shell Oil Company, Houston, Texas
BELOUSSOV, Academician V. V. - Soviet Geophysical Committee, USSR
BERNOULLI, Professor Daniel - Geologisch-Palaontologisches Institut, Basel, Switzerland
CLOSS, Professor Dr. Hans - Bundesanstalt fur Geowissenschaften und Rohstoffe
EWING, Mr. John - Lamont-Doherty Geological Observatory
MONTADERT, Dr. Lucien - Institut Francais du Petrole, Reuil Malmaison
ROBERTS, Mr. David G. - Institute of Oceanographic Sciences, Surrey, England
SEIBOLD, Dr. E. - Geolog-Palaontologie Institut, Kiel

JOIDES ADVISORY PANEL ON OCEAN PALEOENVIRONMENT

BOLLI, Professor Hans M. (Chairman) - Eidg. Technische Hochschule, Zurich
DAVIES, Dr. Thomas A. - Scripps Institution of Oceanography (DSDP)
DEBYSER, Mr. Jacques - C.N.E.X.O., Paris, France
HAY, Dr. William W. - Rosenstiel School of Marine & Atmospheric Science
KRASHENINNIKOV, Dr. Valeri A. - Geological Institute, USSR
LISITZIN, Dr. Alexander - P. P. Shirshov Institute of Oceanology, USSR
PREMOLI SILVA, Dr. Isabella - University of Milano
RIEDEL, Mr. William R. - Scripps Institution of Oceanography
SCHRADER, Dr. H-J. - Geolog.-Palaontolog. Inst. & Museum, Kiel
VAN ANDEL, Dr. Tj. H. - Oregon State University
WORSLEY, Professor Thomas R. - University of Washington

JOIDES ADVISORY PANEL ON SITE SURVEYING

WINTERER, Dr. Edward L. (Chairman) - Scripps Institution of Oceanography
BALL, Dr. Mahlon - Rosenstiel School of Marine & Atmospheric Science
BUNCE, Dr. Elizabeth - Woods Hole Oceanographic Institution
DRIVER, Dr. Edgar S. - Gulf Global Exploration Company, Pittsburgh, Pa.
EWING, Mr. John - Lamont-Doherty Geological Observatory
HINZ, Dr. Karl - Bundesanstalt fur Geowissenschaften und Rohstoffe
HUSSONG, Dr. Donald M. - Hawaii Institute of Geophysics
KOGAN, Dr. L. - Southern Branch of the Institute of Oceanology, USSR
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