ODP COUNCIL
and
JOIDES EXECUTIVE COMMITTEE MEETING
Annapolis, Maryland
29 April - 1 May 1986

AGENDA

Commencing at 09:00 a.m. 29th April

Joint session of ODP Council and JOIDES EXCOM
(Co-chairmen: D. Heinrichs and J. Knauss)

1. Call to Order and Introductions
2. Welcome Address (M.G. Gross)
3. Adopt Agenda
4. NSF Report
5. JOI Inc. Report
6. Science Operator (TAMU) Report
7. Wireline Logging Services Operator (L-DGO) Report
8. Member Country and Observer Reports
    a. FRG
    b. France
    c. Canada
    d. Japan
    e. U.K.
    f. USSAC
    g. ESF
    h. USSR

JOIDES Executive Committee Business Session (immediately follows Joint Session) (Chairman: J. Knauss)

1. Minutes of Previous Meeting - 6/7 Jan. 1986 (Hawaii)
2. Report of the JOI Performance Evaluation Committee (Information Paper)
3. FY 87 Budget and FY 87 Program Plan
4. JOIDES Office - non-U.S. staff member
5. Ship's Clearances
6. Planning Committee Report - 21/24 Jan. 1986 (La Jolla)
    a. COSOD-II arrangements

7. Participation of Third World Scientists

8. Written Reports for EXCOM Meetings

9. Future Meeting Arrangements

10. Any Other Business

Please note: It is hoped to conclude the meeting by early afternoon on 30 April to be followed by a visit to the U.S. Naval Academy and Test Facilities, Annapolis. If this proves impossible, the Executive Committee will resume on the morning of 1 May.
There will be parallel meetings of the ODP Council Executive (member country delegates only) and the JOI Board of Governors on 1 May.

*The JOI Performance Evaluation Committee report and the draft Program Plan for FY 87 will be mailed under separate cover by JOI Inc.

JOIDES EXECUTIVE COMMITTEE MEETING PACKAGE

LIST OF PAPERS

1. EXCOM Minutes, Molokai, 7-8 January 1986
2. PCOM Summary and Minutes, La Jolla, 20-24 January 1986
3. COSOD-II (Office Note)
4. Participation of Third World Scientists (Office Note)
5. Written Reports for EXCOM Meetings (Memo from EXCOM Chairman)
6. Future Meeting Arrangements (Office Note)
7. Any Other Business - JOIDES Archives (Office Note)

INFORMATION PAPERS

1. Proposals Received by the JOIDES Office
   a. Analysis (white)
   b. Proposals Listing (blue)
   c. Ideas/Suggestions Listing (pink)
   d. Relevant Workshops (green)
2. DOSECC (Deep Observation & Sampling of the Earth's Continental Crust Update No. 2 (March 1986)

JOIDES Executive Committee
7 - 8 January 1986
Molokai, Hawaii

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JOIDES Executive Committee Meeting
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Molokai, Hawaii

ACTION ITEMS

Page	Item	Responsibility
6	The inclusion into the April 1986 meeting agenda of a discussion on providing financial support by the non-US members of ODP for the non-US administrative position in the JOIDES Office.	JOIDES Office
20	Development of a summary of tasks presently carried out at the JOIDES Office which could be transferred to JOI, Inc.	JOIDES Office
20	Review of JOIDES Journal distribution policy with regard to WHOI and L-DGO Industrial Associates.	WHOI & L-DGO and SIO
20/21	Distribution of the COSOD 2 mandate to EXCOM members after it is formulated at the January 1986 meeting of the PCOM.	JOIDES Office

JOIDES Executive Committee
7-8 January 1986
Molokai, Hawaii

MINUTES

Members:

J. Knauss (Chairman) - University of Rhode Island
A. Berman - University of Miami
B. Biju-Duval - France
J. Bowman - United Kingdom
D. Caldwell - Oregon State University
H. Durbaum - Federal Republic of Germany
M. Friedman - Texas A&M University
A. Hattori - Japan
R. Heath - University of Washington
C. Helsley - University of Hawaii
M. Keen (for W. Hutchison) - Canada
A. Maxwell - University of Texas
J. Orcutt (for W. Nierenberg) - Scripps Institution of Oceanography
B. Raleigh - Lamont-Doherty Geological Observatory
D. Spencer (for J. Steele) - Woods Hole Oceanographic Institution

Liaison:

R. Anderson - Wireline Logging Services Contractor
J. Baker - Joint Oceanographic Institutions, Inc.
J. Clotworthy - Joint Oceanographic Institutions, Inc.
D. Heinrichs - National Science Foundation
R. Larson - Planning Committee Chairman
P. Rabinowitz - Science Operator

Guests:

G. Gross - National Science Foundation
B. Munsch - Eurpoean Science Foundation
J. Stel - European Science Foundation

Observers:

D. Hussong - University of Hawaii
K. Kobayashi - Japan

JOIDES Office:

D. Keith - JOIDES Office

350 CALL TO ORDER AND INTRODUCTION

J. Knauss (EXCOM Chairman) convened the 7 - 8 January 1986 meeting of the JOIDES Executive Committee which was held on Molokai, Hawaii. In the opening remarks, Knauss announced that the United Kingdom has formally joined the Ocean Drilling Program (effective 1 October 1985) and welcomed the return of Dr. J. Bowman, as a full member, to the EXCOM. Knauss also welcomed Dr. M. Friedman, the new EXCOM representative for Texas A&M University and the new Principal Investigator for the ODP (replacing W. Merrell), and Dr. A. Hattori (Ocean Research Inst.). Meeting attendees were formally welcomed to Molokai by C. Helsley (EXCOM representative - Univ. of Hawaii, Inst. of Geophysics).

At this time, Knauss noted the following temporary changes in representation:

D. Spencer substituting for John Steele - Woods Hole Oceanographic Institution.

J. Orcutt substituting for W. Nierenberg - Scripps Institution of Oceanography.

351 ADOPTION OF THE MEETING AGENDA

The agenda was amended to include a discussion on the future operations of the ODP (in a broad context), the goals of the program (in view of new drilling techniques) and the inclusion of COSOD objectives into long range planning objectives. The agenda was further amended to include a discussion on the scheduling and timing of Planning Committee and the Executive Committee meetings and a discussion on the use of JOIDES RESOLUTION as a research platform by other oceanographic disciplines. These changes were proposed by J.Baker (JOI Inc.) and M. Keen (Canada) respectively. These items were placed under the heading of ANY OTHER BUSINESS.

The membership unanimously accepted these changes.

352 MINUTES OF THE EXCOM MEETING, 25-27 SEPTEMBER 1985 (BONN-BAD GODESBURG,FRG)

D. Heinrichs (NSF) suggested the following change to the NSF Report section on page 4, paragraph 1, line 3. The sentence should now read:

"In light of this favorable evaluation, funding for the ODP has been approved for next 3 years at projected levels of support and

no additional evaluations are scheduled for the review of the science of the program."

It was moved by M. Friedman (TAMU) that these minutes be accepted as amended and seconded by B. Biju-Duval (France).

Vote: 15 for, 0 against, 0 abstain

353 NATIONAL SCIENCE FOUNDATION REPORT

G. Gross (NSF) reported that the United Kingdom has joined the ODP and its membership is retroactive to 1 October 1985. Gross further announced that a signing ceremony has been scheduled at the British Embassy on 13 January 1986 and that EXCOM would be welcome to attend.

With regard to the issue of membership by the USSR and the ESF, Gross had no news to report.

D. Heinrichs (NSF) also reported that the addition of the United Kingdom to the ODP will not directly affect the current budget for FY 86 of $32.5 M.

It was noted that the Graham-Rudman legislation has been recently passed by the US Congress and that this law will affect all sections of the U.S. federal budget. Heinrichs stated that is unclear in the short term as to what effect this will have on ODP or at the NSF and that more information will be available after March 1986. However, in the meantime, NSF has begun to study the legislation for potential problems and is investigating potential options.

In closing, Heinrichs emphasized the importance of including COSOD objectives into long range planning activities.

354 JOINT OCEANOGRAPHIC INSTITUTIONS REPORT

J. Baker reported that the Performance Evaluation Committee (PEC) has not yet completed its report. However, the Committee has met to examine the logging operations, the East Coast Repository and the ODP Databank at L-DGO in October, the shipboard operations at the St. John's, Newfoundland portcall in November, the science operations at TAMU (also in November) and the administrative operations at JOI in December. Generally the PEC indicated that they found the program to be working well and there were good interactions between the subcontractors and the JOIDES advisory groups. Baker further indicated that the report will be ready in February 1986 and presented at the EXCOM meeting in April 1986. Baker also stated that copies of the report could be made available to EXCOM before the meeting.

Discussion:

Knauss: Could you explain to whom the PEC will report?

Baker: The PEC is a contractual obligation of the JOI contract with NSF and thus reports to the President of JOI, Inc.

In closing his section of the JOI Report, Baker mentioned that at this time there were no major items to consider concerning the preliminary budget analysis for FY 87. Heinrichs added that it was agreed with NSF that JOI identify potential budgetary problems for FY 87. NSF will then review these areas with JOI and recommendations will be provided to the EXCOM and ODP Council at the April 1986 meeting. Further at that time the EXCOM may/may not require the PCOM to review the program. The process of review for FY 87 has begun and results (a refined budget and a program plan) will be released in sufficient time for the EXCOM evaluation. In closing, it was indicated that the PCOM Budget Subcommittee will not be asked to review the budget until after it is presented to the EXCOM and ODP Council at the April 1986 meeting.

J. Clotworthy reported that JOI met with NSF in October 1985 to ask for guidance in determining target figures for FY 87-88. These figures and their comparison to FY 84-86 are presented in Appendix A.

This budget (based on 5 members) was refined for operations by JOI and the subcontractors and modified to provide a contingency in FY 87 to the TAMU budget. This contingency (APPENDIX B), to be included for each year, will cover costs associated with resupply and other problems as operations are extended into the Southern Hemisphere and Indian Ocean. In addition, the change in funding between FY 86 and 87 (Appendix A) reflects an increase (10%) above the budgeted FY 86 costs.

These results were presented to the subcontractors, who examined the amount of funding at the stated level. After examination, TAMU concluded that they could deliver a program with engineering for the upcoming legs and operations at proper levels. However, two problem areas were identified in the TAMU budget: 1) Operations in the Weddell Sea will require an ice patrol vessel; the proposed budget may be $250 K short of the necessary funds; 2) engineering development to support high temperature drilling in the Red Sea may have to be increased. In the L-DGO budget, additional funding (approx. $140 K) will be necessary to purchase another Borehole Televiewer (BHTV) and Multichannel Seismic Tool (MCS). Further, JOI is trying to hold its budget to the FY 86 level of $1.42 M vs. the target of $1.56 M. This includes support for the JOIDES Office and the ODP Databank.

Further Clotworthy reported that in order to accomodate the JOI budget, JOI has proposed eliminating the non-U.S. administrative position at the JOIDES Office in FY 87. This action is

proposed as the program is beyond the start-up stage and is now fully operational.

In response to an Action Item from the September EXCOM meeting, JOI was asked to examine, in terms of funding and time, engineering activities at TAMU. JOI has completed this review and there are 4 legs (Legs 109, 110, 111, in FY 86, and 116 in FY 87) dependent on completion of engineering development tasks. Funding and time budgets appear adequate.

Corporate Overhead Absorbed By ODP

In responding to comments by EXCOM and PCOM members at earlier meetings on the role that overhead costs have played during construction of the budgets for FY 85 & 86, J. Clotworthy defined General and Administrative overhead costs, as those that have been incurred for common or joint objectives and which cannot be readily identified with a particular program requirement. These costs include salaries and expenses of corporate officers and accounting personnel and the costs of operating and maintaining corporate officers. General and Administrative overhead is charged against all direct costs (i.e. is charged as a percentage of all direct work performed). It was pointed that direct costs or program costs are those readily identified to a particular contract. At JOI, these are (in decreasing size): ODP (the largest), USSAC activities, NASA projects and NSF projects (the smallest). Further, Clotworthy presented data that indicated the amount of overhead absorbed by ODP and the components involved (APPENDIX C).

In examining the budget for FY 85-86, Clotworthy pointed out that there were a number of items that were underspent (e.g. Communications) and these reductions (savings) reduced the levy on individual contracts. The figures indicate that the actual corporate overhead costs to the ODP were less than 10% below budget in FY 85. Furthermore, the percentage of overhead costs borne by the ODP contract is steadily decreasing as other corporate marine science contract activities increase (APPENDIX C).

Discussion:

When asked if Oregon State Univ. (the next location of the JOIDES Office under the present rotation system) was consulted concerning the elimination of the non-US member of the JOIDES Office, JOI responded by stating the OSU had not been consulted and that the issue was open for debate. During discussion, it was pointed out that the non-US partners initially thought that the position would rotate among the non-US members. Also in reviewing the effectiveness of the position at the present location (Univ. of Rhode Is.), both the EXCOM and PCOM chairmen expressed their strong support for the position as T. Mayer has shown great competence in handling JOIDES Office/ODP business and has provided a

unique perspective to JOIDES affairs due to his knowledge of the European community. It was the consensus of the non-US members that the position should not be eliminated. It was agreed among the non-US members that the issue of support by the non-US members be tabled until the April EXCOM meeting. It was recommended by both the US and non-US members of EXCOM that funds be kept in the present budget for the non-US administrative position at the JOIDES Office.

EXCOM Motion: The EXCOM recommends that funds be restored to the JOI budget for FY 87 to maintain the non-US member position at the JOIDES Office.

(proposed by Durbaum, seconded by Bowman)

Vote: 15 for, 0 against, 0 abstain

After deciding to keep the position in the JOI budget, the EXCOM next discussed whether the job should be filled on a full-time or part-time basis. There was discussion on the possibility of amalgamating the position with a research post. In the meantime, T. Mayer was asked for his views about the amount of time required for the position. Also the non-US members were reminded that a nomination for the job will be needed in the near future.

355 SCIENCE OPERATOR REPORT

P. Rabinowitz reported that for FY 84/85 there was a savings of $550K, the bulk of which came from less than expected expenses during the Miami, Fla. and Norfolk, Va. portcalls. Monies were further saved as the day rate did not increase and from the drillship conversion.

TAMU has asked and received a verbal approval from JOI and NSF to appropriate these saved funds for the publication budget in FY 86. Vacancies in the publication staff will be filled at this time and Request for Quotations (RFQ) have been solicited for the publication of the ODP Part B proceedings. These RFQ's have been sent to professional societies and commercial publications (including non-US publishers).

In FY 87, TAMU anticipates no major problems and should able to meet the PCOM objectives as the publications staff will be online and there will non-conservative levels in the drilling inventory. However, it should be noted that the only half of the funds necessary for the ice patrol vessel are available and that fuel prices and day rates were based on present levels with no contingencies.

Discussion:

Durbaum: When will the development of high-temperature tools be included into the budget and how are these developments proceeding?

Rabinowitz: Funds for high temperature tools are included in the FY 87 budget. High-temp. developments are progressing at the Los Alamos Laboratories.

Preliminary Results from Leg 105 (Baffin Bay-Labrador Sea)

During Leg 105, M. Arthur (URI) and S. Srivastava (Canada) were the co-chiefs, a total of three locations were drilled: Site 645 (Baffin Bay) and Sites 646 & 647 (Labrador Sea)-APPENDIX D, Sheet 1. The objectives of the cruise were to define the tectonic development of the Baffin Bay/Labrador Sea area, to develop the history of paleocirculation through these regions and determine their connection to the Arctic and Atlantic Ocean and finally to determine the timing and nature of major paleoclimatic changes and the frequency of oscillations between glacial and interglacial cycles which prevailed in these regions.

Site 645 (Baffin Bay)-APPENDIX D, Sheet 2

At Site 645, seven holes were drilled to a total depth of greater than 1100 meters below the seafloor. The material that was recovered included glacial dropstones and other ice-rafted debris and generally was unfossiliferous. Drilling at this site has recovered a complete L. Pleistocene sequence of glacial/interglacial cycles. Furthermore sedimentation rates suggest deposition has occured at 15m/my.

Site 646 (Labrador Sea) APPENDIX D, Sheet 3

At Site 646, 2 holes were drilled to a total depth greater than 700 meters below the seafloor and penetrated seismic reflectors R3 and R4 (Miocene age).

Site 647 (Labrador Sea) APPENDIX D, Sheet 4

At Site 647, two holes were drilled to basement and penetrated reflector R2 which has been dated to be between 5.6 - 2.2 mybp.

In presenting data on the weather/oceanographic conditions (APPENDIX E) during Leg 105, Rabinowitz commented that no drilling time was lost due to sea conditions although RESOLUTION did pull-out and re-enter drill sites three times due to icebergs. It was also pointed out that this ability to work in heavy weather demonstrates a major advantage of RESOLUTION.

Leg 106 (Mid-Atlantic Ridge)

The objectives of Leg 106 were both scientific and technical. The scientific objectives were to determine the origin,nature and evolution of ocean crust of zero age at a slowly accreting plate boundary and to determine the processes of magma generation and crustal accretion. Technically, the challenge was to spud into material of near zero crustal age. The co-chiefs for Leg 106 were R. Detrick (URI) and J. Honnorez (U. of Miami).

Operations were confined to two sites (Sites 648 and 649) along an area 70 km south the Kane Fracture Zone. For Site 648, Rabinowitz presented a list of spud-in and engineering drilling systems that were required in order for the program to be a success. These systems consisted of: 1) a hard rock base structure; 2) a suspension, cementing and release system; 3) down hole coring motors; 4) development of a coring system compatible with the coring motors; 5) drilling and coring bits; 6) an external TV/sonar system; 7) a slimmed down sonar tool to be compatible with the coring motor and TV system; 8) a modified re-entry cone with a gimballed seat and 9) special cements and mud system.

The result of this operation is that Leg 106 successfully spud 34 m into bare rock (Appendix F). However, operations were hampered by units of indeterminate thickness composed of volcanic rubble, which degraded hole conditions and slowed drilling operations. It is proposed that Site 648 be deepened on Leg 109.

Site 649 was drilled along a hydrothermal vent area near the Kane Fracture Zone.

Discussion:

During discussion, the speed of drilling operations was questioned and it was asked if the speed could be increased by drilling with another technique. It was suggested by C. Helsley (Univ. of Hawaii) that JEPCO Drilling Services and/or Craddock Drilling Services be contacted since they have used very viscous drilling muds to drill holes in Hawaii, with diameters similar to the ODP holes, to depths of greater than 2000 ft. in rubbly aa-aa lava. It was also suggested that new downhole seismic techniques be developed in order to determine the thickness of the rubble zone. It was further suggested that TAMU abandon continuous coring during drilling and use very viscous drilling mud, with no circulation, after which the hole (in particular the rubble zones) could be logged to determine downhole lithology.

Ship Schedule

Leg 107

Written permission to operate was not received from Italy at the time RESOLUTION departed Malaga, Spain. However, the US Dept. of State has indicated that a verbal agreement does exist with Italy. Another potential problem is that 12 cases containing sen-

sors for the cryogenic magnetometer and spares for the XRF and the top drive system never reached the ship during the Malaga portcall. In hopes of having the equipment to do magneto-stratigraphy, the order of drilling has been reversed so to keep the ship within 100 miles of the Italian coast. With this strategy, once the cases are located they can be quickly ferried to RESOLUTION without the loss of a cruise objective.

Legs 108, 109 and 110

Staffing has ben completed for the above legs.

Leg 112 (Peru Margin)

R. von Huene and E. Suess have been selected as Co-chiefs.

Leg 113 (Weddell Sea)

An ice patrol vessel is needed and TAMU is presently investigating whether any drilling permits are required.

Discussion:

The main topic of discussion was the problem of clearances. It was pointed out the ship has sailed three times with clearances coming at the very last second before the cruise. It was suggested during discussion that perhaps the matter of obtaining clearances should be handled on more than a part-time basis. Several EXCOM members were, however, skeptical if a full-time position would be an easier solution. The feeling by this group was that possibly too much attention paid to the issue would create even more problems. It was suggested, on the other hand, that perhaps more time is necessary in asking for permission. In response, TAMU indicated that in previous cases enough lead time was given. However, in each case permission was granted at the last minute. In closing discussion, several EXCOM members suggested that formal and informal contacts for clearances be discussed at the April EXCOM meeting.

Workshops

Riser Drilling

TAMU plans to conduct an in-house workshop on riser drilling technology. This will be followed by a larger workshop which will include the JOIDES community and which will be held in conjunction with the TEDCOM.

Co-chiefs

TAMU plans to conduct an in-house workshop with past co-chief scientists in order to receive input for improving operations. The results will be made available to the EXCOM.

Discussion:

Discussion of general ship operations revealed that the underway geophysical equipment is very much underutilized and in most cases not used until the ship comes onsite. It was suggested that the reason the problem exists is that with the increased cruising speed of the ship, the records become impossible to collect. A solution would be to slow the ship but this would occur at the expense of drilling time. It was also noted that the Univ. of Utrecht has successfully used a profiling system on Royal Dutch Shell ships which reach up to 18 knts cruising speed and perhaps advice could obtained from them.

Given the stability of the drillship and the potential for the collection of high quality gravity data, it was suggested that the US Navy be contacted to provide funds to collect such data from the more remote basins in the ocean (e.g. the Southwest Indian Ridge area).

It was also noted that the program has successfully operated for one year. EXCOM approved a motion recognizing the efforts of all involved.

EXCOM Motion: As the JOIDES RESOLUTION completes its first year of deep-ocean drilling, the JOIDES Executive Committee congratulates and commends the leaders, scientists and support staffs of the Ocean Drilling Program at Texas A&M University and at Lamont-Doherty Geological Observatory for their outstanding management and operation of the new program. The accomplishments of the first year have met and exceeded our highest expectations. Well done.

(proposed by Knauss, seconded by Heath)

Vote: 13 for, 0 against, 2 abstain

356 WIRELINE LOGGING SERVICES CONTRACTOR REPORT

R. Anderson reported that on Leg 105, the seismic stratigraphy has been completed for all the logged holes and that results from the Gamma Ray Spectrometry Tool (GST) log indicated a possible Milankovich cyclicity that may make it useful for paleoenvironmental applications.

With regard to COSOD objectives on bad hole conditions and high temperature tool development, work at L-DGO has produced a variety of tools that could be run through the drillpipe. However, the use of these tools has resulted in operational problems with the tools themselves and the drillpipe. On Legs 108 and 109, a sidewall entry sub will be used to allow tools on the end of the drillpipe to be retracted into the pipe during operations if a bridge is encountered and remain in that position until hole conditions improve. After consulting with TAMU and

SEDCO engineers, it was concluded that the system must be modified to fit within the drillstring.

Other Developments

The first field test of the Cryogenic Gamma Spectrometry Tool is currently planned for Leg 111. This instrument has increased accuracy over the present GST and gives the wt.% of Ni, Mn, Cr, Mg, Na and Ti.

On Leg 109 advanced clay typing, the next generation of oil field logging tools, will be used to determine wt.% of Al.

Quantitative evaluation of the Wireline Heave Compensator will be conducted on Leg 110 in order to determine its response characteristics.

On Leg 109, the German and French heat flow/conductivity magnetic gradiometer will be used.

L-DGO seeks advice from the geochemical community for logging projects that can be developed within the program and which will benefit marine geochemistry.

High Temperature Tool Development

A major impetus for high temperature tool development has come from the Salton Sea Scientific drilling project (SSSP). Schlumberger/SSSP has conducted tests at the Salton Sea by cooling the tool below its failure point while emplacing it in very hot hole conditions. At this time, however, no other ODP-sponsored development is occurring. L-DGO hopes to borrow other downhole high temp. tools from the USSAC program, US Geological Survey and Lawrence Berkeley Laboratory.

Wireline Packer Development

A proposal has been sent to AMOCO for use of their packer. The proposal consists of a 3 yr. project using their prototype on Leg 112. The prototype must be modified and miniaturized and AMOCO has been asked to develop a set of connections to attach to the bottom of the drillstring. The development of this wet patch connection will allow for the use of other larger diameter tools.

Time in the Borehole

In order to educate the JOIDES community to the potential of logging and thereby increase the amount of time in the borehole through its increased use, L-DGO has scheduled a logging school for the PCOM and panel chairmen at their meeting on 20-25 January 1986. Further, the second version of the logging manual will be published in REVIEWS OF GEOPHYSICS. Under this format, topics and tools available for scientific solutions will be

presented. In closing this section, Anderson proposed that a logging school be held at each member country.

Discussion:

Bowman (UK): What costs are associated with setting up a school in Europe?

Anderson: The bill would include travel costs and expenses associated for three people for one week.

Budget

The present budget has a shortfall of $140 K and supplemental monies are needed in order to purchase an additional BHTV and MCS system. Presently the ODP has only one of each and statistics from Schlumberger indicate that the effectiveness of the tools downhole increases from 68 to 91% when 2 tools are available.

357 MEMBER COUNTRY AND GUEST REPORTS

Federal Republic of Germany

H. Durbaum reported that the FRG welcomes the UK as a member of the ODP.

The FRG is presently working in the Weddell Sea conducting site surveys using POLARSTERN. However, the austral summer of 1986 has had bad weather and POLARSTERN has encountered many difficulties in conducting seismic surveys in the area (i.e. only 400 km of seismic lines have collected to date). The FRG is also improving the 3-D magnetometer with a field test scheduled for Leg 109, if the PCOM agrees. Work also continues on a high resolution temperature log.

Proposals for drilling in the So. China Sea to determine if it is the site of a paleo-subduction zone have been submitted to the JOIDES Office. Finally, the geological community of the FRG will hold a colloquium on 13-14 March 1986 at the BGR in Hannover.

France

B. Biju-Duval reported that France wishes to express its welcome to the UK on becoming a member of the ODP.

Biju-Duval also reported that in spite of budget cuts in oceanography at IFREMER, the ODP budget has been maintained at present levels for FY 86. This results in FFr 5.6 - 6.5 M available for ODP activities.

France is presently considering a multi-channel seismic (MCS) cruise in 1986 to the Red Sea and in 1987 to the southwest Pacific. However, reductions in the submersible program will curtail some of the diving operations planned in 1986. Also, the Red Sea diving cruise, planned in cooperation with the FRG, is presently delayed because of problems in obtaining clearances.

Canada

M. Keen reported that Canada wishes to join the rest of the JOIDES community in welcoming the UK to the ODP.

In Canada, the ODP is receiving substantial amounts of publicity as displays were held at the Canadian Offshore Resources Exposition in Halifax on 1-3 October 1985 and at the Annual Meeting of the Underwater Mining Institute in Halifax on 22-23 October 1985. Further a very successful portcall was conducted at St. John's, Newfoundland at the end of Leg 105.

A Canadian National Committee for ODP has been established with P. Robinson as Chairman. W. Hutchison has been named Chairman of the Canadian ODP Council and will act as Canada's representative to the ODP Council. M. Keen will represent Canada at EXCOM meetings and P. Robinson will do the same at PCOM meetings. A secretariat has been established for a period of two years at Dalhousie University. Canadians have been present at all panel meetings since September 1985 and will participate on all legs with the exception of Leg 107.

In closing, Canada has been active in the Indian Ocean with F. Gradstein developing programs and in the northeastern Pacific through the efforts of Hyndman and Davis of the Pacific Geoscience Centre.

Japan

K. Kobayashi reported that Japan wishes to welcome the UK to the ODP. Since September, two panel meetings have been held in Tokyo and these have given panel members an opportunity to meet with members of the Japanese geoscience community. In addition, a domestic ODP symposium will be held on 11-12 March 1986 in order to discuss ODP results.

Japan has built a high temperature (3-axis) cryogenic magnetometer for use in the East Pacific Rise program.

Japan has also developed the following schedule for site surveys in 1985/86:

Vessel	Dates	Area
Tansei Maru	14 Sept-26 Sept 1985	Japan Sea

Hakuho Maru	21 April-15 May 1986	Japan Sea/
Tansei Maru	27 June- 21 July	Izu-Bonin Tr.-arc-backarc
Tansei Maru	24 July-30 July	Nankai Trough
Hakuho Maru	22 Nov.-15 Dec	Nankai Trough

United States

J. Orcutt reported that USSAC has sponsored a number of workshops during 1985 and will continue to do so in 1986 (see APPENDIX F). In the near future, USSAC will issue Requests for Proposals (RFP) for data syntheses of the East Pacific Rise and the Indian Ocean.

During 1986, 3 projects will be jointly funded with the Marine Geology and Geophysics section of NSF. These are in the Arabian Sea, as part of the Neogene package, the Deformation Zone area in the Indian Ocean and DSDP Hole 504B in the east Pacific. Monies are also committed for funding site survey cruises to the Broken Ridge area on R/V CONRAD and in the So. Atlantic on R/V POLARDUKE.

United Kingdom

J. Bowman thanked all of those who helped get the UK into the ODP and expressed the enthusiasm of the UK geoscience community especially for Leg 109 activities. The funding to participate in the program was provided by a sizable contribution from the private sector (which consists of 6 UK oil companies) and from 4 government departments. However, in spite of the involvement of the many contributors, the Natural Environment Research Council (NERC) will act as the main clearinghouse for handling funds. The UK coordinating committee will be chaired by M. Audley-Charles and T.J.G. Francis will act as the PCOM representative. The coordinating committee will meet in February 1986 to fill JOIDES panel vacancies.

Cruises conducted in Weddell Sea during last year have resulted in the collection of a substantial amount of multichannel seismic data. This information has been relayed to the JOIDES Office. NERC has conducted GLORIA surveys of portions of the US Exclusive Economic Zone (EEZ) during 1985 and has since joined with Marconi Underwater Systems for the commercial development of the GLORIA instrument. This situation has opened the way for the creation of a R & D program to develop the next phase of this instrument. Bowman reported that DARWIN is scheduled to operate in the Indian Ocean during 1986.

European Science Foundation

J. Stel thanked the EXCOM for its invitation to the meeting and reported that the ESF Consortium met in Zurich after the September EXCOM meeting. At this meeting, the Scandinavian countries as a group indicated that they had made a joint request at ministerial levels to increase their initial contribution to up to 40-50% of a full subscription and the other ESF countries are expected to also increase their contribution. From this show of enthusiasm, it is hoped that 70-75% of a full ticket will be available in the near future. B. Munsch reported that the ESF has invited Australia to join the ESF Consortium on the basis of a $300-500 K or 20% contribution and it is anticipated that a full membership will be obtained by May 1986. The ESF has established a March deadline for a final decision on ODP. Hopefully, there will be a positive decision at the 7 March 1986 ESF meeting in the Netherlands.

Stel also thanked the EXCOM for the series of DSDP Bluebooks and stated that the ESF is pushing for TV exposure for ODP in ESF Countries.

USSR

There was no formal report on the membership status of the USSR. However, several EXCOM members reported that informal contacts suggest a positive stance.

358 PLANNING COMMITTEE REPORT

R. Larson reported on the 8-10 October 1985 meeting of the JOIDES Planning Committee.

JOIDES Office Activities

The JOIDES Office has produced Vol. XI, Special Issue No.4 of the JOIDES Journal which is entitled Guide to the Ocean Drilling Program. Copies have been distributed to both US and non-US members and institutions. However, a mistake during the binding process has resulted in about 50% of the volumes being mispaginated. A rerun of approximately 1500 copies has been done at no additional costs and a bulk shipment has been made to the non-US member countries. In addition, if there are requests for individual or bulkmailings from the US, these should be directed to the JOIDES Office.

JOIDES PCOM Membership

The following changes were made at the October meeting:

T. Shipley replaced R. Buffler (Univ. of Texas), who has moved to the ODP Office at NSF.

P. Robinson has replaced J. Malpas as the Canadian representative

S. Levi temporarily represented Oregon State Univ. and replaced H. Schrader, who has moved to Marine Geology and Geophysics at NSF. N. Pisias has subsequently been named the PCOM representative from OSU.

JOIDES Panel Membership

The following changes occurred among the JOIDES Panel Chairmen:

B. Taylor was named Chairman of WPAC

D. Rea was named Chairman of CEPAC

R. Schlich was named Chairman of IOP

J. Austin was named Chairman of ARP

Larson also noted that since the October PCOM meeting, M. Purdy has resigned as Chairman of LITHP and M. Arthur has resigned as SOHP Chairman.

Logging

At the meeting, the Planning Committee reiterated its requirement that a standard logging package be run within a reasonable time period in each hole deeper than 400 m. A standard logging package was defined as a suite of sonic, electrical resistivity and active nuclear tools.

In an effort to educate the members of PCOM and the Panel Chairmen on the capabilities and potential of the logging suite, an evening seminar is planned at the January 1986 PCOM meeting.

SEDCO Limits for Days At Sea

The Planning Committee recognized the concern expressed by SEDCO in balancing the length of the odd and even numbered legs over a 1-2 year period and will include this consideration in its planning of future legs. However, the PCOM indicated that it must be recognized that because the planning of lengths of legs is guided primarily by their scientific objectives, this consideration may not always be possible.

Panel Staffing

Larson alerted the EXCOM to fact that the present panel structure may be changed at the January 1986 meeting and requested

that EXCOM give guidance to the boundaries of the potential changes. The reason for the potential restructuring relates to whether the panels are presently effective in planning future activities due to an apparent duplication of effort by the regional and thematic panels and the general acceptance into the schedule of regional panel drilling recommendations at the expense of thematic panel drilling recommendations. It was also pointed out that the changes would be applied only to the regional and thematic panels and not to the service panels.

Three possible options exist:

1) no change to the present structure.
2) change to only thematic panels and have working groups report to them.
3) change to only regional panels and have thematic working groups report to them.

Discussion:

EXCOM Consensus: The present panel structure was emplaced to provide a check and balance system which was deemed necessary for planning. At this time (Jan. 1986), the Program needs stability and not change. PCOM is asked to accept the status quo. If more than minor changes are proposed, they should be brought to the EXCOM for discussion prior to implementation.

Publications

The PCOM reiterated its original publications policy of publishing a Part A and Part B: Proceedings of the ODP. The PCOM Publications Subcommittee has investigated inhouse publication for Part B and has indicated that the $2 M estimated for publishing Part B at TAMU to be comparable to that of other large science operations (e.g. USGS). TAMU has sent RFQs to commercial publishers (e.g. Elseiver, Springer-Verlag) for bids on producing Part B.

Discussion:

EXCOM Consensus: The EXCOM agrees with the PCOM policy of publishing Parts A & B of the Proceedings of the ODP. It is also recommended that any contract with a commercial publisher would include benefits to the ODP if costs are reduced by innovations/improvements in publishing.

Present Planning:

Leg 107

Leg 107 is presently underway with 4 objectives: 1) to establish a Plio-Pleistocene section at DSDP Site 132; 2) to determine the post-and syn-rift history of the E. Sardinian

margin; 3) to drill the Vavilov Basin and 4) to determine the age and nature of basement in the Marsili Basin. The present order of drilling has been reversed in order to accomodate the late shipment of cargo from Malaga.

Leg 108

Leg 108 results will concentrate on the shallow and deep circulation history of the NW African margin and the history of paleowind system in the region. The present plan is to drill 12 shallow sites (less than 400 m), with no logging and with double HPC coring and 1 XCB to total depth.

Leg 109

Planning is open for Leg 109; however, it is likely that it will be committed to deepening the hole started on Leg 106. The default option is to drill the hydrothermal area near the Kane Fracture Zone (KFZ) or to the transform valley of the KFZ.

Leg 110

After consulting TECP and ARP, the PCOM determined the objectives of Leg 110 to be drill through the decollement zone to collect hydrogeologic data above and below the disturbed zone. The default is to conduct a similar study using a series of single bit holes to drill the material above the decollement from the toe area to the upper sections and to drill a reference site (100 km) seaward of the wedge.

Leg 111

Planning is open at this time and decisions will be made at the January PCOM.

Leg 112

Planning has not yet been discussed although site surveys have been completed.

Leg 113

The PCOM reiterated its view of a 1 January 1987 start date.

Leg 114

The PCOM needs an assurance from NSF that funds will be available for site surveys.

Indian Ocean:

Red Sea

The Red Sea Working Group is devising thematic objectives. It should be noted that clearances may be a potential problem in this area.

Neogene Package

Plans call for a series of double HPC and XCB sites off the Oman and Somali margins. The area needs site surveys that will be done on CONRAD in mid-1986.

Kerguelen

The program will consist of two legs with resupply ocurring at Reunion Is. between the legs.

Eastern Indian Ocean

Site survey problems exist for the Broken Ridge, 90°East Ridge and the Intraplate Deformation areas.

Miscellaneous

Sites in the SW Indian Ridge (SWIR) and the Mascarene basin have been added to the proposed program.

Pacific:

Since WPAC is the only group that has considered a drilling program, planning has been delayed until other appropriate panels have considered possible drilling options.

359 ROTATION OF PLANNING COMMITTEE MEMBERSHIP

In a paper written at the JOIDES Office (APPENDIX H), it was noted that as of 1 January 1986 ten of the fifteen PCOM members will have less than 2 years experience and the incoming PCOM Chairman will have been with the PCOM for only 11 months before taking over the helm. This situation results in a very rapid rate loss of corporate memory.

EXCOM Consensus: EXCOM approved the extension by one year past their planned rotation of J. Honnorez (Univ. of Miami) and/or D. Hayes (L-DGO) in order to provide continuity due to the relative inexperience of the present PCOM members. It was suggested that future incoming PCOM chairman should serve on PCOM for 1-2 years before becoming chairman.

360 ROTATION OF THE JOIDES OFFICE

The EXCOM considered a position paper written by T. Mayer on the pros and cons and suggestions for present rotation scheme of

the JOIDES Office (APPENDIX I). Also the problem of locating the JOIDES Office after OSU was discussed. Under the present plan, the Univ. of Hawaii would be next in line to host the office. However, because of the distance/time problem (from the mainland US) there has been a suggestion that Hawaii be skipped. It was the consensus of the EXCOM that the current rotation plan be maintained. However it was suggested that some tasks presently carried out at the JOIDES Office could be centralized at JOI and the EXCOM Chairman was asked to determine which tasks could be transferred to JOI. This consensus was expressed in the following motion:

EXCOM Motion: EXCOM recommends continuation of the present system of a two-year rotation with the PCOM Chairman and Secretariat being co-located and that Hawaii be the next location of the JOIDES Office after Oregon State University.

(proposed by Maxwell, seconded by Raleigh)

Vote: 15 for, 0 against, 0 abstain

361 JOIDES JOURNAL DISTRIBUTION

After reviewing a position paper prepared by T. Mayer on the current distribution of the JOIDES Journal (APPENDIX J), the EXCOM recommended that WHOI, SIO and L-DGO review their practice of distributing issues to their industrial associates.

The issue of distribution to the UK and ESF was not discussed since the UK is now an ODP member and membership for the ESF looks favorable in the near future.

362 ANY OTHER BUSINESS

COSOD-2; Long Range Planning of the Ocean Drilling Program

Since the program has completed its first year of drilling, it was unanimously agreed by the EXCOM that now is the time to begin planning and designing a schedule for COSOD-2.

EXCOM Consensus: It was the consensus of the EXCOM that the COSOD-2 meeting should be held in early 1987. It was further suggested that the PCOM begin a dialog and draft terms of reference for COSOD-2 at its January 1986 meeting. The results will be presented at the April EXCOM and the PCOM May 1986 meetings. In addition, after the mandate is formulated in January, it will be distributed by the JOIDES Office to EXCOM for comment. If there are no significant objections from the EXCOM then the PCOM is free to continue with planning. If problems exist, planning will be postponed until the May PCOM meeting. It was also suggested that holding COSOD-2 in Europe would raise the

visibility of the program among the Europeans (in particular, the government agencies and the various geological communities).

Timing of EXCOM and PCOM Meetings

Presently the EXCOM is meeting just before the PCOM and this situation is out of phase with the original meeting plan and hampers the EXCOM in its efforts to provide guidance to the PCOM.

During discussion, R. Larson (PCOM liaison) indicated that the drilling program presently constrains the PCOM meeting schedule and this was supported by several of the EXCOM membership. It was also noted that EXCOM is now meeting three times/yr. (and tries to schedule its meetings about four months apart) while PCOM meets three times a year with occasional additional meetings. Some EXCOM members asked if there was a real need to meet 3 weeks before the PCOM. Finally, it was noted that the only firm EXCOM meeting date is that which coincides with the ODP Council. The general consensus was that although it would be useful to have EXCOM meet a few weeks before PCOM, it was not of such overiding importance that the EXCOM insist on developing its schedule around this goal.

Use of JOIDES RESOLUTION As A Research Platform for Other Oceanographic Disciplines

D. Heinrichs reported that a meeting was held in Woods Hole, Mass. in September 1985 concerning using RESOLUTION as a floating oceanographic platform. Meeting conveners were P. Weibe (WHOI) and C. Miller (OSU) and R. Larson attended from JOIDES. Larson reported that the idea behind the meeting was a good idea in theory but the experimental time frames of potential users (biological, chemical and physical oceanographers) do not match with those of the ship schedule. It appears the interest is on time scales on the order of months, years, decades while the drillship operates in terms of days, weeks or months. After this information, interest in the drillship by the potential users quickly waned and they considered other means of emplacing instruments for long periods of time. It was suggested by D. Spencer (WHOI) that there are a limited number of experiments (e.g. sediment trap studies) for which the ship would be an ideal platform. It was also suggested that, with the advent of riser drilling where the ship will be at a location for several months, the interest in using the drillship as an oceanographic platform will increase.

It was further suggested and agreed that if a new idea were presented to the PCOM, then under present policy, it could be included on a program.

ODP Brochure

NSF and JOI have suggested that the present brochure should be updated. A draft outline has been prepared at JOI that emphasizes the present aspects and the future of the ODP. Presently, the project is being funded by US monies but the format is flexible enough to be used as a base for other countries.

EOS Column

J. Orcutt proposed, and discussed with the JOIDES Office, the development of an informational column to be placed in EOS to update the public on current and future activities. This column will not compete with the JOIDES Journal and will not report cruise results.It was also suggested that perhaps information could be sent to agencies in the non-US countries for inclusion in their journals and newsletters.

Third World Participation

J. Knauss reported that he sent letters to the IOC and to the Secretary of SCOR. SCOR informed him that the issue is on the agenda at its next annual meeting. Nothing has yet been received from the IOC.

TAMU also has investigated the possibility of establishing Junior Scientist positions for Third World scientists and the costs per person ranged from $22-62 K, depending on the length of stay. Additional details are found in a report to the EXCOM Chairman. The EXCOM Chairman further urged the non-US members to investigate funding possibilities in their respective countries.

363 FUTURE MEETING ARRANGEMENTS

29-30 April 1986 in Annapolis, Maryland

15-16 October 1986 on Vancouver Is., Canada

The EXCOM thanked C. Helsley for hosting the meeting and making arrangments for the luau and the field trips.

APPENDIX A

ODP FUNDING FROM NSF

	ACTUAL			TARGET	
	FY '84	FY '85	FY '86	FY '87	FY '88
JOI	2.49		1.42	1.56	1.70
L-DGO	1.38	1.75	2.50	2.75	3.10
TAMU	19.10	26.68	28.58	31.69	34.70
	22.05	29.35	32.50	36.00	39.50

FY '86, '87, '88 based on 5 member countries

TARGETS FY 1987

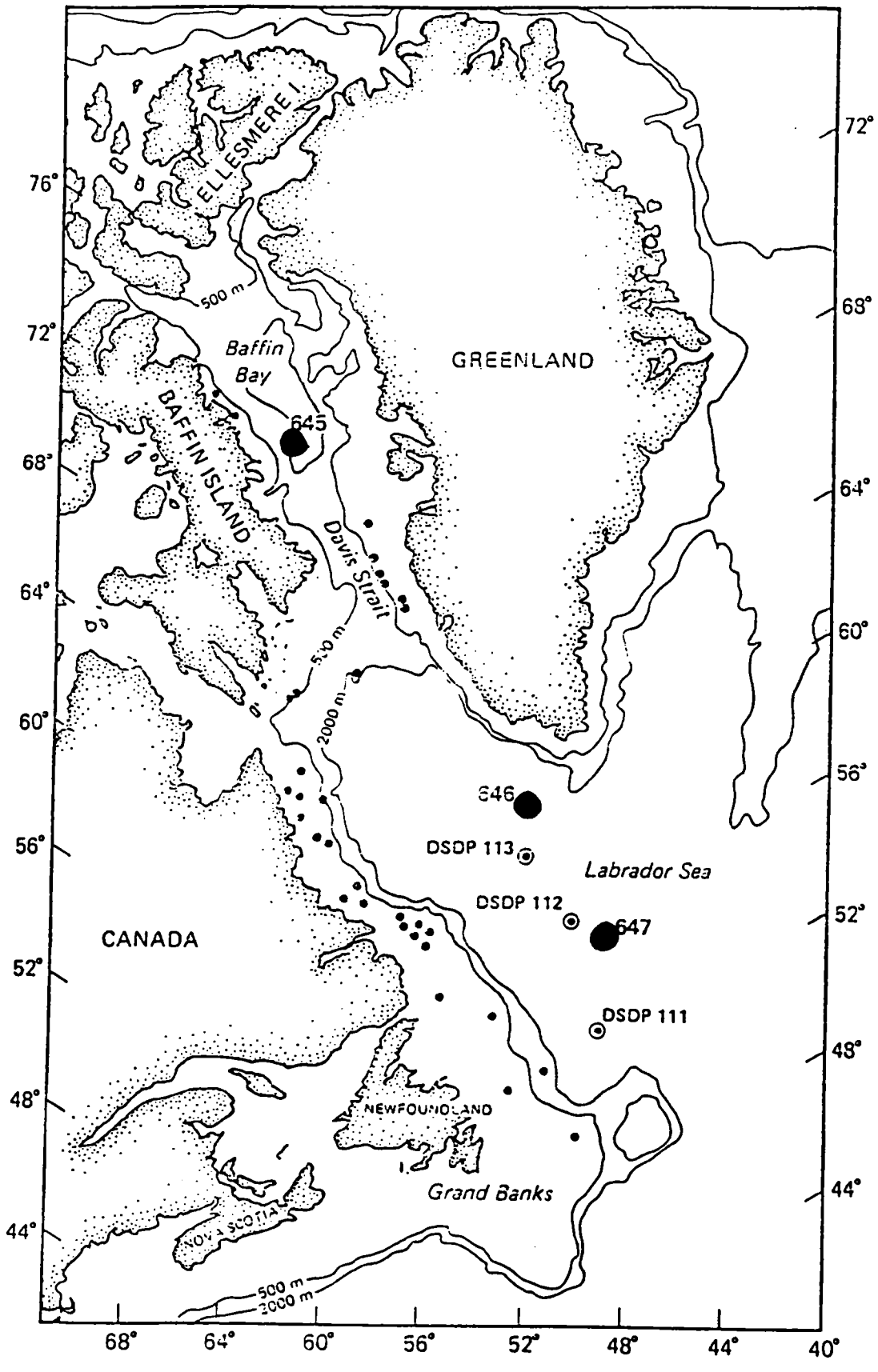
JOI	1.56
L-DGO	2.75
TAMU	31.44
Contingency	0.25
	36.00

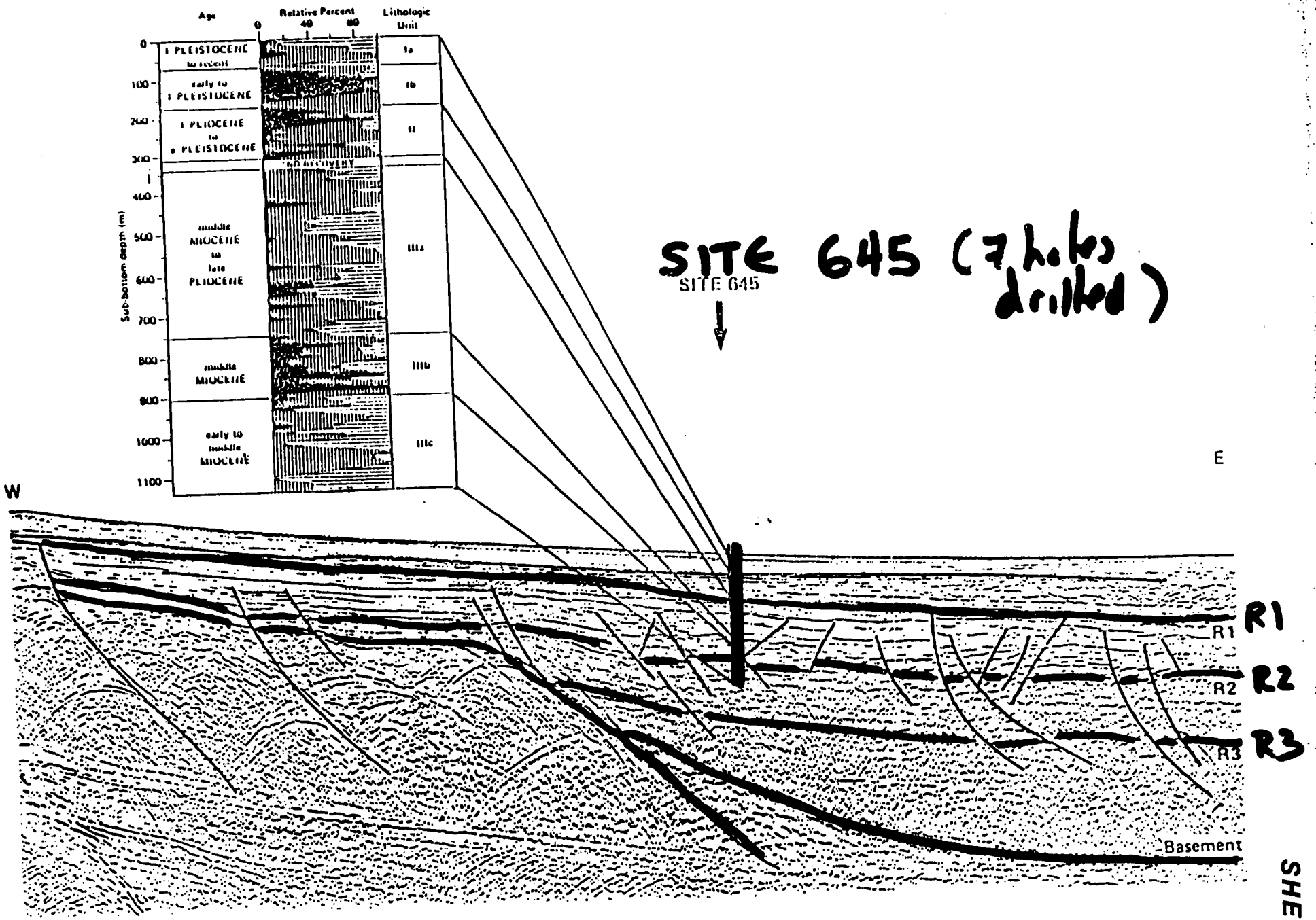
CORPORATE OVERHEAD ABSORBED BY ODP

	'85 Budget	'85 Actual	'86 Budget
Total allowable costs	$ 646 K	$586 K	$ 661 K
Distribution to ODP	92%	91%	85%
Cost to ODP	593	533	562
Cost per non-U.S. member	50	45	43

COMPONENTS OF CORPORATE OVERHEAD

	'85 Budget	'85 Actual	'86 Budget
Direct Labor - salaries, taxes, benefits	$354K	$324 K	$369K
Communications	43	28	40
Reproduction	11	10	11
Office Rent Supplies Travel-staff Travel-Board Equip. Rent./Maint. Insurance Training Other	177	172	174
Outside Professional Services	53	46	59
Depreciation	8	6	8
Total Allowable Costs	$ 646K	586K	661 K


ELLESMERE I.
GREENLAND
Baffin Bay
BAFFIN ISLAND
645
646
647
DSDP 113
DSDP 112
DSDP 111
Labrador Sea
Davis Strait
CANADA
NEWFOUNDLAND
Grand Banks
NOVA SCOTIA
500 m
2000 m
76°
72°
68°
64°
60°
56°
52°
48°
44°
40°

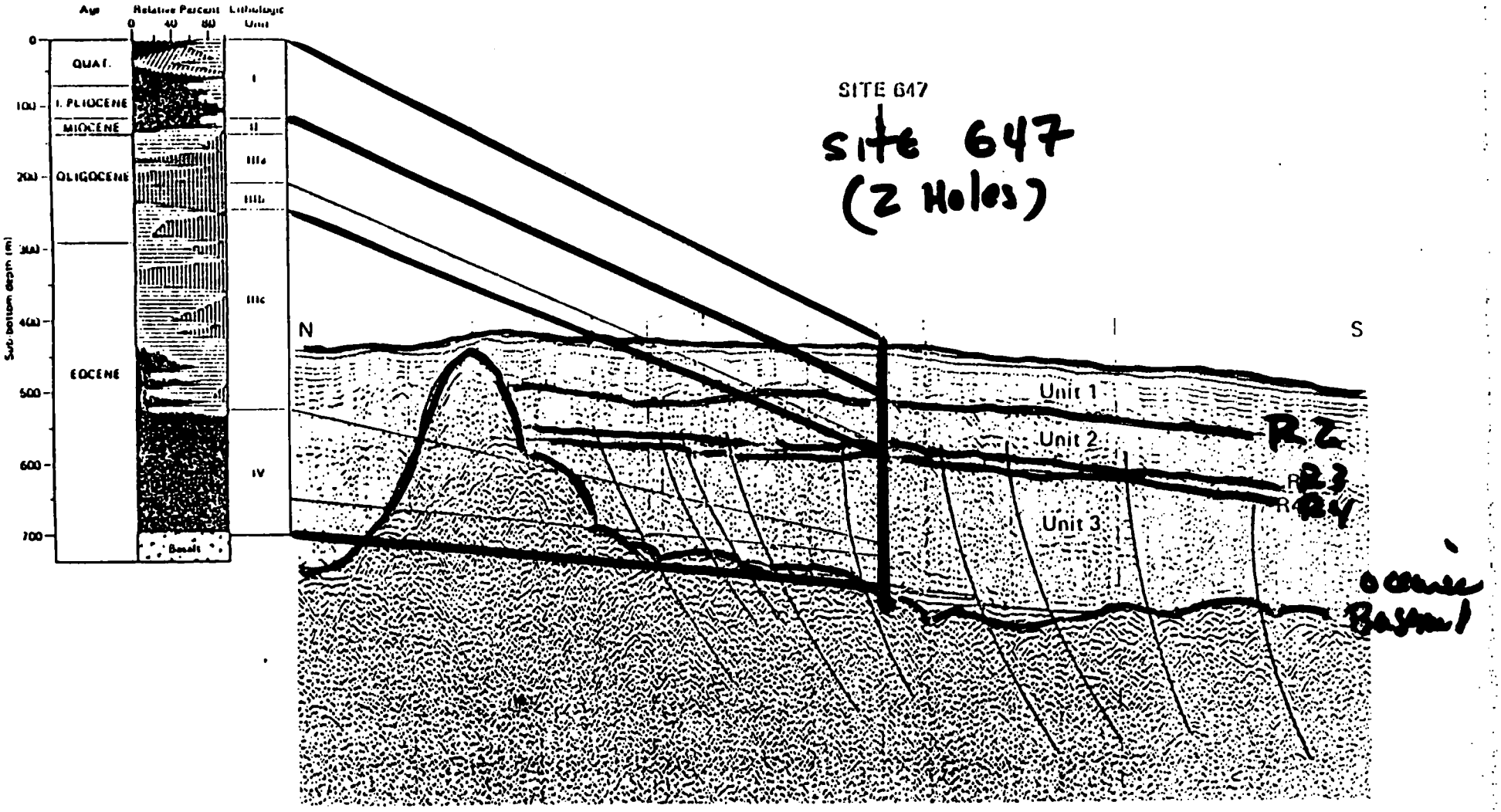


SITE 645 (7 holes drilled)

SHEET 2

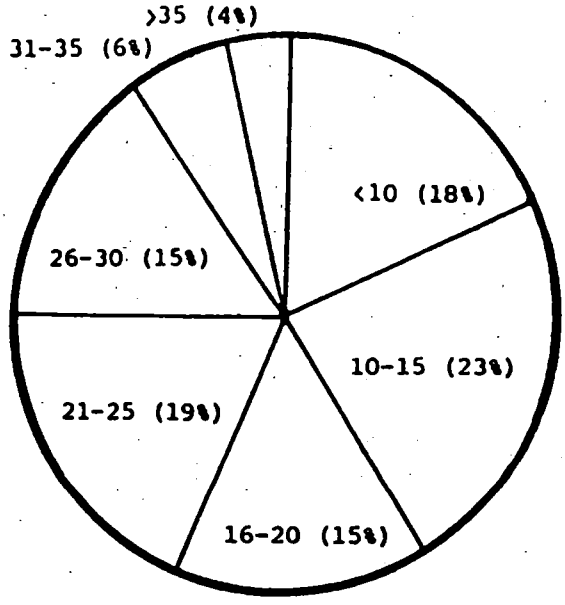
Site 646 (2 holes drilled)

SHEET 3

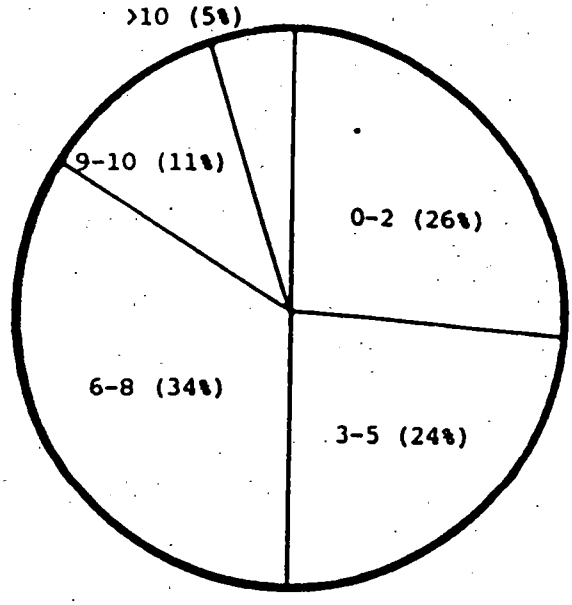

Age
Relative Percent
0
40
80
Lithologic Unit
QUAT.
I. PLIOCENE
MIOCENE
OLIGOCENE
EOCENE
Basalt
I
II
IIIa
IIIb
IIIc
IV
Sub-bottom depth (m)
0
100
200
300
400
500
600
700
SITE 647
site 647
(2 Holes)
N
S
Unit 1
Unit 2
Unit 3
R2
R3
R4

SHEET 4

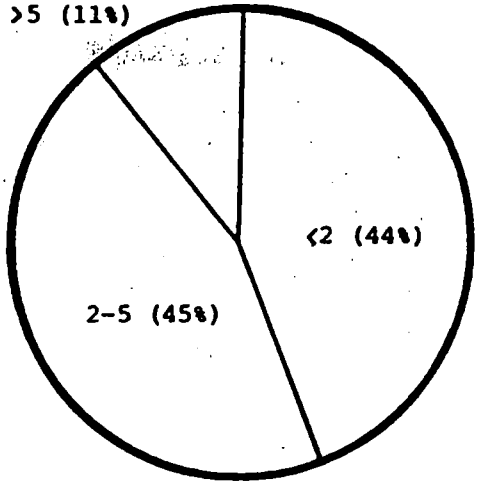
LEG 105



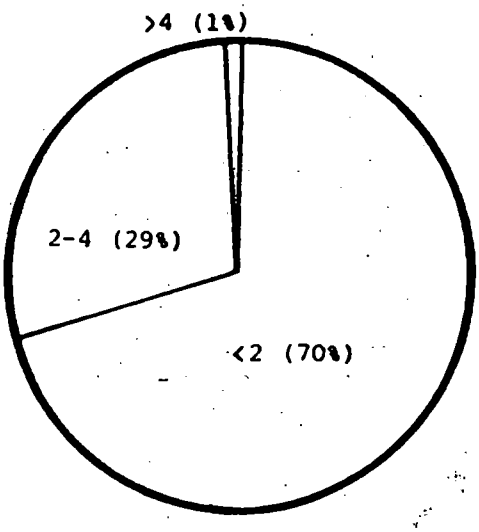
WIND SPEED (KTS)



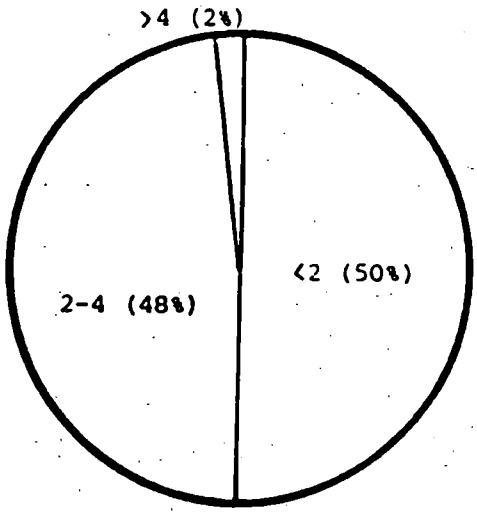
WAVE HEIGHT (FT)



HEAVE (FT)



PITCH (°)



ROLL (°)

Drilling in Carbonate Banks & Guyots
Winterer, August 1985

Drilling in west Pacific Arc - Backarc
Systems Hawkins, June 1985

Drilling Programs for the study of Cretaceous
Black Shales Arthur, December 198

Scientific Seamount Drilling
Watts, 1986

Geologic Evolution of the north Pacific
Scholl, Sept. 1985

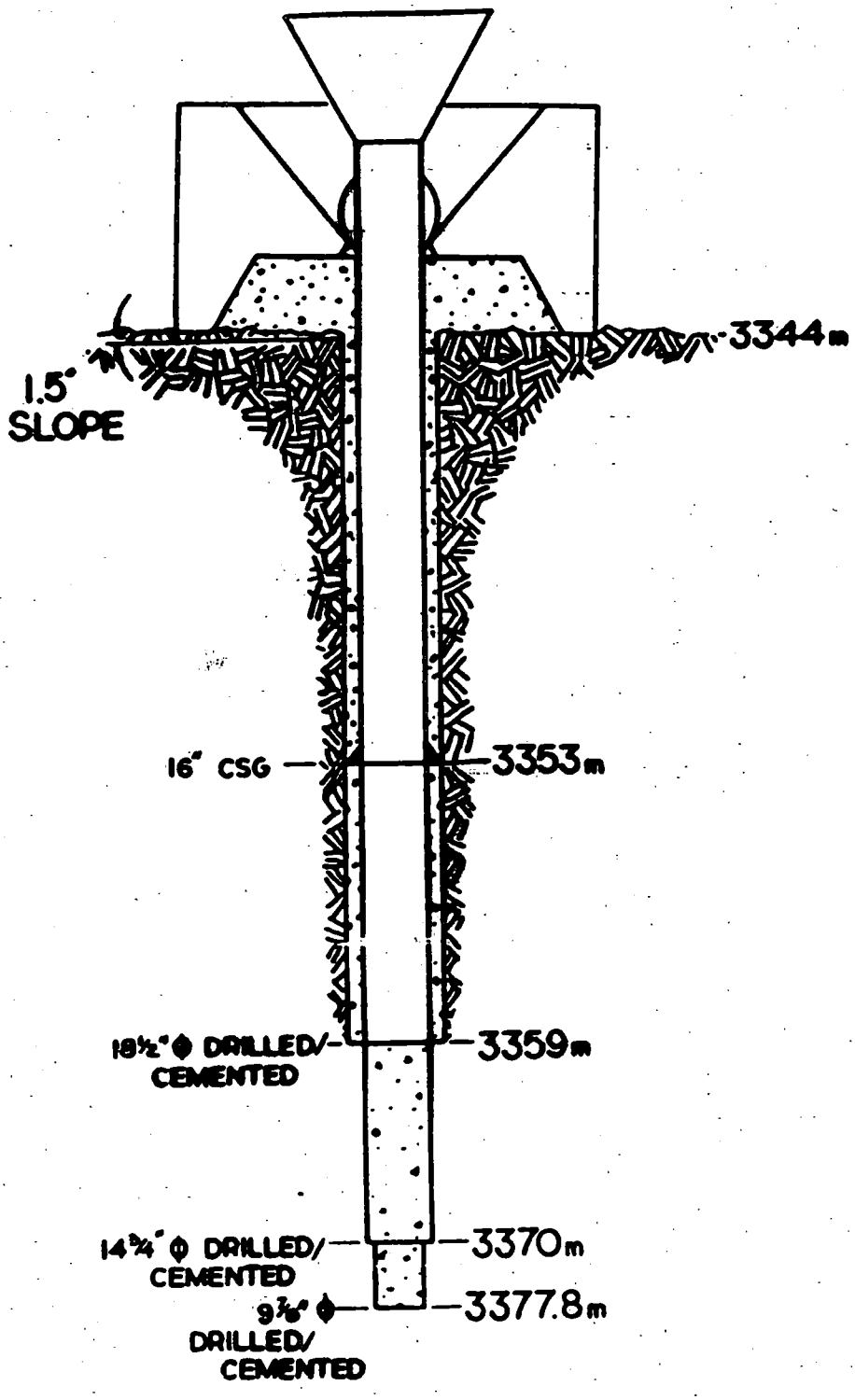
Paleomagnetic Objectives of the ODP
Verosub, 1986

Physical and mechanical Properties measurements
of ODP Samples Karig, 1986

Gulf of California Drilling Activities Committee
(GULFAC) Final Review

South Pacific Drilling
Ciesielski, April 1986

HARD ROCK DRILLING PROGRESS
AS OF 11 DEC 85



APPENDIX I

ROTATION OF THE JOIDES OFFICE

1. In 1975, the Executive Committee agreed to the creation of the JOIDES Office in support of the Executive and Planning Committee chairmen. At that time it was agreed that the chairmanship of these Committees, together with the JOIDES Office, should rotate amongst the member institutions of IPOD/DSDP on a two-year basis. At a later stage, it was agreed that this rotation should remain within the U.S. institutions.

2. In 1983, the Executive Committee reconfirmed that the JOIDES Office will rotate bi-annually amongst the participating U.S. institutions, except for the Science Operator's institution. At this time it was also restated that the JOIDES Office is responsible for the production of the JOIDES Journal and that JOI Inc. will provide logistical support for the Office.

3. Since the inception of IPOD, the chairmanship of the Executive and Planning Committees and the JOIDES Office has rotated as follows:

1974-76	1	Lamont-Doherty Geological Observatory
1976-78	2	University of Washington
1978-80	3	Woods Hole Oceanographic Institution
1980-82	4	Scripps Institution of Oceanography
1982-84	5	RSMAS, University of Miami
1984-86	6	University of Rhode Island

The current term at URI ends on 30 September 1986 and the JOI Board of Governors will need to decide on arrangements for the future of the Office.

4. There has been some concern expressed as to the efficiency of the present rotation system and two-year period of operation of the Office at any one institution. The attached note summarises the advantages and disadvantages of various rotation arrangements. It is understood that the JOI Performance Evaluation Committee has considered the issue of rotation and the arrangements for Executive and Planning Committees' chairmanships.

5. The Executive Committee is asked to consider this issue and make recommendations to the JOI Board of Governors.

December 1985

APPENDIX H

CURRENT PCOM MEMBERSHIP & LENGTH OF SERVICE

AS AT 1 JANUARY 1986

	Date Appointed	Length of Service
R. Larson, URI (Chairman)	3/1/84	1 yr. 8 mos.
*H. Beiersdorf, FRG	7/1/76 (re-appointed 1/1/85)	9 yrs. 6 mos.
*J-P. Cadet, France	1/1/85	1 yr.
*T. Francis, U.K.	1/1/86	-
S. Gartner, TAMU	1/1/85	1 yr.
D. Hayes, L-DGO	7/1/77	8 yrs. 6 mos.
J. Honnorez, RSMAS	1/1/82	4 yrs.
D. Hussong, HIG	6/1/85	7 mos.
M. Kastner, SIO	9/1/84	1 yr. 4 mos.
R. McDuff, UW	1/1/84	2 yrs.
N. Pisias, OSU	11/1/85	2 mos.
*P. Robinson, Canada	9/1/85	4 mos.
T. Shipley, UTA	9/1/85	4 mos.
*A. Taira, Japan	3/1/85	9 mos.
R. Von Herzen	9/1/82	3 yrs. 3 mos.

*Rotation for non-U.S. members does not apply as they serve as representatives of their national agencies.

ROTATION OF THE JOIDES OFFICE

Options	Advantages	Disadvantages
1. Current system rotating amongst U.S. institutions on a 2-year basis	a. PCOM Chairman remains within his own academic community	a. Short period with loss of time at start and end
	b. Existing system with which there is familiarity	b. Problem of creating new communications between JOIDES Office and JOI/TAMU/NSF
	c. Democratic as each institution can host the JOIDES Office	c. Differing styles of operation and systems at each host institution with varying levels of support from the host institution
	d. PCOM Chairman and Secretariat on same site	
1A. Current system with overlap period between transfer	a. As Option 1 above	a. As Option 1 above but less loss of time
		b. Duplication of staff effort and expenses
2. Lengthen current period of tenure to 3 years	a. As above for Option 1	a. As above but increased period of tenure improves the situation under (a) above (Option 1)
		b. Difficulty of persuading PCOM Chairman to devote increased period to the Office

3. Establish PCOM Secretariat on permanent basis, probably at JOI with PCOM Chairman rotating as previous arrangements (either 2 or 3 years)	a. Continuity of operations	a. Separation of PCOM Chairman and Secretariat - is this crucial with advanced electronic communications?
	b. As set out under Option 1 above	
4. PCOM Secretariat established on permanent basis (at JOI) with PCOM Chairman rotating on 2 or 3 year basis but based at JOI	a. Continuity of operations	a. Difficulty of recruiting Chairman to leave host institution for 2-year period
	b. Democratic rotation of PCOM Chairman office	b. Management very centrally focused at JOI Inc.
	c. PCOM Chairman and Secretariat on the same site	c. Loss of contact between PCOM Chairman and his own institution and community
		d. Expenses in moving PCOM Chairman

APPENDIX J

JOIDES JOURNAL DISTRIBUTION

1. The JOIDES Journal was instituted in 1975 and has remained the main organ for dissemination of information about DSDP and later ODP to the scientific community at large. Its production three times per year is the responsibility of the JOIDES Office. In addition to the regular issues (normally February, June and October) occasional special issues are produced. The JOIDES Office has recently produced a "Guide to ODP" as a special issue and is currently preparing the Safety Manual as a further special issue.

2. The cost of printing the JOIDES Journal is met by JOI Inc. and the present budget allocation is $15,000 per annum. Distribution of the Journal has fallen on to the JOIDES Office budget and is approximately $800 per issue.

3. The Journal distribution list has been increasing steadily over the recent past and now stands at nearly 1800 which includes bulk mailings to non-U.S. partner nations and others and to U.S. institutions. In addition there are individual mailings covering most U.S. institutions as well as individual mailings to non-U.S. addresses.

4. Early in 1985, the JOIDES Office wrote to non-U.S. contact points (normally the EXCOM representative) to obtain national distribution lists and to eliminate duplication between them and the individual mailings list used by the JOIDES Office. This created some minor savings.

5. From the attached breakdown of the distribution list for the October 1985 issue of the Journal, it will be seen that bulk mailings of 75 and 98 copies respectively are sent to the U.K. and the ESF. In addition, there are 59 and 31 individual mailings to addresses in the U.K. and the ESF.

6. Should the USSR join the Ocean Drilling Program it is expected that a bulk mailing will be made to that nation thus increasing the print run for the Journal. However, in the event that the U.K. or the ESF do not join ODP, the Executive Committee is asked to advise whether bulk mailings should be continued to these previous candidate members.

7. It must be recognised that the demand for the Journal is likely to continue to increase, despite periodic "weedings" of the mailing list, and that an increased funding allocation will be necessary for this activity.

BULK MAILINGS

Non-U.S.:

98	ESF
75	U.K.
85	France
120	Federal Republic of Germany
100	Japan
50	Canada

U.S.:

40	DSDP
52	EXXON (payment of $2.50 per copy received from EXXON to JOI)
25	SIO Industrial Associates
20	WHOI Industrial Associates
30	NSF
100	ODP Science Operator
86	JOI (50 bulk plus any remainder; 36 based on last mailing)

INDIVIDUAL MAILINGS

U.S.:

24	SIO
30	WHOI
43	LDGO
11	TAMU
15	URI
391	individuals in other academic and research institutions and the private sector as well as libraries

Non-U.S. (total 319):

43	Canada		
30	FRG		
24	Japan		
44	France		
59	U.K.		
28	USSR		
31	ESF	1-Spain	1-Belgium	1-Denmark
		2-Sweden	2-Greece	3-Norway
		6-Netherlands	5-Italy	10-Switzerland

9	Australia	1	Indonesia
6	New Zealand	1	Barbados
1	Taiwan	1	Pakistan
1	Costa Rica	2	South Africa
1	Thailand	7	P.R. China
1	Argentina	2	Iceland
1	Fiji	4	India
1	Israel	7	Brazil
1	Monaco	7	Chile
1	Bulgaria	3	Mexico
1	Tunisia	1	Nigeria

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MD

56	to EXCOM, PCOM, Panel Chairmen, VIPs (1st class, airmail postage)
15	to JOIDES Office

JOIDES Planning Committee Meeting
20-24 January 1986
La Jolla, California

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26		PCOM Chairman Absence in Mar./Apr.
26/27		Lead Time in Planning
27		COSOD-2

JOIDES Planning Committee Meeting
20-24 January 1986
La Jolla, California

ACTION ITEMS

Page	Item	Responsibility
13	Request SOHP to consider the conditions and technical requirements needed for drilling a deep stratigraphic test well in the Somali Basin.	PCOM Chairman
17	Request that the thematic panels re-identify their highest priority global objectives for drilling and that they suggest where they can be best attained.	PCOM Chairman
18	Development of a downhole seismic program to be conducted on Leg 109.	Wireline Logging Services
21	Request the CEPAC, TECP and SOHP develop recommendations for Leg 112.	PCOM Chairman
23	Request the schedule for RRS DARWIN for presentation at the next meeting.	UK Representative
24	Request that TECP, SOHP and IOP re-evaluate the options for the SWIR and Red Sea programs with the addition of the Makran area, an additional Neogene package (Neogene-2) and the Somali deep hole proposal as options.	PCOM Chairman
24	Preparation of ship schedules that take into account the following possibilities: the agreed Indian Ocean program including the SWIR and Red Sea programs, an Indian Ocean program without SWIR and Red Sea but which includes the Makran and Neogene-2 programs as replacements and an agreed program with SWIR, Red Sea and the Somali Basin.	Science Operator
25	Request that panels develop a rotation scheme for membership.	PCOM Chairman
25	Appointment of panel chairmen to SOHP and LITHP	PCOM Chairman
26	Preparation and distribution of invitations and agendas for the Panel Chairmen's meeting at Oregon State University.	JOIDES Office

JOIDES PLANNING COMMITTEE MEETING
SCRIPPS INSTITUTION OF OCEANOGRAPHY
LA JOLLA, CALIFORNIA
20-24 JANUARY 1986

MINUTES

PCOM Members:

R. Larson (Chairman) - University of Rhode Island
H. Beiersdorf - Federal Republic of Germany
J-P. Cadet - France
T. Francis - United Kingdom
S. Gartner - Texas A&M University
D. Hayes - Lamont-Doherty Geological Observatory
[illegible]. Honnorez - University of Miami
J. Hussong - University of Hawaii
M. Kastner - Scripps Institution of Oceanography
R. McDuff - University of Washington
N. Pisias - Oregon State University
P. Robinson - Canada
T. Shipley - University of Texas
A. Taira - Japan
R. von Herzen - Woods Hole Oceanographic Institution

Panel Chairmen:

D. Appleman - Information Handling Panel
M. Arthur - Sediments and Ocean History Panel
J. Austin - Atlantic Regional Panel
G. Claypool - Pollution Prevention and Safety Panel
D. Cowan - Tectonics Panel
J. Jarry - Technology and Engineering Development Committee
J. Kennett - Southern Oceans Regional Panel
J. Peirce - Site Survey Panel
G. Purdy - Lithosphere Panel
D. Rea - Central and Eastern Pacific Regional Panel
M. Salisbury - Downhole Measurements Panel
J. Curray (for R. Schlich) - Indian Ocean Regional Panel
B. Taylor - Western Pacific Regional Panel

Liaisons:

R. Anderson - Wireline Logging Services Contractor (ODP/L-DGO)
G. Brass - National Science Foundation
J. Clotworthy - Joint Oceanographic Institutions Inc.
L. Garrison - Science Operator (ODP/TAMU)

Guests/Observers:

J. Baker - Joint Oceanographic Institutions Inc.

R. Buffler - National Science Foundation
D. Heinrichs - National Science Foundation
R. Jarrard - Wireline Logging Services (ODP/L-DGO)
J. Natland - Scripps Institution of Oceanography
J. Orcutt - Scripps Institution of Oceanography
M. Zoback - Stanford University

ODP/TAMU:

B. Harding - ODP Engineering Staff
S. Howard - ODP Engineering Staff
S. Serocki - ODP Engineering Staff

JOIDES Office:

M. Burdett - University of Rhode Island
D. Keith - University of Rhode Island
A. Mayer - University of Rhode Island

576 INTRODUCTIONS AND WELCOMING REMARKS

R. Larson, PCOM Chairman, convened the 20-24 January 1986 annual meeting of the JOIDES Planning Committee and JOIDES Panel Chairmen which was held on the campus of Scripps Institution of Oceanography (SIO) in La Jolla, California. Meeting participants were welcomed to SIO by M. Kastner (SIO PCOM representative).

After the introductory remarks, R. Larson welcomed T. Francis following the decision by the UK to join the ODP and N. Pisias as the new PCOM representative from OSU. Larson welcomed the new Panel chairmen: Rea (CEPAC), Taylor (WPAC), Austin (ARP), Peirce (SSP), Cowan (TECP) and Jarry (TEDCOM) to their first annual meeting.

577 ADOPTION OF THE MEETING AGENDA

The proposed agenda was amended to include a discussion of current and future program operations and a PCOM subcommittee report on packer development at the end of the Science Operator Report and to include a discussion of overall long range planning guidelines, as part of Long Term Planning. Finally, discussion of Engineering Developments and Priorities was inserted between Annual Reports from Panel Chairmen and Short-Term Planning.

It was moved by D. Hussong that the agenda be accepted with the proposed amendments. The motion was seconded by H. Beiersdorf.

Vote: 15 for; 0 against; 0 abstain

578 MINUTES OF THE PCOM MEETING, 8-10 OCTOBER 1985 (RHODE ISLAND)

It was moved by H. Beiersdorf that these minutes be accepted with the inclusion of the following amendment to Item 575:

JOIDES Site Survey Panel

It was noted by the PCOM Chairman that USSAC had appointed Fred Dunnebier (HIG) and Marc Langseth (L-DGO) as US members of this panel. The motion was seconded by A. Taira.

Vote: 15 for, 0 against, 0 abstain

579 REPORT OF THE EXCOM MEETING, 7-8 JANUARY 1986 (HAWAII)

Membership

R. Larson reported that the United Kingdom has joined the ODP and its membership is retroactive to 1 October 1985. With the addition of the UK to the Program, membership now stands at 6 countries, including the US, however the NSF has indicated that the current budget for FY86 will not be directly affected by this action. T. Francis (UK PCOM representative) expressed the gratitude of the UK geoscience community for an opportunity to participate in the ODP and thanked all of those who aided in keeping the UK informed of ODP activities during negotiations.

It is was also stated that the Scandinavian countries of the European Science Foundation (ESF) may be prepared to increase their initial contributions by 40-50%. In addition, the other ESF countries are also expected to increase their contributions. This commitment should result in 70-75% of a full subscription. In addition, the ESF has asked Australia for an approximate 20% contribution in order to complete the membership and it is anticipated that a full membership could be obtained by May 1986. A decision will be made in early March 1986 at a meeting in the Netherlands.

In closing the issue of membership, Larson mentioned that there was no news from the USSR.

Review of the Budget for FY 87-88

At the Hawaii EXCOM meeting, JOI indicated that they had met with NSF in October 1985 to ask guidance in determining target figures for FY87-88. A preliminary analysis of the proposed FY 87 budget by JOI indicated that there were no major items to be considered at this time. It was agreed that NSF would review potential problem areas with JOI and recommendations will be provided to the EXCOM and the ODP Council at the April 1986 meeting. At that time the EXCOM may/may not require the PCOM to review the program. It was further emphasized that if the PCOM Budget Subcommittee is asked to review the program, it will be asked to do so only after it has been initially presented to the EXCOM and ODP Council.

Rotation of Planning Committee Membership

It was approved by the EXCOM that J. Honnorez (Univ. of Miami) and/or D. Hayes (L-DGO) stay on the PCOM 1 year past their planned rotation date in order to give the new members an additional year of their experience. EXCOM also suggested that in the future, the incoming PCOM chairman serve possibly 1-2 years before taking the helm.

JOIDES Panel Structure

Larson had informed the EXCOM that the present panel structure was under review by PCOM. After discussing the issue and possible reasons for change, it was the consensus of the EXCOM that the PCOM be asked to maintain the status quo, as far as possible. EXCOM further indicated that the present panel structure was established in order to provide the necessary check and balance system for planning. The EXCOM stated that if more than minor changes are proposed at the PCOM then these should be brought to the EXCOM for discussion before implementation.

COSOD-2; Long Range Planning of the ODP

It was unanimously agreed by the EXCOM that now is the time to begin planning and designing a schedule for COSOD-2. Further, it was the consensus of EXCOM that COSOD-2 be held in early 1987, possibly in Europe, and that PCOM should be asked to draft an outline for the meeting at its Jan. 1986 meeting. This draft will be distributed among the EXCOM for comment prior to the April 86 EXCOM and presented at that time. If there were significant objections from the EXCOM then these could be addressed at the May 86 PCOM meeting.

580 NATIONAL SCIENCE FOUNDATION REPORT

G. Brass (NSF) reported that there is no clear picture emerging that indicates how the the Gramm-Rudman legislation will affect the approximately $32 M budgeted for ODP operations during FY 86. NSF is unable to make any long term forecasts for the $36 M proposed for the FY 87 budget as it has not yet been sent to Congress for review. However, Brass did encourage the PCOM to develop long range plans for riser drilling operations and to develop a COSOD-2 conference which would chart the future of the ODP.

Brass asked PCOM members to develop liaisons with continental drilling agencies both nationally (e.g. in the US relevant groups are the Deep Observation and Sampling of the Earth's Continental Crust, Inc. (DOSECC), the United States Continental Scientific Drilling Program and the Salton Sea Scientific Drilling Project) and internationally in order to encourage cooperation and the sharing of technologies between the various organizations. In that spirit of cooperation, Brass suggested that PCOM reinstate a previous practice of inviting a representative of DOSECC to their meetings. In response, JOI indicated that it has cooperated with DOSECC at the corporate level but emphasized that there is a need for cooperation at the science level.

Brass closed his report by announcing that as of September 1986 there will be a vacancy at the ODP Office at the NSF as he will be returning to the University of Miami.

Discussion:

von Herzen: How have the long range plans for continental drilling affected long range planning for ocean drilling within NSF ?

Brass: If there has been any effect, it has been to encourage more cooperation between the two groups, possibly to the point of the development of an onshore/offshore drilling transect.

581 JOINT OCEANOGRAPHIC INSTITUTIONS REPORT

Baker (JOI) reported that JOI, Inc. is in the process of producing an ODP brochure (for NSF) for distribution to the US Congress and to the general public which explains the nature, past sucesses and future goals of the program. A draft manuscript is being prepared and will be distributed to PCOM members as soon as it is completed.

Performance Evaluation Committee Report

Baker also reported that the JOI Performance Evaluation Committee (PEC) has not yet completed its report. However, the committee has met to examine operations and facilities at L-DGO, TAMU, JOIDES RESOLUTION and at JOI, Inc. Generally the PEC indicated, in preliminary terms, that the program is working well and that there are good interactions between the subcontractors and the JOIDES advisory groups. The report will be completed in February 1986 and presented at the EXCOM meeting in April 1986.

Discussion:

Kastner: Did the PEC review the present panel structure ?

Mayer: The PEC covered all aspects of the Program.

Budget Planning for FY 87

J. Clotworthy (JOI) reported that the budget for FY 87 (approx. $36M) is based on a program with 5 non-US members and was refined by JOI, in concert with NSF and the subcontractors. After examining the proposed budget, TAMU concluded that they could deliver a program with engineering for the upcoming legs, conduct operations at suitable levels and would have sufficient monies for fuel at possibly increased prices. However, two problems areas were identified in the TAMU budget and a third problem area was identified in the L-DGO budget (for a more detailed explanation, see the JOI Report in the 7-8 January EXCOM meeting minutes).

Clotworthy indicated that a program plan for FY 87 is currently in preparation and will be presented to the EXCOM at its April meeting. Clotworthy also said that the Site Survey Panel's request that $12 K be reinstated in the ODP Databank budget will be honored by JOI and sources are being identified.

582 SCIENCE OPERATOR REPORT

M. Arthur (URI-Co-chief for Leg 105) and J. Honnorez (U. of Miami- Co-chief for Leg 106) and members of the ODP/TAMU engineering staff presented preliminary results from their respective cruises.

Leg 105 (Baffin Bay/ Labrador Sea)

M. Arthur reported that the objectives for Leg 105 were to define the tectonic development of the Baffin Bay/Labrador Sea area, to develop a history of paleocirculation through these regions and determine their connection to the Arctic and Atlantic regions, determine the timing and nature of major paleoclimatic changes and the frequency of oscillations between glacial and interglacial cycles which prevailed in these regions.

At Site 645 (Baffin Bay), seven holes were drilled to a total depth of greater than 1100 meters below the seafloor and a complete L. Pleistocene sequence of glacial dropstones, other ice-rafted debris and generally unfossiliferous sediment that containing glacial/interglacial cycles was recovered. At Site 646 (Labrador Sea), two holes were drilled to a total depth greater than 700 meters below seafloor and penetrated the Miocene-age seismic reflectors R3 and R4. At Site 647, two holes were drilled through an Quaternary-Eocene sedimentary sequence to basement. Drilling also penetrated the Pliocene-age seismichorizon R2 and Miocene reflectors R3 and R4.

In continuing his report, Arthur reported that while the cruise was generally successful, a number of problems did occur. The late start in leaving St. John's was due to repairs to the drillstring heave compensator which reduced drilling operations by 2 days. Additional problems in drilling operations (e.g. having to pull out of the hole (POOH) and relocate the drill site after encountering subsurface glacial dropstones) resulted in the loss of another 4 days. The Pliocene-Quaternary age sedimentary sequence caused several problems, especially repeated core liner failures. Biostratigraphic age determinations and reconstructions were difficult because of the low $CaCO_3$ concentrations in the sediment. The Advanced Piston Corer (APC) was successfully used in heavy seas using the drillstring heave compensator.

Arthur closed his report by stating that the ice picket boat was very helpful in identifying "growlers" and other small icebergs and the time lost due to ice had been minimal. A film crew,

commissioned by JOI, had filmed operations during part of Leg 105.

Leg 106 (MARK-1)

J. Honnorez reported that engineering objectives were the basis for Leg 106 planning and that three "firsts" were accomplished: the first unsupported bare rock spud-in along the neovolcanic zone of a slowly-spreading mid-ocean ridge (MOR) system, the first bare rock guidebase system was set on the floor of a MOR and the first and only successful attempt to drill an active hydrothermal system. This latter operation yielded a cross-sectional view of an active hydrothermal vent (APPENDIX A). The success of this was a credit to the TAMU engineers and to the SEDCO drilling team. Honnorez commended the Site Survey party for their detailed mapping of potential sites. The success of the operation was enhanced by using the Mesotech sonar and the TV/camera system in combination to provide precise navigation and location of the site during deployment of the guidebase and during bit re-entry operations.

In further reviewing Leg 106 operations, Honnorez noted that there were communication problems between the engineers and the drillers and between the scientists and the technicians. In addition, Honnorez suggested that there could be a problem on Leg 109 if a new drilling crew is used to the deepen the already established hole and he recommended that the SEDCO crew used on Leg 106 be used since they are familiar with potential drilling problems. The science party recommended the following for operations on Leg 109: that more and better drill bits be designed, that there be more and better designed drilling jars and that the cementing process be improved to control the rubble problem encountered on Leg 106. In terms of the science laboratories, the science party recommended that the X-ray fluorescence (XRF) unit be repaired and that a sample preparation area for XRF/XRD samples be established near the XRF/XRD labs. The science party also recommended that the number of spaces for petrographic microscopes be increased and that point counting stages for these instruments be obtained for modal analysis.

Hard Rock Drilling Guidebase

S. Howard (ODP/TAMU Engineering) reported that the assembly of the guidebase took place in the moonpool of RESOLUTION in 17 hours in deteriorating weather conditions which lasted 4 days. However, if conditions are right, the total time for assembly and deployment should be 1 1/2 - 2 days. Due to the size of the structure (it only just fitted within the moonpool) and weight (40k lbs -in air), it was somewhat difficult to handle during deployment.

Deployment

During deployment, electronic beacons on the foot pads determined the height of the guidebase above the seafloor and the beacon was landed at the summit of a volcanic plateau (Site 648B-Serocki Volcano) in an area of very low slopes (less than 5 degrees) covered by recent pillow lavas. The guidebase was deployed with one leg in a fissure and the other three on firm ground because the deployment team could not see under the structure. In the future, a camera will be attached to the side of the structure in order to provide a view of the footing under each pad.

Drilling

At Site 648A, unsupported bare rock drilling was achieved by using the mudmotor to drill a single bit hole. After this site was established the guidebase was lowered on Site 648B. In reviewing drilling operations (APPENDIX B, sheets 1-4), Howard indicated that the total time for drilling was 69 hours; the remainder of the time was spent reaming and cementing the hole. Howard noted that the most difficult part of the operation was rubble collapse in the hole. However, the problem eased when the hole size was reduced. Another problem noted at Site 648A was the lack of freshwater needed to mix with the drilling mud. The situation was somewhat eased by mixing the mud with seawater; however, it was felt that this solution may have created an additional problem during drilling as the viscosity may have been changed. Howard concluded the site summary for Site 648A by indicating that the reason for terminating operations with 6 days left in the program was that hole conditions steadily worsened. The remaining time of Leg 106 was spent at Site 649 (Snake Pit hydrothermal vent area). At this site coring motors were deployed but problems were encountered as another type of core catcher was needed to sample the sand-size hydrothermal sediments.

Engineering Recommendations

S. Serocki (ODP/TAMU), on behalf of the other ODP/TAMU engineers, made the following recommendations for Leg 109: casing should be set 40-60 meters below the seafloor, the hole should be drilled out with a 12 1/4 inch drill bit, 10 3/4" flushjoint casing should then be set and drilling continued with the 9 7/8" drill bit. With the smaller diameter hole (9 7/8") the penetration rate should increase dramatically (APPENDIX B). In addition with a smaller diameter hole, no more reaming will be necessary as drilling will be in much more stable conditions and should result in reduced wear on the bit design. Further, ODP/TAMU engineers recommended that a variety of bit designs with improved cutting structures should be taken on Leg 109. The hole should be easier to keep clean due to its smaller diameter. Present estimates with this less aggressive strategy indicate that rates of up to 10 meters/day of penetration are possible and that in 40 days approximately 200-250 meters can be drilled using high viscosity drilling mud. Serocki closed the report by indicating that the most difficult part of the program has been accomplished.

Current Operations and Future Plans

Current Schedule (APPENDIX C)

Leg 107 (Tyrrhenian Sea)

L. Garrison (TAMU) indicated that at the Malaga, Spain port-call in late December 1985 there were logistics problems with freight deliveries to RESOLUTION. Present plans, once the missing freight is located, are to ship it to Naples, Italy to be loaded on a supply boat which would in turn transport the freight to the ship. The freight includes a supply of helium and electronics for the cryogenic magnetometer. In order to accomplish this operation, the drilling order has had to be reversed from that originally planned. Leg 107 is currently operating in the Marsili basin at Site 7B with objectives to compare the age and geochemistry of this area with that of the Vavilov basin. Current results indicate that 30 m of basement have been drilled but the hole was terminated when the Extended Core Barrel (XCB) became lodged in the hole. Preliminary analysis of the recovered material indicated unexpectedly young sediments (1.7-1.8 m.y. old) composed of an upperunit of turbidites underlain by calcareous sediments with mudstones. These units overlie a basaltic basement of possible tholeiitic composition. There was no logging conducted at this site due to hole conditions. At site TYR 5B, a single bit hole was drilled to a total depth of 550 m with 50 m into basement. Analyses suggest that basement at this location consists of a gabbroic breccia which overlies peridotite. Logging was conducted on the upper sections of the hole.

At the time of this report, the ship was operating at TYR 3A (Site 652a). Future plans call for two film crews to visit the ship during the leg. The cruise will end in mid February at Marseilles, France.

Leg 108 (NW Africa)

Leg 108 is now fully staffed. Some changes to the original drilling plan have been made to avoid clearance problems. Because of the lack of response from the Moroccan Government for permission to drill, two sites were changed and approved at the pre-cruise meeting of the co-chief scientists. MAU 6 has been moved south of its original position into the waters of Mauritania and renamed to MAU 6A. Mauritania has been asked for clearance to drill. In addition SLR-1, located in the territorial waters of Guinea-Bisseau, has been moved south of its original location into international waters and renamed SLR-1A. Finally, site 139R may be eliminated from the program due to the current Moroccan clearance situation.

Discussion:

During discussion of the clearance situation, Garrison warned that as the Program moves from the Northern Atlantic and Mediterranean areas into Third World waters clearances will be harder to obtain, no matter how far in advance of cruises the applications are made. JOI indicated that it is working with NSF to establish informal contacts and to create other mechanisms for obtaining clearances from Third World governments. It was also suggested that the non-US members of JOIDES may be able to assist ODP by advising on appropriate contacts and by using their influence with the countries concerned. This has been tried in the past with some limited success. In view of the increasing complexity likely for ship's clearance in the Indian Ocean and the West Pacific region, PCOM suggested that ODP/TAMU should consider an additional full-time position to process and follow-up clearance applications.

Packer Development:

D. Hussong introduced a report (APPENDIX D) on the status of packer development and M. Salisbury presented a detailed report by K. Becker which outlined the types of packers presently available and their properties. It was agreed that a straddle packer should be used in th re-entry hole in both the cased and open sections. The possibility of using a Lynes sampler for fluid sampling was discussed.

Engineering Development:

Underway Geophysical Capability of RESOLUTION:

Presently, RESOLUTION has a single channel seismic system with 80 cu.in. waterguns and an airgun that is capable of real-time digital signal processing. The ship also is equipped with hull-mounted 3.5 and 12 kHz systems that are presently non-functional due to their location along the hull. ODP/TAMU plans to study where they can be best relocated to be operational. The consensus is that the seismic system provides data, of reasonable quality, up to speeds of 6 knots. At higher speeds the quality of the data drastically declines until the ship is on site. It has been suggested that the tow point off the stern is so high as to disturb the receiving capabilities of the streamers. It was suggested that lowering the towpoint should be investigated as should the possibility of towing the streamers from a boom amidships.

Engineering and Technology Developments and Priorities:

B. Harding reported. He pointed out that he has only a small team of engineers to tackle the major developments agreed for the program of which the developments of a barerock drilling system

and drill-in casing were the highest priorities. He also indicated that an ongoing program of bit and coring developments as well as review and improvement of existing systems were high on the agenda. In order to achieve these objectives, Harding welcomed additions to his group of non-US engineers to work at TAMU as visiting engineers whose positions are funded with ODP/TAMU covering living expenses and the member country covering salary.

Specifically, Harding reported on the following developments:

Leg 107

On Leg 107, a number of engineering tests will be conducted on a new hydralic bit release system and on a lockable flapper valve for the XCB system. An evaluation and examination of the material of the core liners has been undertaken, a venturi sub has been developed to improve core recovery and the XCB cutting shoes have been modified.

Leg 108

A free-fall re-entry cone will be loaded on RESOLUTION for testing. The venturi sub will be tested on this leg.

Leg 109

ODP Engineering is presently getting prepared for Leg 109 with drilling motors undergoing refurbishing, and there will also be an increase in the inventory for drill bits and drilling jars.

Leg 110

Harding indicated that the major thrust for Leg 110 is the development of a triple casing string for the decollement zone. The back-up for this system will be the drill in-casing system from DSDP, which has been refurbished and overhauled. R. McDuff (UW) added that the Barnes/Uyeda porewater tool will be available for this leg.

Leg 112

The Pressure Core Barrel is undergoing modification and an overhaul for Leg 112 activities.

Future Activities

Harding requested that a riser drilling seminar (similar to the logging seminar presented at this meeting) be presented at the next PCOM meeting in order to give the membership an introduction to drilling with a riser.

Other activities include sponsoring (with USSAC and Sandia Labs)a high temperature water sampling workshop and continuing

discussions with Norton-Christiansen on high speed diamond drilling operations. Further, the engineering group requested that the non-US members of JOIDES suggest participants for two positions in their Visiting Engineers Program. These positions are funded with ODP/TAMU covering living expenses and the member country covering salary.

Discussion:

During discussion of developing a deep sedimentary environment program (e.g. a Moroccan deep hole), it was agreed that the idea needs additional research and SOHP was asked to develop boundary conditions. Further, several PCOM members supported the development of high speed diamond drilling techniques and welcomed its inclusion into the program.

583 WIRELINE LOGGING SERVICES OPERATOR REPORT

R. Anderson (L-DGO) reported that the Terralog Log Analysis System, placed on RESOLUTION during early 1985, is giving very good results. When applied to Leg 103 data, a seismogram was generated from the logging data that correlated with dolomite "stringers" observed in the lithologic data. Presently, L-DGO is investigating possible solutions to the problem of logging in bad hole conditions and problems associated with the swelling of clays using the freshwater drilling mud. The TAMU engineering group has been asked to investigate ways in which the problem of clay swelling can be eliminated or its effects reduced. Anderson indicated that a second edition of the ODP Logging Manual will be published during 1986 which will emphasize the scientific uses for the tools. The manual may also be published in the 1986 edition of REVIEWS OF GEOPHYSICS. Anderson closed his introductory remarks by stating that an additional $140 K is needed in the L-DGO budget for the purchase of a second Borehole Televiewer (BHTV) and Multi-channel Seismic (MCS) system. He noted that the availability of backup tools increases the success rate of logging from 68% to 98%.

Leg 107 (Tyrrhenian Sea)

On Leg 107, logging analyses from the Terralog system will be compared with that of the Energy Systems logging package. In addition a Californium atomic source will placed on the ship, prior to Leg 109, for use in the nuclear combination tool. The nuclear combination tool will be built into a sonde 95 ft. high and should yield information for clay typing, including the weight percent of aluminum.

Leg 108 (NW Africa)

The L-DGO Borehole Research Group has lowered the priority of thru-the-pipe logging due to potential damage to the structural integrity of the drillpipe by hole conditions when not rotating

at the bottom of the hole. On Leg 108, a sidewall entry sub (APPENDIX E) developed by IFP (France) will be tested as an alternative to thru-the-pipe logging.

R. Jarrard (L-DGO) also indicated that the co-chiefs now favor the inclusion of sonic and lithologic logs into the cruise plan, if clearance problems create more operations time. The Borehole Research Group estimates that logging at Sites MAU4, MAU 5 and SLR 1A will take 18 hrs./hole, with 11 hours devoted to the nuclear combination tool, 3 hours for hole preparation and 4 hours for the Long Spacing Sonic tool (LSS).

Because of this request, Anderson asked guidance from the PCOM on whether, based on the uncertain logging workload, to include a Schlumberger field engineer in the logging party. The Downhole Measurements Panel (DMP) favors logging on Leg 108 because of the potential for clay typing, possible detection of climatic cycles and seismic stratigraphic correlation. The PCOM indicated that based on this new information, it should probably rescind the decision made at the October 1985 meeting. A new motion proposed by von Herzen (WHOI) and seconded by Kastner (SIO) was as follows:

PCOM Motion: The Planning Committee requires that the Leg 108 co-chief scientists conduct a standard logging package at the three priority sites (MAU 4, MAU 5 and SLR 1A). Options exist for logging the other sites.

Vote: 13 for, 1 against, 1 abstain

Members of the L-DGO Borehole Research Group (R. Anderson, R. Jarrard and M. Zoback) held an evening seminar for PCOM members and guests to explain the detailed measurements and interpretations that can be made with the present logging instrumentation. This seminar was adjourned and will be resumed during the May PCOM meeting.

584 ANNUAL REPORTS FROM JOIDES PANEL CHAIRMEN

For Executive Summaries of JOIDES Panel Activities for 1985, see the following appendices:

Lithosphere Panel (LITHP)-APPENDIX F
(presented by M. Purdy-WHOI)

Discussion:

In addressing a question on planning for an East Pacific Rise drilling program versus a return to Site 648B, Purdy indicated that LITHP considered both programs to be of equal importance to the ODP and should be investigated. When asked what would be the amount of time necessary to achieve COSOD objectives, Purdy

responded that the question could be answered on a number of levels. However, the COSOD objectives could be best addressed by establishing a global suite of drillholes (4, possibly 6, holes) for long term observation and sampling.

Sediments and Ocean History Panel (SOHP)- APPENDIX G
(presented by M. Arthur-URI)

Discussion:

Discussion centered on the SOHP recommendation to drill a deep stratigraphic test hole in the Somali Basin as part of deep stratigraphic tests program. During this time the deep drilling capabilities of RESOLUTION, with a riser, were discussed and it was generally agreed that there is a substantial amount of interest for a deep hole in the Somali Basin. Discussion also indicated that from the standpoint of engineering feasibility additional drilling techniques may have to be developed. In closing discussion, the Science Operator suggested that as a prelude to riser drilling, a deep hole (approx. 2000 m deep) may be needed.

Tectonics Panel (TECP)- APPENDIX H
(presented by D. Cowan-Univ. of Wash.)

Atlantic Regional Panel (ARP)-APPENDIX I
(presented by J. Austin-UT, prepared by L. Montadert-IFP)

Southern Oceans Panel (SOP)- APPENDIX J
(presented by J. Kennett-URI)

Indian Ocean Panel (IOP)- APPENDIX K
(presented by J. Curry (SIO) for R. Schlich (IPG)

Western Pacific Regional Panel (WPAC)- APPENDIX L
(presented by B. Taylor- Univ. of Hawaii)

Central and Eastern Pacific Regional Panel (CEPAC)- APPENDIX

(presented by D. Rea- Univ. of Mich.)

Downhole Measurements Panel (DMP)- APPENDIX N
(presented by M. Salisbury- Dalhousie Univ.)

Site Survey Panel (SSP)- APPENDIX O
(presented by J. Peirce- Petro Canada)

Information Handling Panel (IHP)- APPENDIX P
(presented by D. Appleman- Smithsonian Inst.)

Pollution Prevention and Safety Panel (PPSP)- APPENDIX Q
(presented by G. Claypool- USGS)

Technical and Engineering Development Committee (TEDCOM)- APPENDIX R
(presented by J. Jarry- IFREMER)

585 REVIEW OF JOIDES SCIENTIFIC ADVISORY STRUCTURE

The Planning Committee agreed that since the chairmen of the JOIDES Panels were in attendance at this meeting, it would be appropriate and very useful to discuss potential restructuring of the JOIDES panels.

Discussion of the present structure indicated that frustration with this system has resulted in the resignations of the LITHP chairman and the SOHP chairman. The frustration was based on a general feeling among LITHP and SOHP chairmen that there is an apparent lack of coordination between the panels, there is an unnecessary duplication of effort among the panels, there is a feeling that the advice of the thematic panels is largely ignored in favor of recommendations from the regional panels and that some disciplines within the geologic community (especially geochemistry) are not represented in the present structure and are being overlooked. Lastly, there was a general feeling of a majority of the chairmen that panel liaisons presently have too many meetings to attend and this system is not an effective means of communicating information.

It was suggested and agreed by both chairmen and PCOM that one of the main problems is one of communication between the panels and with PCOM. One possible solution was that an exchange of ideas between the panels occur at an annual meeting for panel chairmen and through joint panel meetings. These would provide chairmen with an opportunity to interact and develop drilling suggestions into a well defined and unified plan without duplicating ideas or objectives and to resolve differences between panels. Another suggestion was that the panel liaison system be improved to more effectively disseminate information among panels and PCOM. It was also recommended that the responsibilities of SOHP be broadened into a geochemistry panel, an ocean history-stratigraphy panel and a sedimentary processes panel in order to address the concerns of the geochemical and sedimentologic communities.

Discussion also indicated that most panel chairmen generally supported the present structure of thematic panels with support

from regional panels. In addition, the group further emphasized that the drilling program should be driven by the thematic problems addressed by COSOD.

The consensus of PCOM was that it was premature to change the panel structure at this time although it was recognized that there have been difficulties, especially in terms of communications, between thematic and regional panels. In view of this situation a better inter-panel liaison network is required. One effective means of achieving this will be to establish a meeting of the panel chairmen, to be held during the summer (in addition to the annual meeting with PCOM). A second means is to have relevant panels hold overlapping meetings in order to resolve conflicts on priorities. The development of drilling plans should be based on an identification, by the thematic panels, of the global thematic objectives which may be best attained in any particular region. Regional panels should take these themes as the basis for regional drilling plans and there should be a further evaluation by the thematic panels. At this time the resolution of any conflicting advice from the regional and thematic panels should occur. The PCOM will then construct a drilling plan based on this flow of advice. PCOM further agreed that although the Program is placed within a 10 yr. framework, it should be emphasized that the boundary conditions are flexible. It was the general consensus that while thematic panels will continue to receive proposals, regional panels will concentrate on detailed proposal review in the development of the regional plans.

PCOM agreed that COSOD-2 may provide an opportunity for a review and possibly re-alignment of the panel structure. Meanwhile, PCOM will consider ways to best include the views of the geochemical community into the planning process.

The above consensus was achieved with the Panel chairmen and later confirmed by PCOM. M. Purdy (LITHP) requested that his disagreement with the above consensus of the PCOM be reflected in the minutes of the meeting.

586 SHORT-TERM PLANNING

Revisions to the 1986 Ship Schedule

L. Garrison (TAMU) indicated that the schedule (APPENDIX C) has been changed to include a transit leg (Leg 112T) between Legs 112 and 113 with a portcall in Punta Arenas, Chile. This adjustment occurs because Callao, Peru will be used as a portcall for Legs 111 and 112 due to the difference in fuel ($76/ton in Dec. 1985) which could potentially save the program $150 K.

Leg 108 (NW Africa)

No problems are anticipated for Leg 108 other than those caused by clearance difficulties. The addition of a heat flow program has been discussed and okayed with TAMU and the co-chiefs and will be implemented by the physical properties specialist on RESOLUTION. In addition, engineering tests on the minicore system and the sidewall logging sub will be conducted.

Leg 109 (MARK-2)

It was consensus of the Downhole Measurements Panel (DMP-APPENDIX M) and the Lithosphere Panel (LITHP) that the hole established on Leg 106 be deepened with some logging conducted at the site (Site 648 B) and full suite of logging at DSDP Hole 395A.

Discussion:

During discussion the questions arose of how much drilling time is estimated to achieve a depth of 300 m and what are the options if drilling is slower than expected (i.e. is there a cut-off time and are there options to try other techniques such bare rock spud-in without the guidebase). TAMU responded that current estimates are that approximately 36 days are needed to reach an estimated depth of 250 m. It was the consensus of the group that deepening Site 648B is the highest priority of Leg 109 and that goal should remain the primary objective. If options exist, they should be along the lines of attempting different ways of bare rock spud-in.

Additional discussion was held concerning the recommendation by LITHP and DMP that logging be conducted as part of the scientific objectives for Leg 109. The following motion was proposed by Robinson and seconded by Kastner.

PCOM Motion: Recognizing that drilling into zero age crust is a major goal of the ODP, the highest priority of Leg 109 is the deepening of Hole 648B including the logging package as recommended by the Downhole Measurements Panel. If no substantial progress in drilling is achieved after 30 days the remainder of the time will be spent logging Hole 395A and the final backup for this leg will be to default to the Kane Fracture Zone as the first priority.

Vote : 11 for, 3 against, 0 abstain

Discussion then focused on determining to what extent and to what depth the rubble zone may continue to impact on drilling plans. It was generally agreed that better seismic experiments were needed in order to make that determination. Hussong proposed, seconded by Shipley, the following motion:

PCOM Motion: The Planning Committee recommends that Wireline Logging Services investigate the development of a downhole seismic program, to be conducted at an early stage in Leg 109 and at various stages of drilling, to determine the structure below the hole (including identification of rubble zones) at Site 648B using downhole geophysical techniques.

Vote: 14 for, 0 against, 1 abstain

It was felt by various members of the PCOM that the back-up plan for Leg 109 be more detailed. After discussion, the following motion was proposed by von Herzen (WHOI) and seconded by Robinson:

PCOM Motion: The PCOM recommends that the Lithosphere Panel's (LITHP) priority objectives for Leg 109 be accepted as the back-up plan with the understanding that Kane Fracture Zone objectives have a higher priority than the Snake Pit hydrothermal area and the logging at Hole 418.

Vote: 15 for, 0 against, 0 abstain

Leg 110 (Barbados)

TAMU indicates that there are no problems and that progress continues on drill-in casing development.

Leg 111

Discussion indicated that LITHP (APPENDIX F) supported the French hydrothermal program at EPR 13°N and that DMP (APPENDIX N) supported deepening DSDP Hole 504B. Some PCOM members indicated that possibly Leg 111 should be a return to further deepen Site 648B, if Leg 109 was a great success. It was generally agreed by PCOM that deepening and logging Hole 504B is a major goal of ODP and would complement the work done at Site 648B. The TAMU engineers indicated that better drill bits will be available and are confident that the hole can deepened an additional 500 m. The following motion proposed by Robinson and seconded by Kastner:

PCOM Motion: Recognizing the importance of sampling the deep oceanic crust and the difficulties of bare rock drilling on the East Pacific Rise (EPR) at this time, the PCOM recommends that Leg 111 be primarily devoted to the deepening and logging of Hole 504B.

Vote: 13 for, 0 against, 0 abstain

In discussing the option of using Leg 111 for the continued deepening of Site 648A and deferring deepening of Hole 504B to a late cruise it was generally agreed that DMP and LITHP should be asked to consider this option. In the meantime, Kastner proposed the following motion, which was seconded by Cadet :

PCOM Motion: At this stage in the planning process, the prime objective of Leg 111 is the deepening of Hole 504B. Dependent on the results from Leg 109, in terms of substantial drilling progress and the downhole experiments, PCOM will consult LITHP and DMP regarding a decision to replace drilling at Hole 504B by a third leg devoted to Hole 648B.

Vote: 12 for, 2 against, 1 abstain

The PCOM considered the logging program for the 504B program as proposed by DMP (APPENDIX N). M. Salisbury indicated that this program is similar to that proposed for Hole 395A but includes a Vertical Seismic Profiling experiment. Robinson proposed and Hussong seconded the following motion:

PCOM Motion: The PCOM recommends that the logging program as suggested by the DMP be adopted, with the inclusion of a Vertical Seismic Profiling (VSP) experiment, into the downhole measurements program for Hole 504B.

Vote 15 for, 0 against, 0 abstain

N. Pisias (OSU) indicated that a recommendation of SOHP was that a double APC program be undertaken at 504B to recover a reference sequence for the late Neogene-Quaternary section of the eastern Pacific (APPENDIX G). In considering the recommendation, PCOM agreed to the following:

PCOM Consensus: It is the consensus of the PCOM that a maximum of 5 days be included into the primary objectives of Leg 111 for drilling double APC and XCB sites in the vicinity of Hole 504B with one site to be a representative geochemical site, as proposed by Mottl, and the other is to be a paleontological site.

Co-Chief Scientists for Leg 111:

The PCOM recommended that, for Leg 111, the team of Becker (UM) and Sakai (Japan) be suggested to TAMU.

Leg 112 (Peru Margin)

TAMU indicated that co-chiefs have been selected and no logistical problems are expected. However, no specific drilling program has been developed and problems with clearances have not yet been investigated. D. Hussong indicated that before a detailed program can be developed the site survey data needs to be

evaluated by SOHP, TECP, CEPAC and the co-chiefs. It was agreed that further planning be deferred until the site survey information has been evaluated by TECP, CEPAC and SOHP.

Leg 113 (Weddell Sea)

A review indicated that excellent site survey data exist for the leg provided that POLARSTERN achieves most of its cruise objectives. H. Beiersdorf (FRG) indicated that due to severe ice conditions, POLARSTERN has only been able to collect less than 400 km of multi-channel seismic data on its current cruise. SOP had proposed Kennett (URI) and Fuetterer (Polar Inst.-FRG) as co-chiefs and SOHP had concurred. T. Francis proposed P. Barker (UK) and H. Beiersdorf proposed K. Hinz (BRG, FRG). It was agreed that the co-chief scientists team should consist of one geophysicist and one sedimentologist/paleoceanographer.

The following motion was proposed by Francis (UK), to resolve the staffing problem, and seconded by Shipley (UT):

PCOM Motion: The PCOM recommends the team of Barker (UK) and Futterer(FRG) be suggested to TAMU as co-chief scientists for Leg 113.

Vote: 5 for, 1 against, 8 abstain

Discussion of Leg 113 plans indicated that while the SSP was generally satisfied with the site survey data, it has however, requested that a piston core be taken at Site W4 and that heat flow studies be conducted at Site W10. TAMU indicated that W4 may be covered with pack ice during operations and a contingency for this site is needed. Garrison pointed out the need for an ice picket vessel.

NSF estimated that an ice picket boat can be chartered for approx. $700 K for 60 days and TAMU indicated that Requests for Proposals (RFP) will be sent for bids. Discussion then focused on other ships that may available in the Antarctic at less expensive prices. T. Francis suggested that a British vessel may be available.

TAMU also indicated that problems exist for the Weddell Sea objectives of the SOP as approved by PCOM. These problems center on the development of a detailed cruise plan in a 7 month time frame and the inclusion of logging into the science plan. In considering an alternative for W4 it was the consensus of PCOM that, since W10 has a high SOP rating as an alternative, does not appear to have safety problems and appears to be predominantly ice-free at the time of the cruise, W10 be a contingency to W4 and further the PCOM agreed that the logging program suggested by DMP for Leg 113 be included into the general science plan.

Leg 114 (Atlantic Sub-Antarctic)

It was noted that NSF has funded J. LaBreque to carry out site surveys using the R/V POLAR DUKE in Sept-Oct. 1986.

PCOM agreed to recommend that the Science Operator choose co-chiefs for this leg from SOP and SOHP recommendations (P. Ciesielski- Univ. of Fla. and J. LaBreque- L-DGO) together with the unsuccessful names from Leg 113. Other possible names suggested were K. Hsu, J. Behrandt (USGS), B. Tucholke (WHOI), R. Stein (on DSDP Leg 91).

587 MEDIUM RANGE PLANNING (INDIAN OCEAN 1987/88)

Review of proposed drilling in the Indian Ocean:

Southwest Indian Ridge (SWIR)

There was discussion of the scientific objectives of SWIR drilling including the optimum alignment of holes and the difficulties of conducting oblique seismic experiments (OSE) in SWIR. It was noted that this leg is dependent on site surveys being obtained. PCOM considered plans for the Indian Ocean in light of the above reviews and noted that it is NSF policy to devote site survey funds (in FY 87) to West Pacific targets. NSF stated that, in FY87, there are unlikely to be any additional funds for Indian Ocean site surveys as the NSF priority is for West Pacific surveys. Funds for FY86 appear to be fully committed. To be successful, at this stage, our Indian Ocean site survey program must be highly competitive, in scientific terms, with proposals for the West Pacific.

Neogene Package

In discussing the Neogene Package, as proposed by W. Prell (Brown Univ.) and included in the IOP program, it was the consensus of PCOM to approve the program as proposed with the caveat that the drilling program may require more than 1 leg. Detailed planning is dependent on site surveys, to be conducted by Prell, with GLORIA data on the distal Indus Fan being done by Kidd (IOS).

Mascarene Basin/ Fossil Ridges

PCOM Motion: In view of the impossibility of obtaining site surveys for this leg, the Planning Committee recommends that the Mascarene Basin/Fossil Ridges program be eliminated from the planning schedule.

Proposed by Robinson and seconded by Honnorez.

Vote: 15 for, 0 against, 0 abstain

Red Sea Program

After discussing the program suggested by the Red Sea Working Group, it was the consensus of the PCOM to accept the proposed scientific program, with the following change: Site 1B in the Nereus Deep should be a single bit hole with no re-entry.

It was noted that France was obliged to pospone a site survey program using SUROIT and that there could be political problems in obtaining clearances and safeguarding the ship in the Red Sea.

Kerguelen-Antarctic Margin (Prydz Bay) Program

The PCOM reiterated its October 1985 decision that the ship schedule be arranged around a normal port stop, rather than changing the ship's crew at Kerguelen, because of the extra costs involved (approx. $800 K). The PCOM asked TAMU to develop and present at the next meeting a straw schedule with the Prydz Bay program and intermediate portcalls at Reunion or Mauritius Is. included. The PCOM agreed that Prydz Bay objectives (endorsed by SOP and SOHP) and the tectonic basement objectives in N. Kerguelen (proposed by IOP and TECP) are the highest priorities for these two legs.

Broken Ridge/90°East Ridge

Difficulties in obtaining site surveys for 90°E ridge were noted. PCOM accepted the priorities for this leg as proposed by IOP and SOHP. The PCOM requested that T. Francis (UK) obtain and present at the next meeting a schedule for DARWIN. Francis indicated during discussion that DARWIN may be available for site survey operations or 90°E. It was also the consensus of PCOM that the Broken Ridge program be endorsed as proposed.

Intraplate Deformation Program

PCOM endorsed the program as proposed with some reservations on the science, specifically the origin of upward flow of water in surface temperature-depth profiles and the ability to date the onset of deformation. The program was referred to TECP and IOP for further comment. TAMU also suggested that the seismic data be examined by PPSP.

Argo-Exmouth

The PCOM generally approved the proposed plan but expressed concern that the use/success of a re-entry cone in the proposed program be assessed by the Science Operator, DMP and the proponents. This concern was expressed as the Argo/Exmouth program is one of the highest priorities of the eastern Indian Ocean and

that, as currently planned, there may be insufficient time in one leg to complete the prime objectives.

Rodriguez Ridge/Mascarene Plateau and Otway Basin Programs

These programs have been proposed as additional legs by IOP. The PCOM agreed that the previously discussed programs are more scientifically interesting legs and have a much higher priority. Some doubts were expressed as to the scientific merit of Otway Basin margin drilling. PCOM agreed not to include these proposals in the Indian Ocean program at this stage.

In planning the Indian Ocean program, it was the consensus of the PCOM to devise potential alternate legs for SWIR due to potential site survey problems and for Red Sea drilling to avoid potentially unsolvable political problems. The alternatives that were presented were an additional Neogene package leg, a deep stratigraphic hole in the Somali basin and 1 leg dedicated to the Makran. After discussing these options, the PCOM voted on the following motion as proposed by Robinson and seconded by Kastner:

PCOM Motion: The PCOM requests that IOP, TECP and SOHP consider alternatives for the Indian Ocean Drilling program and that they do this with a view that the Indian Ocean might be exited sooner than originally planned. Specifically, TECP should consider SWIR vs. Makran and SOHP should consider the additional Neogene leg vs. a Somali deephole.

Vote: 13 for, 0 against, 2 abstain

TAMU requested that PCOM develop a first-order ranking of SWIR and Red Sea alternatives at this meeting so that ship planning may begin. In responding to this request, PCOM passed the following motion, proposed by Robinson and seconded by Honnorez:

PCOM Motion: If Southwest Indian Ridge and the Red Sea programs are eliminated from Indian Ocean planning activities, the next priority for the first leg in the Indian Ocean will be the Neogene Package.

Vote: 14 for, 1 against, 0 abstain

588 LONG-TERM PLANNING (PACIFIC OCEAN 1989-)

Overall Time in the Pacific Ocean

It was suggested that the time of circumnavigation, as suggested by COSOD, imposes an unnecessary contraint that should be removed. Thisaction, it was further suggested, would allow the scientific objectivesto constrain the amount of time in the area. It was the consensus ofthe PCOM that the panels (WPAC, CEPAC and

thematics) should develop 3lists of objectives/themes/priorities (short range, medium range andlong range) developed in 1, 1 1/2 and 2 year time frames forthe Pacific. It was agreed that it is essential for the chairmen of the thematic panels, the Pacific regional panels, SSP and DMP to meet prior to the May PCOM to liaise on Pacific planning problems. Discussion was closed by the following motion, proposed by Hayes and seconded by Beiersdorf:

PCOM Motion: WPAC, CEPAC, SOP and the thematic panels should develop a scientific program for the Pacific Ocean under the initial time constraint of a total of three years for this entire region with the time being partitioned approximately equally between the western Pacific (the general area mandated to WPAC) and the remainder of the Pacific (including the Bering Sea and far Southern Pacific). This time constraint and its division are tentative and subject to revision in consideration of subsequent scientific arguments from the panels.

Vote: 14 for, 1 against, 0 abstain

589 PANEL MEMBERSHIP

Panel Rotations

It was the consensus of PCOM that the panels should propose a rotation scheme for membership (noting that non-US members are not required to adhere to the rotation) and should suggest possible replacements and additions to ensure as complete a disciplinary cover as possible. PCOM will decide on rotations and new membership at its May meeting following the above input from the panels.

Panel Chairmanships

PCOM agreed to the following names:

SOHP- R. Garrison (UC-Santa Cruz)
L. Mayer (Dalhousie Univ.)

LITHP- D. Walker (L-DGO)
A. Saunders (Leicester Univ.)
J. Sinton- (Hawaii)
R. Detrick- (URI)
K. Macdonald- (UCSB)

The PCOM Chairman will appoint new chairmen from the above lists according to availability and in discussion with appropriate PCOM members.

PCOM Liaisons

The following changes in PCOM/panels liaisons were made:

TECP- add P.Robinson (Canada)

SSP- N. Pisias (OSU) replaces P. Robinson
T. Francis (UK) replaces H. Beiersdorf

TEDCOM- T. Francis replaces M. Kastner (SIO)

Panel Chairmen's Meeting

PCOM agreed to appoint D. Rea (CEPAC) as chairman of this group. It was agreed that the meeting would be held at OSU prior to the next PCOM meeting. Subjects suggested for the agenda were: global review of thematic objectives of ODP; panel-panel and panel-PCOM communications and improvements to working methods; resolution of Indian Ocean planning conflicts; identification of major objectives of Pacific Ocean drilling; input of geochemical advice; site survey and downhole measurements input.

590 ANY OTHER BUSINESS

Rotation of the JOIDES Office

PCOM was informed that the JOIDES Office will rotate to Oregon State University as of 31 September 1986 and that OSU will be succeeded, in 1988, by the Hawaii Inst. of Geophysics. The non-US members of JOIDES were asked to submit recommendations (with final decisions made by the 5 non-US EXCOM members) for the non-US administrative position in the JOIDES office. With this rotation, D. Caldwell will succeed J. Knauss as the EXCOM chairman and N. Pisias will succeed R. Larson as the PCOM Chairman.

Meeting Schedule

28-30 May 1986 at L-DGO, Palisades, N.Y.

11-15 August 1986 Corner Brook, Newfoundland, Canada

PCOM Chairman Absence in March-April

R. Larson informed the PCOM that he would be on a cruise to the Exmouth Plateau are during March-April 1986. In his absense, he proposed that H. Beiersdorf act as Chairman until 20 March 1986 and that J. Honnorez hold the post until 10 April 1986. Panel meeting approval and proposals will be handled by T. Mayer (JOIDES Office). The PCOM agreed to these arrangements.

Lead Time in Planning

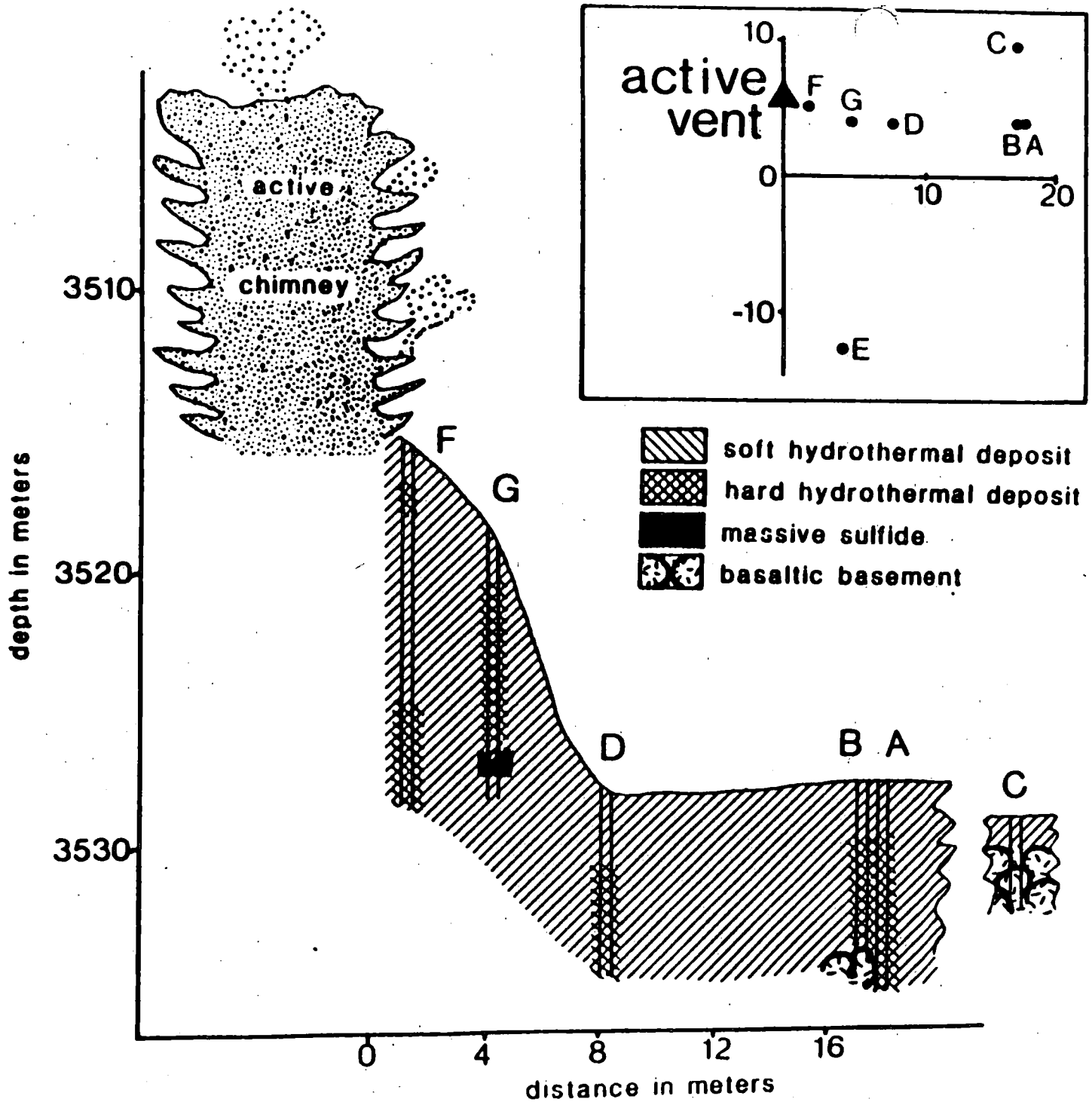
D. Heinrichs (NSF) emphasized that the PCOM should include 1-2 additional years of planning (beginning with the Western Pacific program) into its process at this stage in order to give more focused, concise planning advice to NSF, JOI and EXCOM to enable draft budgets to be prepared. During discussion, H. Beiersdorf expressed his strong dissatisfaction with the initial phases of Indian Ocean planning. R. Larson indicated that Western Pacific planning may be as difficult as that for the Indian Ocean Program but he was confident that a general drilling program will be developed by August 1986.

In closing discussion, the PCOM asked how it could interact with JOI and NSF in order to have some input into fund allocations and what the deadline was for making constructive suggestions to the program plan for the upcoming year. Heinrichs responded by indicating that in the short term, suggestions could be made at the May 1986 PCOM meeting and that in the long term, suggestions can be made by October of any given year. Heinrichs closed by emphasizing that a program for the western Pacific must be developed by October 1986.

COSOD-2

In responding to a mandate by the EXCOM, given at its Jan. 1986 meeting, the PCOM prepared a draft Terms of Reference for a COSOD-2meeting (APPENDIX S). Offers to host the meeting were made by T. Francis (for Oxford or Cambridge, England) and by H. Beiersdorf and J-P. Cadet (for Strasbourg, France). The location will be finalized at the May PCOM meeting. The steering committee will consist of 12 members with one member from each of the non-US members plus a chairman. The non-US members were encouraged to confer with their national committees for nominations for membership and US members were asked to consider nominations. In addition USSAC will be asked to serve as a US nominating committee. PCOM will make the final selections. It was suggested that the membership be a mixture of people within and outside of ODP. However, a majority of the membership will consist of those people familiar with ODP. Discussion of the Chairmanship was deferred until the May PCOM. The meeting will be funded by comingled funds with travel to be a national responsibility.

The PCOM thanked M. Kastner for hosting the meeting and arranging the field trip. J. Winterer was thanked for acting as the field guide. W. Nierenberg was thanked for hosting a reception for the PCOM and R. Anderson, M. Zoback and R. Jarrard (Wireline Services Contractor) were thanked for the logging seminar. The meeting was adjourned.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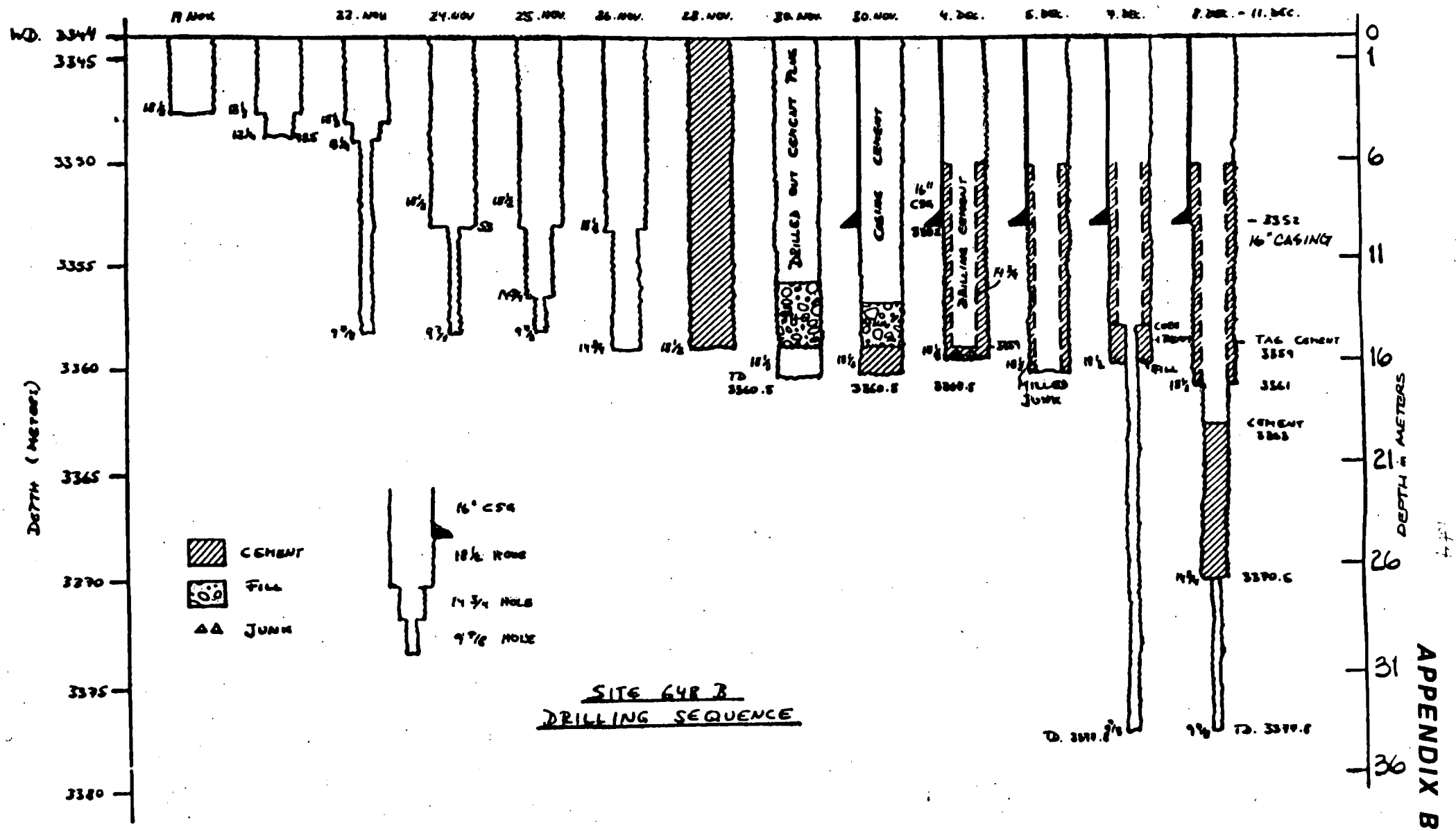
chimney
3510
3520
3530
depth in meters
soft hydrothermal deposit
hard hydrothermal deposit
massive sulfide
basaltic basement
0
4
8
12
16
distance in meters

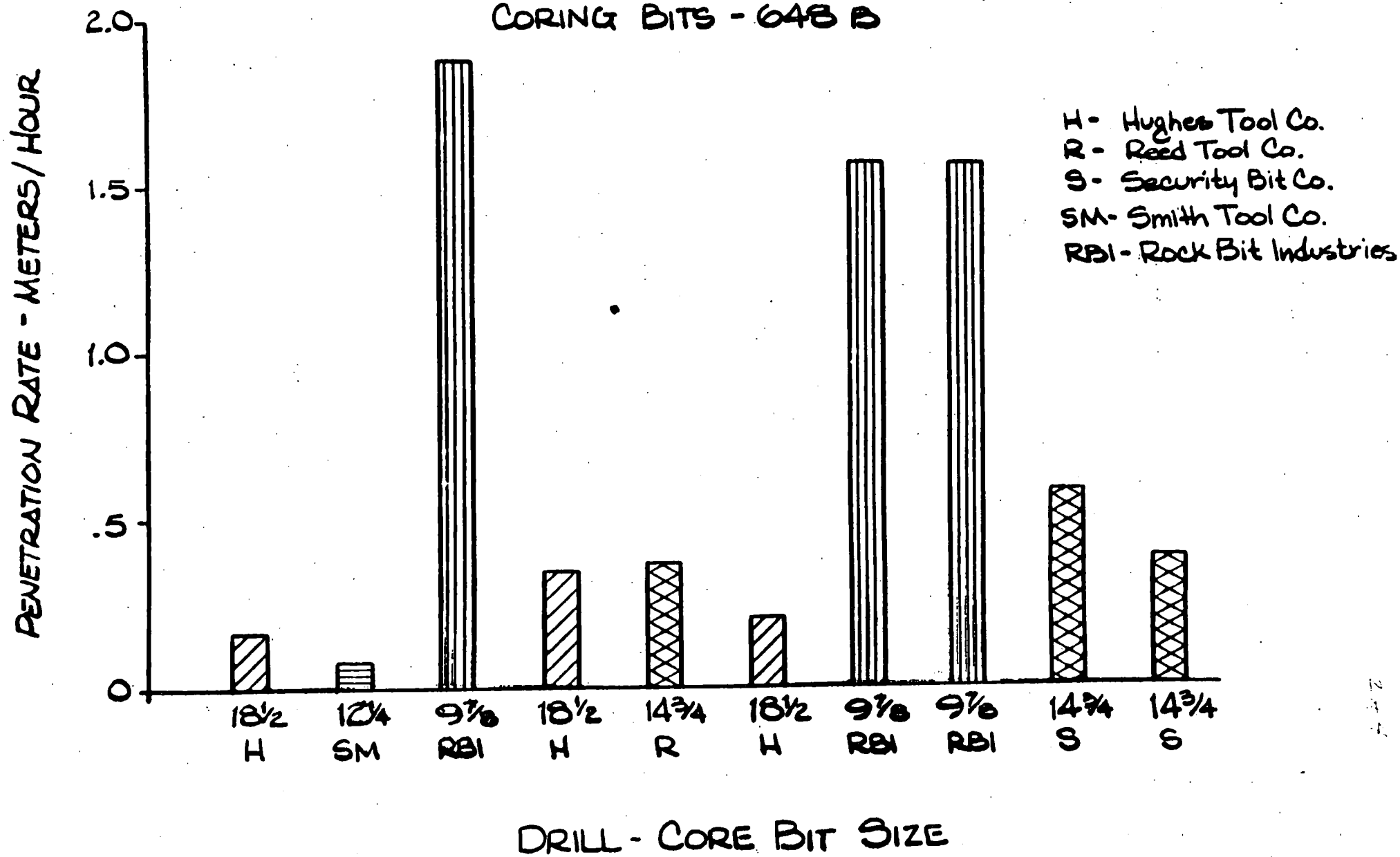
APPENDIX A



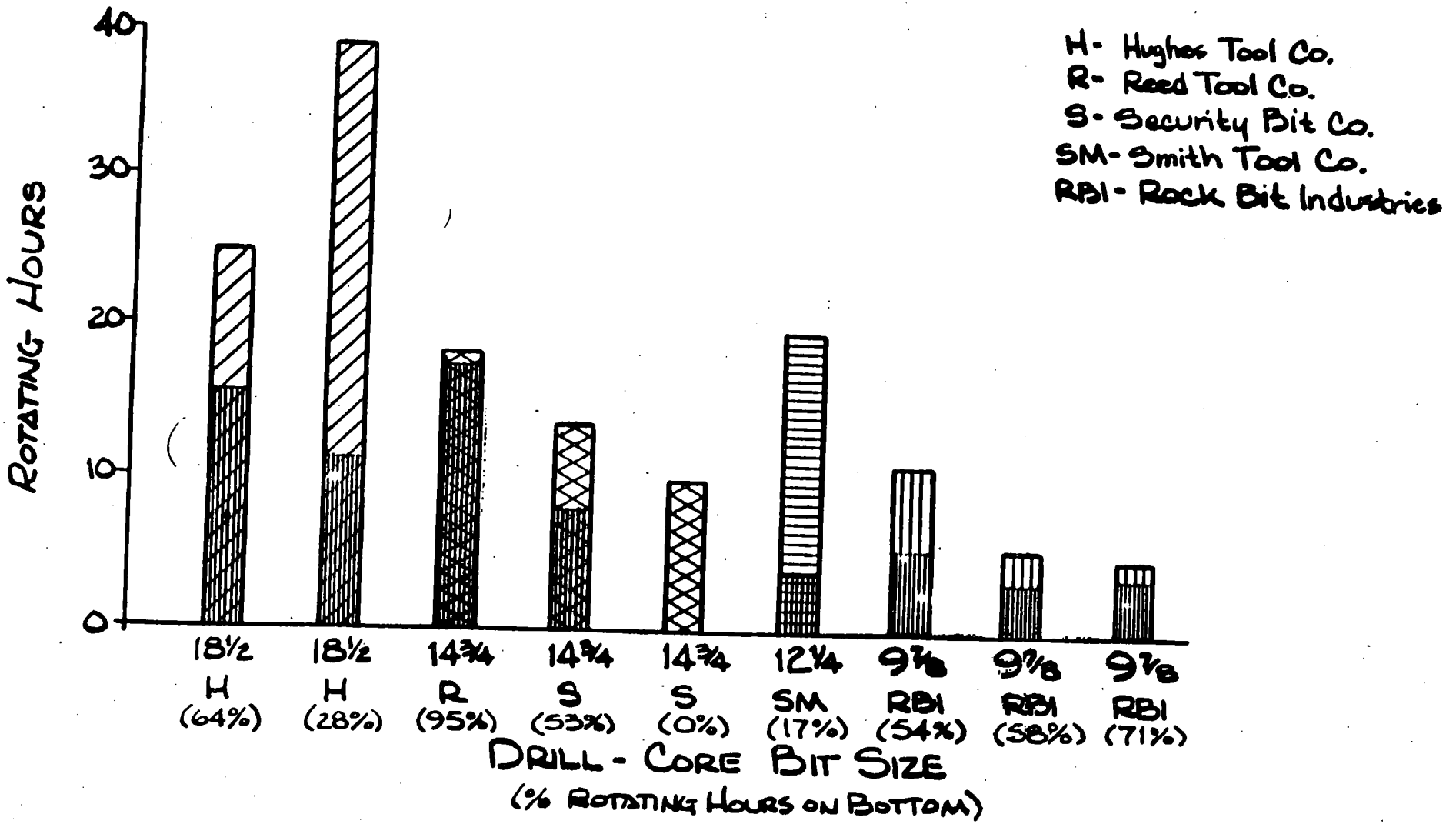
SITE 641B
DRILLING SEQUENCE

APPENDIX B

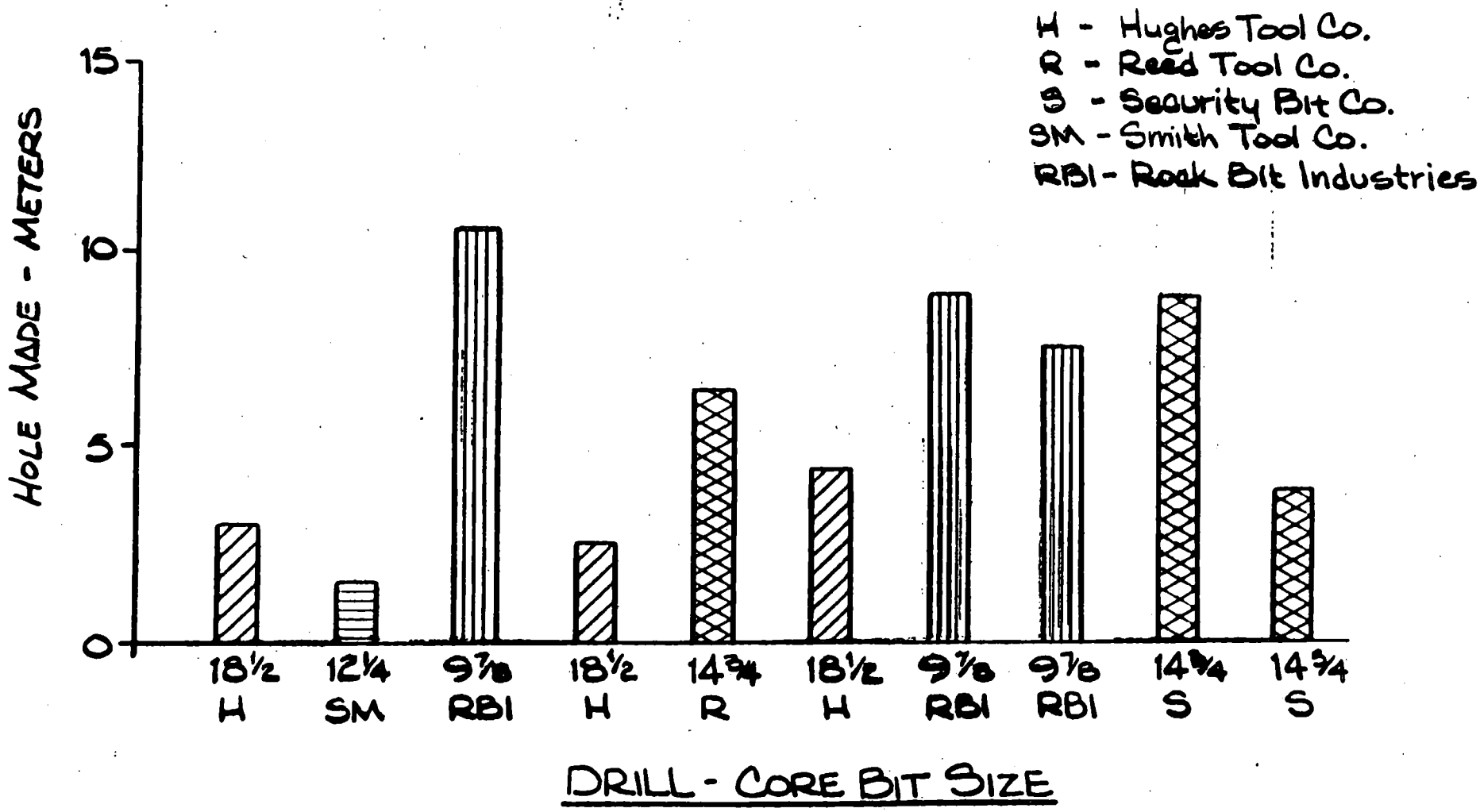
PENETRATION RATE FOR DRILLING CORING BITS - 648 B



ROTATING HOURS FOR DRILLING CORE BITS - 648 B



HOLE MADE FOR DRILLING
CORING BITS - 648 B

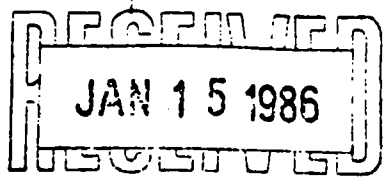


1986
ODP OPERATIONS SCHEDULE
OCEAN DRILLING PROGRAM
Legs 107-112

LEG	DEPARTS LOCATION	DATE	ARRIVES AT DESTINATION	DATE	IN PORT
107	Malaga, Spain	1 Jan 1986	Marseilles, France	18 Feb	Feb 18-22
108	Marseilles, France	23 Feb	Dakar, Senegal	21 April	April 21-25
109	Dakar, Senegal	26 April	Barbados, West Indies	22 June	June 22-26
110	Barbados, West Indies	27 June	Barbados, West Indies	17 Aug	Aug 17-18
111T	Barbados, West Indies	19 Aug	Panama, Panama	26 Aug	Aug 26-30
111	Panama, Panama	31 Aug	Callao, Peru	24 Oct	Oct 24-28
112	Callao, Peru	29 Oct	Callao, Peru	17 Dec	Dec 17-19
112T	Callao, Peru	20 Dec	Punta Arenas, Chile	30 Dec	Dec 30-31

Revised 1/17/86
LEG

86/3



University of Hawaii at Manoa
Hawaii Institute of Geophysics
2525 Correa Road
Honolulu, Hawaii 96822

January 10, 1986

MEMORANDUM

TO: Roger Larson, Chairman, PCOM

FM: Donald M. Hussong DMH

RE: Report on meeting of Ad Hoc committee on ODP downhole packer capabilities and plans

A group consisting of Keir Becker, Mike Storms, Dave Huey, Glenn Foss, Dan Moos (substituting for Roger Anderson) and I met at the DSDP offices in La Jolla on 15 November 1985. At the request of PCOM we discussed the following topics:

1) the TAM packer that Keir Becker is developing for Leg 109 and later,

2) the TAM packer to be built with design input from ODP engineers for Leg 110 and later, and

3) the wireline packer under consideration by the L-DGO logging group.

The results of our discussion can be summarized as follows:

1) Becker packer. Kier Becker's packer, which is being supported by funding outside the ODP project, is a straddle packer (2 seals that can be separated by a chosen amount of drill string) that was tried on Leg 102 but failed due to a minor flaw. This packer is being modified at TAM (the manufacturer) and Becker is confident it will be ready and tested for Legs 109, 110, 111, and subsequent legs [final testing is scheduled for the week of 13 January 1986, so may already be complete]. Becker is personally prepared to ride the drillship to provide support for its use on Legs 109, 110, and/or 111.

Becker's packer cannot be in the drill string during drilling, and as presently planned must be placed above the bumper subs if used in drilling because it cannot take a substantial compressive load. There is some hope that with good heave compensation this packer could be placed just above the bit in the future. Logging and coring can be done through this packer, although until it can rotated it must be used with a reentry cone.

It should be possible to modify this packer so that a pipe connecting the two inflatable seals that is now external to the drill pipe between the packer subs is replaced by a modified pipe with an internal vent. This modification should allow rotation. The question would then remain if this packer can be placed below the bumper subs during drilling. The packer might be strengthened by using a larger mandrel and top control sub. There are presently no plans to make the modifications to allow rotation or location near the drill bit.

The Becker packer has the advantages of being able to straddle a formation and also of not applying pressure to the drill string when the straddled area is pressurized.

Kuster pressure recorders monitor differences in pressure between the two sides of both of Becker's packers.

Becker presently has the necessary funding to buy a flow meter to fit in the drill string on the packer sub so that the rate of flow in or out of the packer can be measured.

This packer is presently able to operate in temperatures up to 100-125°C, and seals are available that can readily convert it for operation at temperatures up to 200°C with available funds.

2) ODP/TAM packer. TAM is also building a new single-element packer for ODP that will be ready for use on Leg 110. This packer can be rotated and fits in the string as close as 10 m above the bit. It is clean inside, so coring and logging can occur through it. This packer presently has an 8.5 inch diameter, so is wider than the rest of drill string (8.25 inches above the bit). ODP engineers at TAMU are presently investigating reducing the outside diameter of this tool so that it will not be a "knuckle" in the drill string.

Cost of the ODP/TAM packer will be approximately $25,000 for the first tool and approximately $15,000 for later duplicates. There will be at least one of these ODP/TAM packers available for Leg 110; they hope that if funds are available two of these tools will be available for 110.

Becker will provide a Kuster pressure recorder for use with the ODP/TAM tool when needed as long as he has one available.

3) Wireline packer. At the time of our meeting the development of this tool was on hold. The original plan had been that AMOCO was to build a prototype of their design, test it, and then help the ODP logging group to modify a slim-line version for ODP use. AMOCO has lost interest in building their prototype because of oil patch economics.

The design concept is to have a wireline lowered system that can inflate with a downhole electric motor/pump to seal a 12 (plus) inch drill hole. The tool would be a straddle packer that has four large sample chambers that are filled with fluid sucked from the formation between the packers (this would constitute a permeability test). The tool requires

downhole real time sensors to indicate when water flushing through the tool is actually from the formation. This is a complex tool, but, the ODP Wireline Services Group at L-DGO has $140K set aside with Mark Zoback at Stanford for final design, construction, and testing of such a device. This development work has not been pursued because it is the understanding of the L-DGO logging group that PCOM considers actual building of a tool to be outside their charge. It seemed to the participants at this meeting that $140,000 should be adequate for the L-DGO logging group and Zoback to build, with a consultant or sub-contractor where necessary, a wireline packer on the AMOCO concept that could be available in one year. Moos will check on the details of what directives PCOM should give the Wireline Services Group at L-DGO that would make them comfortable to proceed with the construction of their own tool.

There was to be a meeting with AMOCO in Tulsa just before Christmas with the L-DGO logging group, TAMU engineers, and TAM engineers to discuss the possibility of AMOCO releasing some of their design plans to ODP and TAM so that they could proceed with building some form of wireline packer. If successful, the ODP funding now in reserve with Zoback could go to Tam so that they could build (possibly with the addition of supplementary funds of their own) a wireline packer for ODP. It is the goal of the L-DGO group that 3 tools are eventually built to provide necessary backup for operational use. If these planned discussions with TAM are unsuccessful, the next steps would have to be to issue RFP's for wireline packer development, or go to other companies (potentially including foreign companies) with plans similar to those presented to TAM, or to give further consideration to having a tool built at L-DGO.

[Subsequent to initial preparation of this meeting report, preliminary agreements have been reached by TAM, ODP engineers, the L-DGO logging group, and (I presume) AMOCO, to build a compromise version of a wireline packer which will fit on the end of the drill string and be operated using the logging wire and a side-wall sampling device. This tool will apparently perform many of the functions desired from a wireline packer, but will require a pipe trip (and thus a re-entry cone) to operate.]

It is clear that PCOM must decide what kinds of packers are desired in the near future, and whether or not a wireline packer that still requires a pipe trip satisfactory and worth development. Keir Becker is preparing a more detailed description of his packer tool, as well as other options, for presentation to the PCOM at the January 1986 meeting.

Other points that came up at the meeting that may be pertinent:

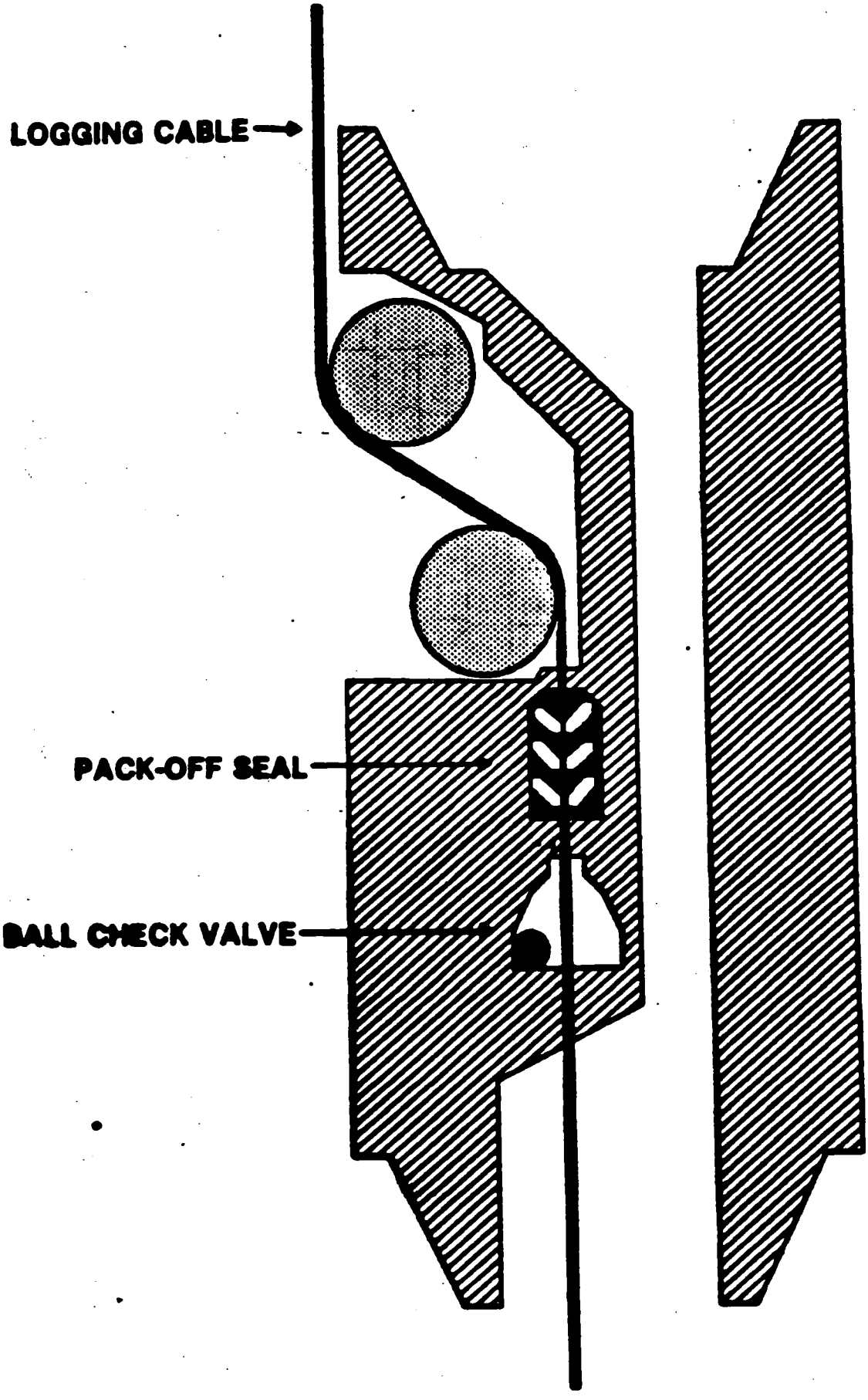
Ross Barnes has outside funds to build a pore water sample for use with an APC. He may be interested in modifications to use this device with larger volume sampling chambers in a packer.

Ures Gieseke (SIO) has an outside proposal (not yet funded?) to put a string of large (~1 liter) sample bottles down a hole on Leg 110.

The old Lynes fluid sample bottles are still around and should be okay to adapt to sample in a TAM packer. The rest of the Lynes packer is considered useless and is to be surplussed.

The pressure core barrel can be refurbished and be ready for use by Leg 112 if the ODP engineers are so directed. They should be informed to do this by the time of the January PCOM to expedite their scheduling; if they are not informed by the time of the May PCOM it will be too late.

SIDE ENTRY SUB



DEC 2 3 1985
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APPENDIX F

1. MARK Drilling

To begin on a positive note, it is clear that this was the highlight of the year. The exceptionally high quality site survey work in the MARK area, the successful planning for this leg capped by the trouble-free first bare rock guidebase emplacement were all a promising start to this first high priority lithosphere leg. The slow drilling problems are still being assessed as this is being written and cannot be commented upon here.

2. EPR Drilling

EPR drilling site should have three characteristics: seismically defined magma chamber, full photo coverage, and active hydrothermal activity but locate first site in downflow zone in order to minimize high temperature problems. Consensus was 'French' 13?N area probably best meets these requirements. However, limitation of only two guidebases made EPR drilling questionable and this awaits planning decisions on 109 and review of 106 before progress can be made. Strong panel support exists for 'having a go' at hydrothermal drilling so technical difficulties can be assessed early in the program.

3. 504B

The Panel considers the deepening of 504B to be an essential part of the first two years of drilling. To emphasize the priority placed on this a formal drilling proposal was submitted on behalf of the Panel.

4. Bare Rock Guidebases

The lack of funds for more than two guidebases was a dismaying occurrence: that planning for such a high priority drilling target should be dominated by funding concerns so early in the program was a source of considerable concern to Panel Members.

5. Indian Ocean

Many active discussions and careful proposal reviews led to setting our first four Indian Ocean priorities as: 1. Red Sea, 2. 90E Ridge, 3. Aus-Ant. Discordance, and 4. SW Indian Ridge fracture zone. However, again it must be stated that these are LITHP's priorities only WITHIN the Indian Ocean. The Panel considers back-arc spreading center drilling in the Western Pacific to be a higher priority than all of the above projects.

6. Western Pacific

Planning for this is in early stages but got off to an excellent start with Jim Hawkin's successful workshop. Proposals totalling almost six inches of double-sided xeroxes have recently been mailed to Panel Members: some concern exists as to whether such a volume of text can be reviewed adequately given existing procedures.

7. Lithosphere Drilling within ODP

Planning is sufficiently well-advanced that it seems clear that LITHP's number one objective - crustal generation and magma processes - will receive only three legs worth of effort during the first four years of the drilling program. The Panel repeatedly expresses its frustration at this; and at its perception that ODP is not adopting the philosophies of COSOD; and at its concerns that the valuable and very limited drill ship resource is being used as a globally wandering miscellaneous problem solver.

86/38

EXECUTIVE SUMMARY
JOIDES SEDIMENTS AND OCEAN HISTORY PANEL ACTIVITIES, 1985

APPENDIX G

1) MEETINGS

The SOHP met twice in 1985, the first in Cambridge, U.K., Feb. 21-23 and the second at LDGO, Palisades, N.Y., July 25-26; we met a third time on Jan.6-7, 1986 at SIO, La Jolla, CA.

2) PANEL MEMBERSHIP

A) In the event that new member countries are not added, we recommended the following people to serve as members of SOHP, filling critical subject areas left vacant as the result of the withdrawal of our ESF and UK colleagues:

1.) R.E. Garrison, UCSC; carbonate and silica diagenesis, sedimentary processes. (alternate: Pierre Biscaye, LDGO: clay mineralogy, sedimentary processes)

2.) John Barron (USGS; diatom biostratigraphy--Pacific paleoceanography) (alternate: R.C. Thunell, Univ. South Carolina; foraminiferal biostrat.-paleoceanography)

B) Assuming that JOIDES panel structure remains the same, we have also recommended formal liaison between SOHP and several regional panels as follows (liaison was lost due to several resignations):

1) P. Meyers to ARP (replaces Sarg)
2) R. Sarg to WPAC (replaces Shackleton)
3) L. Tauxe wants to be replaced on IOP (replace with L. Mayer)

C) M. Arthur has resigned as SOHP Chairperson; SOHP nominates R.E. Garrison for the new Chairperson (with Wolfgang H. Berger and Larry Mayer as alternates).

3) TECHNOLOGICAL DEVELOPMENTS

We continue to recommend as highest priority (approximate order of priority) the following technological improvements and/or acquisition and deployment of equipment already available for ODP:

A) TECHNOLOGY

1. Heave compensation for the APC system (developed and tested on ODP Leg 105).
2. Drastic need for technology to avoid or moderate unstable hole conditions and to improve ability to drill and recover fractured rock; should include mud technology for conditioning holes--necessary for deep penetration and drilling in accretionary prisms, etc.
3. A core-catcher system that would improve recovery in friable formations such as sand (recognizing that drilling in such formations is also a challenge).
4. Improved bits and drilling techniques that would allow better penetration and recovery in sequences characterized by pronounced lithologic contrasts (e.g., chert-chalk sequences that will be encountered frequently in the Pacific program).
5. Improved core liners (shattered or twisted during APC coring; is this quality control problem?)
6. Further improvement and routine availability of pressure core-barrel and in situ pore-water sampler to take advantage of unanticipated geochemical anomalies (gas-hydrates, salinity-alkalinity gradients, etc.).

B) CORE HANDLING AND ARCHIVING

1. Improve color core photography, including routine deployment of continuous strip photography (using Tom Chase system as deployed on DSDP Leg 64).
2. Digital color record acquisition for signal processing and permanent archive.

4) LONG-RANGE PLANS--RISER TARGETS

We were asked to consider our high-priority plans for riser drilling in 1992 or later should the riser system be deployed (assuming 1800m depth limitation); these are:

1. Penetration, dating and characterization of major evaporite sequences, including the upper Miocene of the Mediterranean, the Miocene of the Red Sea and the lower Cretaceous of the South Atlantic--these are important for global geochemical mass balances, paleoclimate, hydrocarbon source bed and other considerations.
2. Penetration and recovery of gas hydrates and other gassy sediments such as in the Sea of Japan, Black Sea, Sea of Okhotsk and Cariaco Trench.
3. Penetration of continental slope structures and sequences, such as in the Niger Delta, the Gulf of Mexico, and offshore Northwest Africa.

4. Deeper riser drilling capability would significantly expand both the number of riser targets and their scientific attractiveness (3000m water depth).

5) MAJOR THEMES

SOHP continued to endorse and develop scientific ocean drilling for the first 3 years of ODP designed around the following major, high-priority themes:

1. Neogene-Quaternary high-resolution sealevel, paleoclimatic, bio-magneto-chemostratigraphic records, global oceanic fluxes (carbonate, organic carbon, etc.), and land-sea interactions (Norwegian Sea; Baffin Bay-Labrador Sea; Northwest Africa; western Mediterranean; Peru margin; Weddell Sea and southern South Atlantic traverse; Kerguelan Plateau; Somalia and Oman margin; Mascarene-Chagos-Laccadive).

2. Cretaceous-Neogene high-latitude paleoceanography-paleoclimatology and biotic evolution (Norwegian Sea; Baffin Bay-Labrador Sea; Weddell Sea and southern South Atlantic; Kerguelan Plateau-Amery margin).

3. Mesozoic-Cenozoic sea level changes, seismic stratigraphy, major global unconformities and global mass balances-- deep stratigraphic tests (Moroccan Basin; Somali Basin; Exmouth-Argo Abyssal Plain). **This is one of our major themes for the entire PROGRAM!** Detailed proposal for additional sites is available.

6) SPECIFIC RECOMMENDATIONS / PRIORITIZATION OF REGIONAL DRILLING TARGETS

SOHP ranked individual sites within PCOM-approved drilling legs of major interest to SOHP and prioritized specific legs within regional drilling programs. The specific prioritizations and rationale can be found in our minutes; only a listing is supplied here*:

A. Baffin Bay-Labrador Sea (Leg 105): 1.)BB-3B, 2.)LA-5 or 5A, 3.)LA-9, 4.)LA-2A

B. Mediterranean (Leg 107): 1.)TYR 2, 2.)TYR 3A.(Recommend R. Thunell, M. Cita, K. Kastens, J. Mascle as co-chiefs)

C. Northwest Africa (Leg 108): 1.)139R, 2.)MAU-6, 3.)MAU-5, 4.)MAU-4, 5.)SLR-1, 6.)EQ-3, 7.)EQ-4A, 8.)EQ-5, 9.)EQ-6, 10.)EQ-9, 11.)EQ-7.(Recommend M. Sarnthein and W. Ruddiman as co-chiefs).

D. Hole 504B (revisited; Leg 111?): urge double-APC coring of pelagic section--beautiful eastern Pacific late Neogene-Quaternary sequence.

E. Peru Margin (Leg 112): Strongly endorse 5-site depth and lateral transect of margin in Lima Basin for fluctuations in climate, productivity, oxygen-minimum zone, accumulation rates, and study of dolomite and phosphorite problems.(Recommend E. Suess, L. Kulm as co-chiefs).

F. Weddell Sea (Leg 113): 1.)W1, 2.)W2, 3.)W4, 4.)W5, 5.)W10, 6.)W6, 7.)W7, 8.)W8. (Recommend J. Kennett and D. Futterer as co-chiefs).

G. South Atlantic Traverse (Leg 114--ranks second priority to W1,W2,W4,W5 in Weddell Sea and S. Kerguelan-Amery objectives):(ranking sites in order SA-8, SA-2, SA-3, SA-5W).

INDIAN OCEAN PROGRAM

1. *Southern Kerguelan Plateau-Amery margin* (high latitude paleoclimates-paleoceanography with Amery margin highest priority)(4 sites Prydz Bay; K1-4 and KHP7,12, S.Kerguel. Plateau)

2. *Oman margin-Owen Ridge-Somali margin-Indus Cone* (with Oman-Owen Ridge highest priority)(ca. 5 sites, monsoon paleoclimate-upwelling-human evolution-Himalaya tectonics)

3. *Somali Basin deep stratigraphic test* (near anomaly M-25; 1 site)--part of deep stratigraphic tests program (ca. 2500m-multiple objectives incl.Tethys connections, black shales, African uplift)

4. *Northern Kerguelan Plateau-southeast Indian Ridge transect* (3 sites for Paleogene-Neogene paleoclimate transect--high latitude carbonate record: KHP3, 1, S8B)

5. *Exmouth Plateau-Argo Abyssal Plain* (passive margin sequence to oldest Jurassic crust)(2 sites; EP-5 or possibly EP-2 and AAP-1; seismic strat. important, conjugate to Somali deep hole)

6. *Mascarene- Chagos- Laccadive* (latitudinal-paleodepth transect)(6-8 sites)

(*Red Sea*)--if ship goes there, recommend APC coring on flanks of ridge for hydrothermal sediments and site for paleoenvironment of sapropel sequence and evaporite-normal marine sediment sequence. Recommend waiting for Red Sea with riser/BOP and high-T tools.

"WESTERN" PACIFIC PROGRAM

SOHP targets/objectives of high interest are (tentative ranking): 1.) Great Barrier Reef-Queensland Plateau transect, 2.)Japan Sea (Yamato Rise sites 1 and 3, Toyama Fan), 3.)Bonin transect (Sites C-F),4.)Sulu Sea (inner basin), 5.)S. China Sea (old crust)

APPENDIX H

UNIVERSITY OF WASHINGTON
SEATTLE, WASHINGTON 98195

RECEIVED
DEC 2 1985

Department of Geological Sciences, AJ-20

November 26, 1985

M E M O R A N D U M

TO: PCOM

FROM: Darrel S. Cowan
Chairman, TECP

SUBJECT: Executive Summary of 1985 Activities of the Tectonics Panel

1) CHAIRMANSHIP

I stood in for Jeremy Leggett (UK) at our March meeting and was formally named Chairman in April.

2) MARCH MEETING AT LAMONT

Most of the meeting was devoted to a review, discussion, and ranking of drilling proposals in the Indian Ocean and Southern Oceans. Our procedures were largely those established at our September 1984 meeting in London. We had divided the oceans geographically and assigned a watchdog to each region. In March, each watchdog systematically summarized the thematic problems in his region and how extant drilling proposals would address them. We also heard a report from the chairman of the Red Sea Working Group (J. Cochran). We then prioritized IO and SO targets using the voting system we devised in London: 0 (lowest) to 10 (highest). Our top four priorities were: Makran accretionary prism and slope basins (1); Indian Ocean intraplate deformation and fluid flow (2); SW Indian Ocean Ridge fracture zone (tie for 3); Bengal-Indus fans (tie for 3).

3) OCTOBER MEETING AT OCEAN RESEARCH INSTITUTE, TOKYO

a) Leg 110 Barbados Ridge: We recommended expending every effort to drill through the decollement at LAF-1 and then proceeding upslope to drill LAF-2 and 3 if time permits.

b) Indian Ocean drilling: We reversed our March ranking and chose SW Indian Ridge fracture zone over Makran as our top priority on the menu for May-June 1987. We also insisted that basement be sampled on all parts (north, central, and south) of the Kerguelen plateau.

c) Western Pacific: Prior to the meeting, I distributed copies of all existing proposals to each panelist. In Tokyo, the watchdogs we appointed in March reviewed the drilling proposals for each region. We began this review in preparation for a formal ranking in Spring 1986 along the lines of our March 1985 prioritization of Indian Ocean proposals. However, we decided instead to identify those prime global thematic problems that can best be studied in the Western Pacific. In the future, we will critically evaluate the proposals that address these problems, and at our February 1986 meeting we will prepare specific drilling plans focused on our thematic objectives: i) The evolution of arcs and fore-arc basement; ii) The origin of back-arc basins; and iii) The tectonics of collisions.

4) TECP PHILOSOPHY

We have evolved from a reactive panel that simply ranked all proposals in a region according to their thematic content, to one that will independently advocate a Western Pacific drilling program focused on what we view as the key thematic problems in the region.

DSC/scb

APPENDIX I

A R P 1985 SUMMARY

Two meetings were organized :

1/ 25-28 March 1985 Austin Texas (USA)
2/ 18-20 September 1985 Villefranche (France)

1 - DISCUSSIONS ON THE PRESENT ATLANTIC PROGRAM

Most of the time was still devoted to discussions on drilling sites of Atlantic legs.

Were particularly discussed the leg 103 Galicia sites, the leg 107 Tyrrhenian sites, the leg 108 W.Africa sites and leg 110 Barbados sites.

Main recommendations are recalled in the annex.

2 - DISCUSSION ON FUTURE DRILLING IN THE ATLANTIC

Taking in account the time necessary for regional and site specific geophysical studies, the panel agrees that a new program must be already prepared and that workshops are a good mean to prepare this future and involve a large community.

The first JOI workshop proposed by ARP for Spring 1986 will be devoted to the South Atlantic, a somewhat forgotten part of the Atlantic in terms of scientific drilling.

Co-convenors should be Austin, Hayes and Sibuet.

An other workshop on the Artic Ocean will be proposed for 1987.

3 - ARP MEMBERSHIP

Many seats were vacant in particular because UK and ESF members were no more present

Following names were proposed to fill some of the vacant seats.

1. Petrology : Karson/Honnorez/Fox
2. Sedimentology : Vail
3. Sedimentology :Bernoulli/Enos/Normark/Mutti/Korvsmann.

4 - ARP CHAIRMANSHIP

L. MONTADERT would resign as chairman, but still stay in the Panel.

AUSTIN or TUCHOLKE were proposed as next chairman.

L. MONTADERT

Le 6 Janvier 1986

Leg 103 - Galicia

In conclusion, ARP reiterates its recommendations on leg 103 drilling that site 4b be drilled approximately one half to one kilometer east of its location in "Scientific prospectus N°3"; this will assure that the oldest and most complete section of synrift sediments which lap westward onto the pre-rift sediments, will be drilled. If the complete pre-rift section and basement cannot be penetrated at this site, then these objectives should be attacked at site 4a.

Leg 105 - Labrador Sea

Recommendations

ARP believes that Neogene and Paleogene paleoceanographic records should be major objectives at the leg 106 Baffin Bay and Labrador sea sites. Furthermore, the Baffin Bay site is sufficiently unique that, if conditions permit, time at this site should be extended and drilling should be continued as deep as possible even if this reduces time available for the Labrador Sea sites. Conversely, if weather precludes work in Baffin Bay, then drilling at Site LA5 should be done to basement to ensure that Neogene and Paleogene objectives are attained.

Yucatan basin

The panel emphasize again that Yucatan drilling must be a part of a suite of drillings in the Caribbean basins. An up to date proposal must be prepared with the help of Klitgord.

Leg 107 - Tyrrhenian Sea :

RECOMMENDATION

The ARP recommends unanimously the following order of priorities for leg 107 in the Tyrrhenian Sea:

	Estimated Drilling Time	Logging
Site 2	4.0 d	-0-
Site 1b (alt. 1a)	6.0 d	1.5 d
Site 3a (alt. 3a', then 4)	10.0 d	1.5 d
Site 5b	7.5 d	1.5 d
Site 7a	7.5 d	1.5 d
	35 d	6.0 d

Designated backups are sites 5A, 6 and 8, in that order.

At both sites 5b and 7a, ARP supports a scientific rationale calling for penetration of both the oldest observable sedimentary sequences and basement in order to estimate minimum oceanic (?) basement ages in both the Vavilov and Marsili basins.

At sites 1b (1a) and 3a (3a'/4), ARP recommends penetration to the base of the postulated synrift sequences discerned on both regional and site-specific MCS profiles

Leg 108 - W Africa

RECOMMENDATION

ARP has examined again the leg 108 proposed sites and their recently revised drilling estimates. Estimated times seen unrealisticaly short, and all eleven sites may not be achieved. Better times are needed in order to allow the sites to be prioritized in an order which will satisfy as many scientific objectives as possible. ARP recommends:

1. All sites be double-cored to maximize resolution and recovery, even if fewer sites can be occupied.
2. Logging not be done at any sites.
3. Better estimates of drilling times be provided by ODP
4. Sites be occupied in order of priority, rather than in order of geographic proximity, as much as feasible
5. Cochiefs should provide a prioritized ranking of all eleven sites to ARP and SOHP.

Leg 110 - Barbados

J. Mutter - VSP on LAF 1 would be desirable. ARP agreed on this suggestion

In conclusion the ARP position on leg 110 is the following: ARP reaffirms its previous position that ODP proceed with Barbados leg 110, sites LAF 1-6, regardless of the availability of advanced technology such as wireline packer or drill-in casing. ARP believes that the first priority objective is to penetrate the decollement to oceanic crust, but the value of the leg as proposed does not hinge on this target. ARP strongly advocates the scientific objectives of sites LAF 1-6 proposed by Mascle and Moore, also by Tectonics Panel and Caribbean Working Group, that embody a partial transect across the Lesser Antilles forearc to investigate the changes in physical properties and deformation rates and mechanisms in the progressive growth of an accretionary prism. ARP recommends immediate review of all proposed sites by Safety Panel and that HPF cores on Leg 110 be oriented.

MARK

Nevertheless ARP recommends that: if bare rock drilling does not work Kane FZ is still a priority leg.

Sub antarctic drilling

Recommendation

The ARP, after reviewing the subantarctic drilling plan submitted by SOHP to JOIDES, and while acknowledging its importance in providing potentially necessary "extra" time for Weddell Sea drilling, recommends that this drilling be considered within the broader perspective of South Atlantic drilling targets.

Unanimous.

Discussion on workshops

Within the next few years, ARP will promote workshops. The first one will be devoted to the South Atlantic.

Southern Ocean Panel Meeting - Woods Hole, September 19-20, 1985

Major points in minutes and updates:

1. Weddell Sea Leg: What is the status of the support icebreaker?

2. Subantarctic Leg: Site surveys are to be conducted by J. LaBrecque between July to September, 86, almost certainly from the Polar Duke. Will obtain SCS, 3.5 kHz, piston cores, and magnetics and gravity data.

3. East Antarctic-Southern Kerguelen Leg:

   a. Prydz Bay-East Antarctic Margin

      First order problems of climatic, sedimentologic and near-shore environmental history of East Antarctica especially in Paleogene and Mesozoic. Nature of vegetation? Climatic conditions? Any ice sheets? Major implications for global environmental interpretations.

      Shallow shelf sequences of dipping reflectors is about 2,500 m thick. Can be obtained by drilling 3 to 4 sections with stratigraphic overlap. Four sections of about 600 m penetration is preferable.

      Deep site (3,000 m; originally K-4) is problematic because of slumping. Also 900 m penetration is needed. Australians have other profiles that need examination. First order problem is the age of the continental stripping resulting from initiation of ice sheets.

   b. Southern Kerguelen

      Prioritization of sites is still preliminary because of planned site surveys by French investigators. K-11, K-5; K-12 and K-7. This provides a minimum of depth coverage, together with stratigraphic coverage, and basement penetration.

4. Northern Kerguelen: Three primary sites KH-1; KH-3A; KH-5A. Following drilling plan suggested:

   Drill KH-1 to 900 m into top of reflector I1, then move to KH-3 and do exploratory drilling to about 300-400 m to top of I1. Attempt re-entry, wash down and continue drilling to basement; drill KH-5. KH-4 remains as alternate basement site. SOP likes site S8B and suggests keeping it as an alternate site. Considerable colleague pressure has developed to drill this site.

   SOP's best estimate of drilling plus logging times for drilling KH-1; KH-3 and KH-5 are 57-68 days.

5. Because of the pressure of drilling time required for accomplishing the numerous objectives of the East Antarctic margin and Kerguelen region coupled with long transit times; SOP continues to strongly request crew change in Kerguelen Island.

6. Workshop on the South Pacific-Antarctic margin to be held in Gainesville, Florida on April 20-21, 1986. Cosponsored by SOP and CEPAC.

Indian Ocean Regional Panel
San Francisco
December 12-14, 1985

In lieu of a full set of minutes, the IOP submits to PCOM a set drilling program summaries for each of the programs proposed by IOP for Indian Ocean drilling in 1987-1988. These summaries are grouped as coherent programs rather than legs, although some constitute entire legs (or two legs in the case of the Kerguelen region). All but two of these programs exist as part of the present PCOM drilling plan for that time frame. Although we recognize that these programs can be combined and ordered into a variety of different schedules, we present the following as one workable drilling schedule for the Indian Ocean region.

Leg	Dates	Drilling Program	# Sites	Est.Site Days
115	1987 May/June	SWIR + Mascarene Fossil Ridge	4+3	42
116	July/Aug	Red Sea	10	50
117	Sept/Oct	Neogene Package	9	53
118	Nov/Dec	Kerguelen North	4	85
119	1988 Jan/Feb	Kerguelen South	5	
120	Mar/Apr	Mascarene Plateau +Intraplate Deform.	3+5	15+42
121	May/June	Ninetyeast + Broken Ridge	5+4	25+
122	July/Aug	Exmouth Plateau + Argo Basin	3+1	53
123	Sept/Oct	Otway Basin	4	49

APPENDIX L

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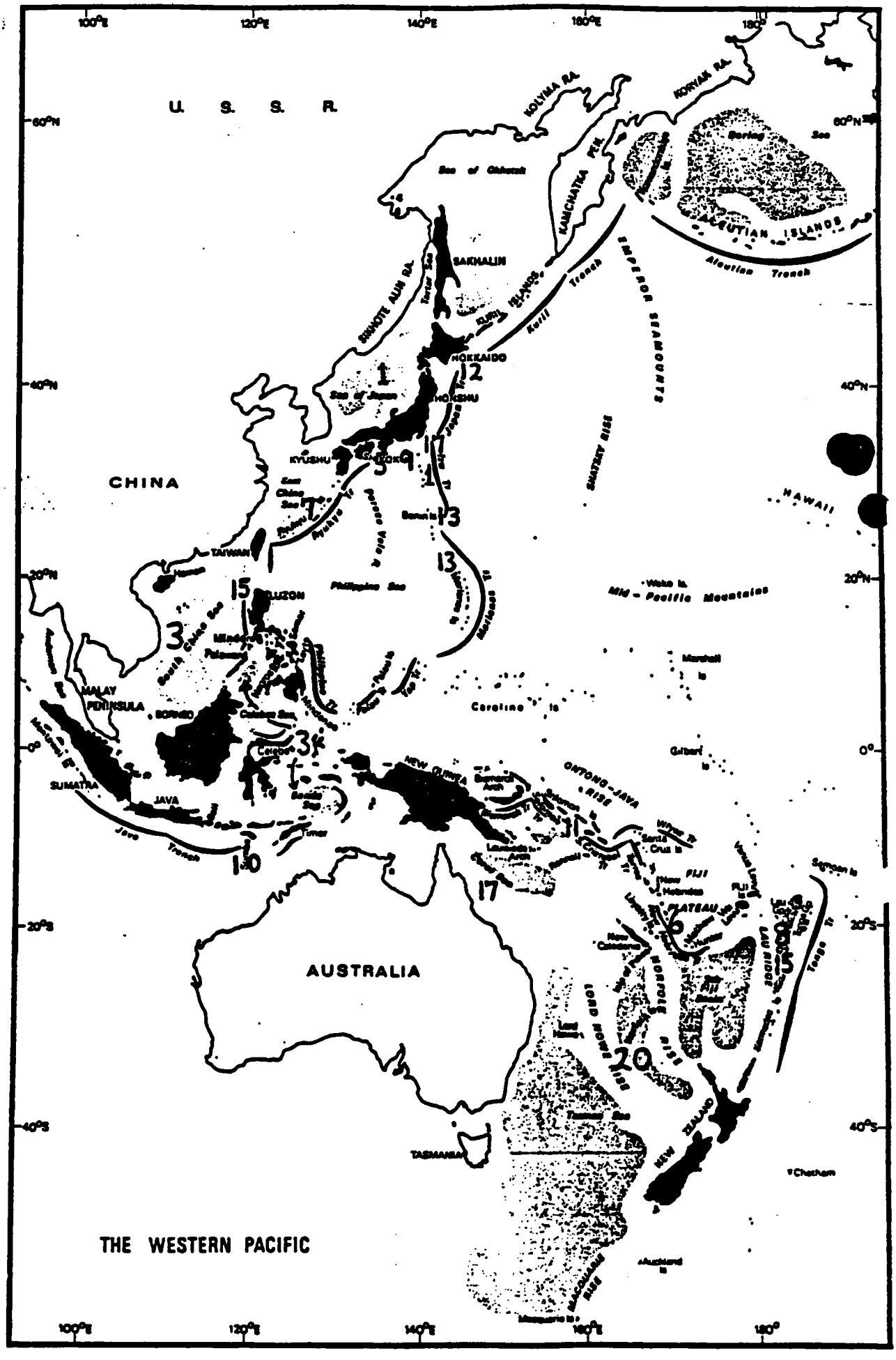
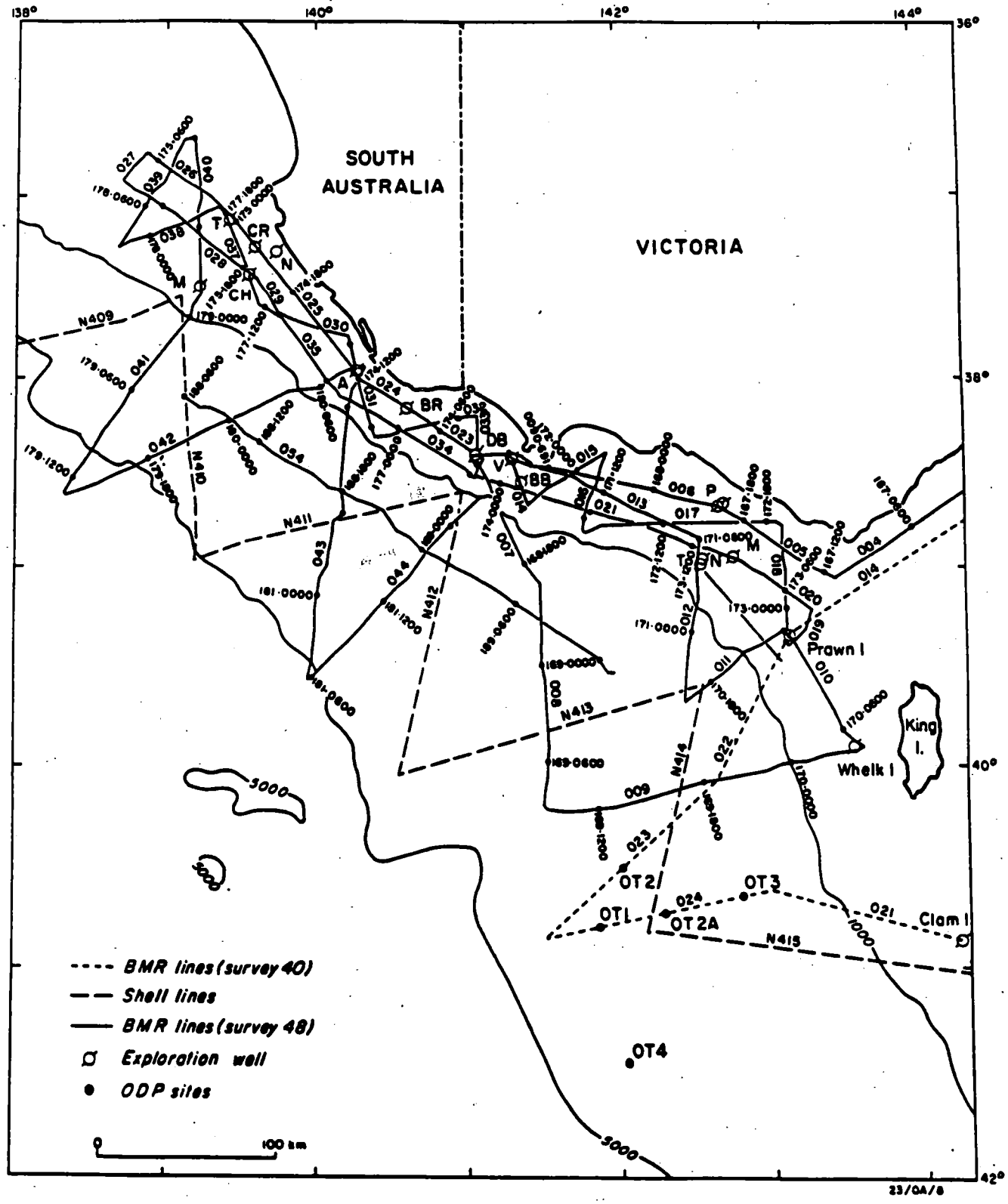
EXECUTIVE SUMMARY OF WESTERN PACIFIC PANEL ACTIVITIES, 1985

There are now more than 60 proposals for drilling in the western Pacific. The panel evaluated each of these individually and then grouped the better ones into 20 "legs". The panel ranked the legs by allowing each of the 11 voting members to choose only 9 legs, with three legs each of highest (3), middle (2), and lower (1) priority. Panel members who were proponents of any leg, or portion thereof, were not allowed to vote for that leg (*). The results are tabulated below:

RANK	LEG	VOTES	(VOTE/11-*)
1	BONINS (Island arc rifting, arc & forearc evolution, diapirism)	* 3 3 3 3 3 2 2 1	2.0
1	JAPAN SEA (Continental back arc spreading, back arc thrusting, paleoceanography)	3 3 3 3 3 3 3 1	2.0
3	BANDA/SULU (Trapped marginal basins, silled basin paleoceanography)	* * 3 3 3 2 2 2 1	1.78
3	SOUTH CHINA SEA (Passive margin and marginal basin evolution)	* * 3 3 3 2 2 2 1	1.78
5	NANKAI (Accretionary processes)	3 3 2 2 2 2 2 1 1	1.64
6	VANUATU (Ridge collision, arc rifting, arc reversal)	* 3 3 3 2 2 1 1	1.5
7	OKINAWA-RYUKYU (Continental arc rifting, forearc tectonics)	3 3 3 3 2 1 1	1.45
8	LAU-TONGA (Back arc spreading, arc & forearc evolution, Louisville collision)	3 2 2 2 1 1 1 1 1	1.27
9	ZENISU-SHIKOKU (Intraplate thrusting, back arc basin evolution)	* 3 2 2 1 1	0.9
10	SUNDA (Accretion vs nonaccretion, slump fans, lower-slope basins)	* 3 3 1 1	0.8
11	SOLOMONS (Plateau collision, arc reversal, intra-arc basin evolution)	2 2 1 1 1 1	0.73
2	KURIL-JAPAN TRENCH (Continental forearc evolution, arc-arc collision)	2 2 2 1	0.64
13	N. MARIANA (Island arc rifting, arc & forearc evolution, diapirism)	* 3 1 1	0.5
13	FOREARC DIAPIRS (Petrology, structure, hydrogeology: 19,26,31°N Mariana-Bonins)	* 3 2	0.5
15	VALU-FA (Zero-aged backarc spreading center)	2 1 1 1	0.45
15	MANILA-TAIWAN (Forearc basin evolution, accretionary processes)	2 2 1	0.45
17	CORAL SEA/G. B. REEF (Passive margin evolution, carbonate-epiclastic sedimentation)	2 1	0.27
17	TTT-SAGAMI TRENCH (Triple junction sedimentation, deformation & tectonics)	2 1	0.27
17	WPAC DOWNHOLE (Monitor 3-plate crustal deformation south of Tokyo)	2 1	0.27
20	LORD HOWE/NORFOLK/3 KINGS		0



THE WESTERN PACIFIC



Coverage of high-quality regional and deepwater seismic survey lines, location of exploration wells, and proposed ODP Sites.

Summary of the Otway Basin Passive Margin Drilling Program

This single drilling leg proposal is based on a previous proposal ("Northeast Tasmania Transform and Passive Margin" - IOP 74) and has now been submitted as a mature proposal by Willcox et al. ("Otway Basin/ West Tasmania Region" - IOP 100). It focuses on the tectonic and sedimentary evolution of the Southern Australian continental margin near the transition from normal rifted to transform passive margin off West Tasmania. The proposal is backed up with considerable exploration industry data (seismic and well data) on the shelf plus new BMR multichannel seismic data which provides an essentially complete site survey framework.

Objectives:

1. To determine the environments of deposition associated with pre-rift, rift phase and post breakup passive margin subsidence proximal to the continent-ocean boundary.

2. To determine the characteristics of thermal geohistory of passive margins before, during, and after breakup.

3. To relate general passive margin subsidence models to eustatic sea level changes to explain pre- and post-breakup regional unconformities across the full width of such a margin (i.e., fully examine the "Vail-Pitman" hypothesis; one of the key COSOD objectives).

4. To extend the high latitude planktic biogeographic record; especially for the Late Cretaceous and Paleogene.

5. To test the relative contributions of thermally vs. kinematically driven prebreakup subsidence driving mechanisms across a passive margin from hinge line to continent-ocean boundary.

6. To examine time of breakup and ocean lithosphere kinematics for Australia and Antarctica.

7. To document the paleoceanographic consequences of the geographical evolution of the west Tasmania Transform.

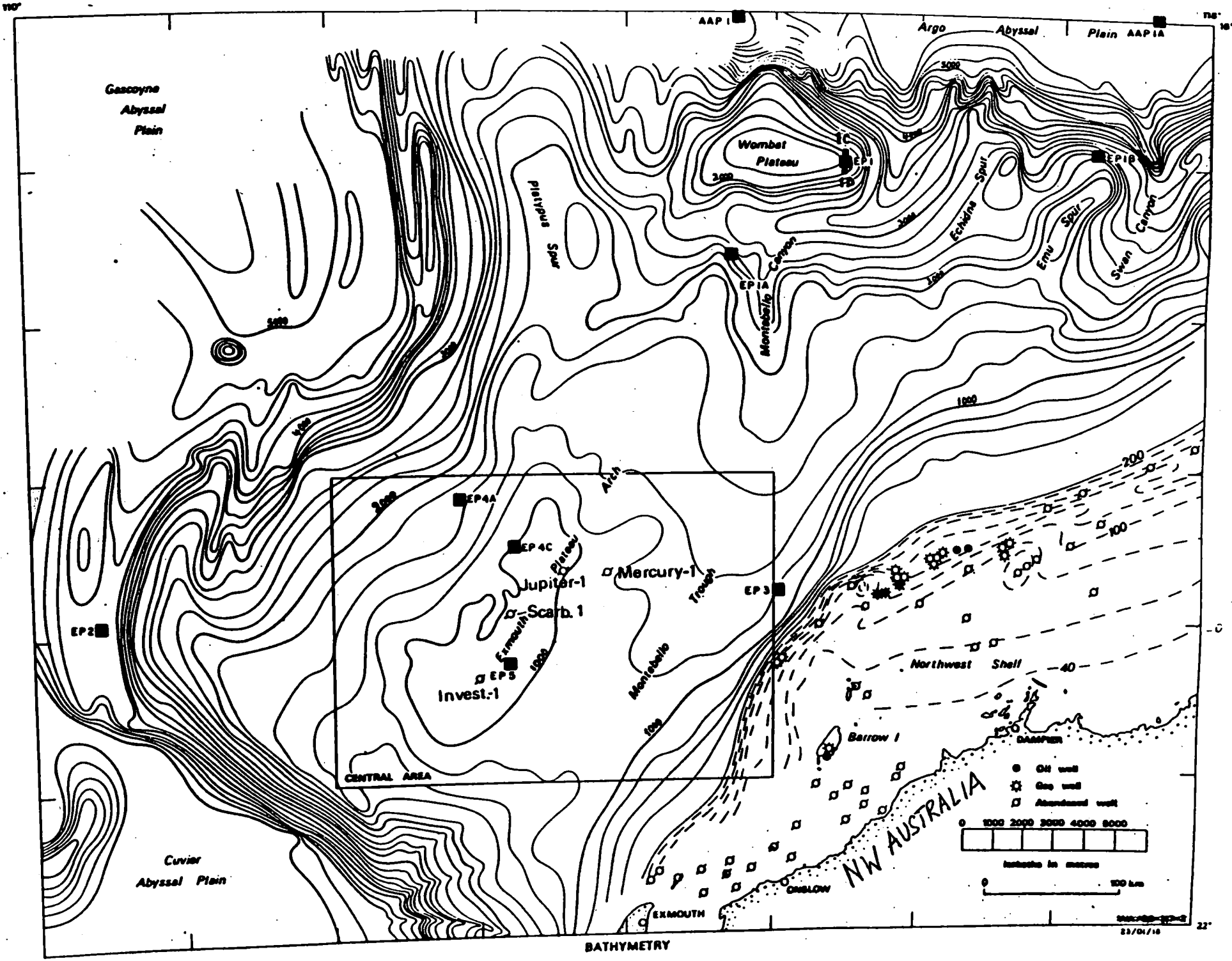
Site Summary

Position	Site	Water Depth	Drill Depth	Hole Type	Drill/Log Days	Objectives/Targets
Deep Margin	OT 1	4130	1000	HPC Rot. Single Bit	13	Mostly Paleogene and Cretaceous sediments on basement
Deep Margin	OT 2	3907	1000	"	13	Mostly Neogene with some Paleogene sed.
Lower Slope	OT 3	3226	1000	"	11	Mostly Cretaceous with some attenuated Paleogene sediments, landward equiv. to OT 1
Abyssal Plain	OT 4	4750	300	"	12	Cretaceous sediments on oceanic basement

From: "A proposal for ODP Drilling on the Australian Continental Margin in the Otway Basin/West Tasmania Region." BMR Record 1985/43 by J. B. Willcox, T. C. Branson and N. F. Exon.

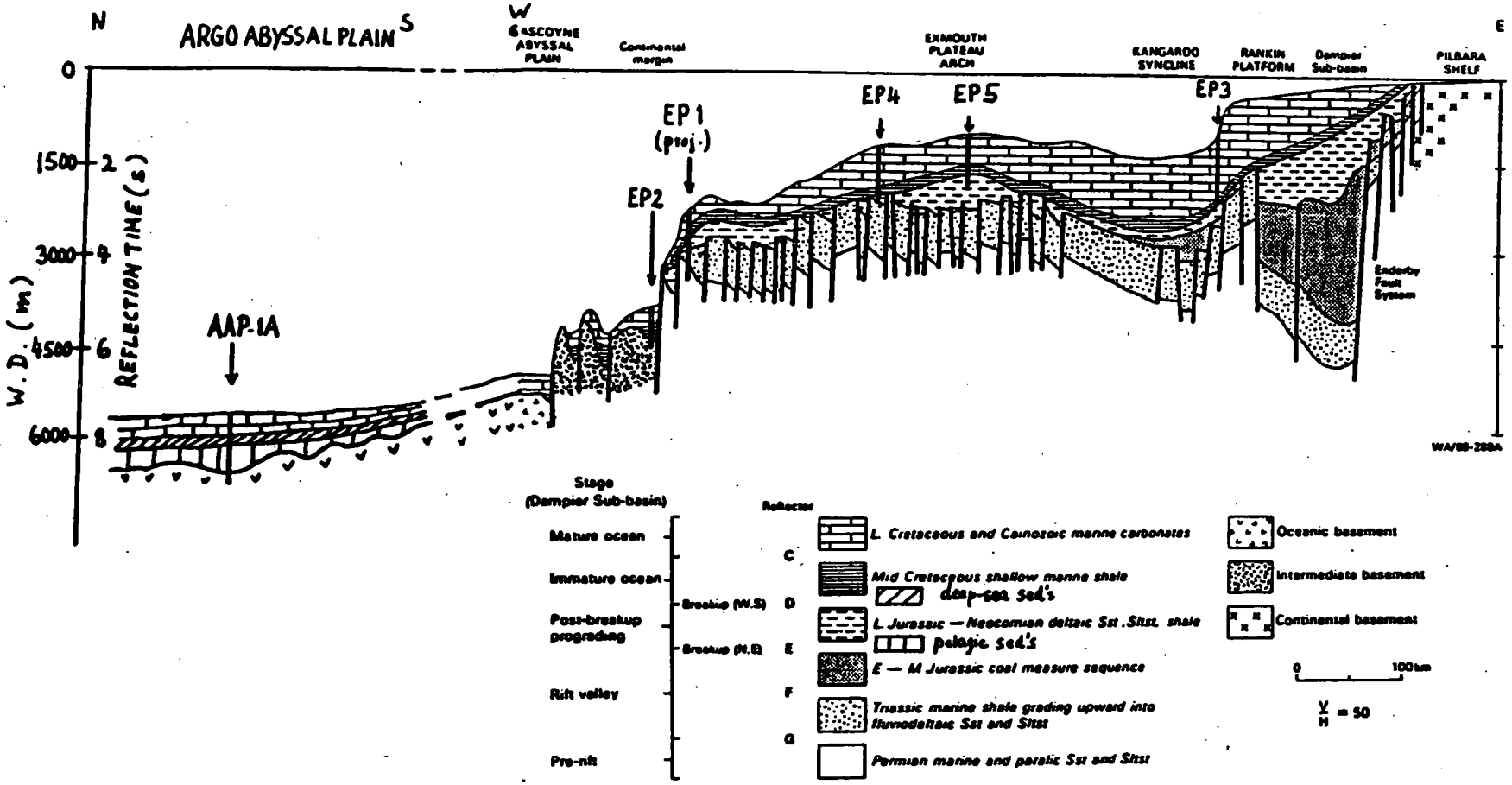
Priority

This proposal specifically addresses general subsidence problems which have not been answered by drilling of the Gallicia Bank on Leg 103, in particular the "Vail-Pitman" hypothesis. Chances of success on the Otway Basin margin are improved by the high quality, open file multichannel seismic data providing good correlations to shelf wells and the lack of volcanics in previously drilled sections.



BATHYMETRY

PROPOSED NORTHWEST AUSTRALIAN ODP SITES RELATED TO BATHYMETRY



Schematic cross-section across the Exmouth Plateau to Gascoyne and Argo Abyssal Plains and the location of proposed ODP drillsites AAP1A, EP2, EP1, EP4, EP5 and EP3 (Argo-Exmouth transect).

3. Site EP5: 20°15'S, 113°12'E; 900 m w.d. TP 1400 m (upper Lower Cretaceous to Recent sediments). Development and truncation of Barrow Delta front region for assessing the submarine development of the central Exmouth Plateau). Seismic profiles: N 213E, GSI line WA 76-20. Nearby commercial well: Investigator-1 (no duplication, since essentially uncored). Drilling time: 8-10 days (without reentry). Top 100-200 m should be (double) HPC-cored.

4. Site EP2: 19°56'S, 110°25'E; 4050 m w.d. TP: 800 m (700 m Cretaceous-Cenozoic post-breakup sediments + 100 m rift-stage (oceanic, transitional or continental) basement. Seismic profile: BMR 17/068 (44.1715). Drilling time: 11 days.

Data Base and Site Surveys

The Argo Abyssal Plain has been geophysically surveyed by a variety of organizations. Major surveys were those reported by Larson (1975), Heirtzler et al. (1978) and Hinz et al. (1978). The eastern and southern margins of the plain have been surveyed by BMR (Stagg and Exon, 1981; Exon and Willcox, 1980). Multichannel seismic site surveys will be carried out in the region by BMR with R/V Rig Seismic in March-June 1986.

The Exmouth Plateau is probably the best explored marginal plateau in the world (von Rad and Exon, 1983), the data base being:

1. Some 12,000 km of single-channel seismic,magnetic and gravity lines ad 6000 km of industry multichannel and magnetic lies. Lines on open-file (see Exon and Willcox 1978, 1980 and Figure 2).

2. The SONNE cruise-8 detailed dredging and single-channel seismic survey (von Stackelberg et al., 1980; Exon et al., 1982, von Rad and Exon, 1983).

3. Additional industry seismic lines on the central plateau since 1978.

4. Eleven (11) commercial wells (Fig.1) on the central and southern Exmouth Plateau and Northwest Shelf (Barber, 1982), which represent no duplication of proposed ODP sites. All well data are available to BMR.

5. Additional MCS and expanding spreading seismic work will be done in the area in March to June 1986 with detailed ODP site surveys being carried out at that time.

TABLE

	Site #	Location	Water Depth	Pene.	Site Days	Hole Type	Major Objectives
Argo Abyssal Plain	AAP1	16°00'S 114°45'E	5550	800	14	RC+ HPC	Tethys paleoenvironment, dating of oldest Indian Ocean, subsidence history
	AAP1A*	16°00'S 117°38'E	5700	1350	18	RC+ HPC	
Northern Exmouth Plateau Plateau Margin	EP1*	16°58'S 115°28'E	1800	1600	10 20 (reentry)	RC RC	Triassic-mid-Jurassic pre- and synrift sedimentation. Lt. Jur. to Cenozoic post breakup of passive margin evolution of juvenile to mature ocean. Paleobathymetry and subsidence history of sed-starved, stretched transform passive margin
	EP1C**	close to EP1	~1800	925	7	RC	
	EP1D**	close to EP1	~1800	880	7	RC	
	EP1A	17°35'S 114°42'E	2500	1400	11	RC	
	EP1B	16°57'S 117°15'E	2450	1400	11	RC	
Western Exmouth Plateau Margin	EP1*	19°56'S 110°25'E	4050	800	11	RC	Rifted crust near ocean/continent boundary
Central Exmouth Plateau	EP3	19°47'S 115°06'E	1200	1300	8	RC+ HPC	Sedimentology and biostratigraphy in response to paleoclimate, paleoocean, sed. supply, sea level fluct. and subsidence. Stranding of Barrow delta
	EP4A	19°10'S 112°53'E	1650	1400	10		
	EP5*	20°15'S 113°12'E	900	1400	8-10 (reentry)		

* Highest Priority = 50 total days on site.
** Alterante for EP1.

Summary of the Argo Abyssal Plain-Exmouth Plateau Drilling Program

This is the abstract of the "super proposal" for a NW Australian Leg by U. von Rad and N. Exon (December 1985) which compiles summaries and updates five previous drilling proposals (IOP #71, 63, 17, Packham and Keene in Australian Yellow Book for EP3-5, SOHP deep stratigraphic test proposal). For all details see the original proposals.

Major Objectives (in order of priority)

Argo Abyssal Plain

1. Jurassic-Early Cretaceous paleocirculation and abyssal paleoecology (only site in Indo-Pacific Ocean with proven datable section of this period!).

2. Dating of oldest marine magnetic anomalies (M-series, down to M25 or older) in the Indian Ocean.

3. Study of Jurassic multiple biostratigraphy on an eastern remnant of the Tethys Superocean for comparison with Atlantic DSDP Sites 534, 105, 367 (paleogeography, superocean convections).

4. Mid-Cretaceous black shales.

5. Tertiary circulation, closure of Tethys.

6. Subsidence history for comparison with adjacent Exmouth Plateau.

Exmouth Plateau

1. Integrated study of sedimentology and bisostratigraphy in response to paleoclimate, paleoceanography, sediment supply; sea level fluctuations and subsidence. Especially sediment response to sea level high stand vs. low stand in clastic sediments (Neocomian marginal-marine to deltaic sediments) and Upper Cretaeous-Tertiary carbonate sequences. Correlation of unconformity-bounded sequence on a regional and global basis; tectonic vs. eustatic control. changes in lithospheric flexural strength to coastal onlap, causes of coastal offlap (EP1 sites, EP5). Paleoceanographic transect from a (present) water depth of 1400 m - 1800 m - 4000 m - 5700 m.

2. Triassic to mid-Jurssic pre-rift and syn-rift sedimentation in a transect from the continental (plateau, EP1 sites) to transitional (rift-stage) crust (EP2).

3. Late Jurassic to Cenozoic post-breakup development of passive margin sedimentation from a juvenile to mature ocean (EP1 sites, EP5 from Neocomian onwards). Mesozoic climate.

4. Paleobathymetry and subsidence history of a very wide, sediment-starved, stretched/transform passive margin with a well-defined Callovian breakup unconformity (EP1). Correlation in a transect with transitional-crust Site EP2 at ocean/continent boundary and Site AAP1A on oceanic crust. Correlation with dredge data (SONNE-8 cruise) and commercial shelf wells, especially Jupiter-1 (Fig. 1).

Background

The Argo Abyssal Plain contains the oldest oceanic crust in the Indian Ocean, with presumed M25 (or older?) crust of Kimmeridigian-Oxfordian age (Heirtzler et al., 1978). However, preliminary dating of the opening (Initial Reports of DSDP, Leg 27: Veevers et al., 1974) has been accomplished at only one site (261), and this gives an age younger than M25. It contains up to 1 second of Upper Jurassic to Recent sediment to three sequences. In Site 261 which was not drilled in the oldest southeastern corner of the plain, core recovery was only 23%, and the age of basement remains in doubt. Therefore, a fully cored site in the oldest part of the Argo Abyssal Plain with a complete stratigraphic sequence is essential.

The Exmouth Plateau (Figs. 1,2) is one of the best examples of a large marginal plateau at a very old, starved, passive margin. Where the pre-rift, early-rift, and post-breakup subsidence history of a rifted, sediment-starved, wide margin can be easily studied by deep-sea drilling (it is certainly the only such margin in the Indian Ocean). It is also probably the best studied margin of this type. Nevertheless its northern and western margins are undrilled and enigmatic. Its broad tectonic framework is controlled by Mesozoic rifting and transform faulting which accompanied the breakup of Australia and 'Greater India' in the Middle Jurassic (155 m.y. ago) in the north, and in the Early Cretaceous (120-125 m.y. ago) in the west and south.

Highest Priority Sites in Order of Priority

1. Site AAP1A: 16°00'S, 117°38'E; w.d. 5700 m; TP: 1350 m (1250 m Upper Jurassic, Lower/Middle/Upper Cretaceous and Cenozoic sediments + 100 m oceanic crust). Seismic Profiles: Shell N207 (SSP39650; see Fig. 6) and N208 (SP40345).

2. Site EP1: 16°58'S, 115°28'E; 1800 m w.d. TP: 1600 m (1100 m Triassic and Lower-Middle Jurassic pre-break-up sediments + 500 m Lower Cretaceous, Upper Cretaceous-Cenozoic post-breakup sediments). Logging suggested. Seismic Profiles: SO-8-008 (06.12) and near BMR17/079 (66.0740). Drilling time: 10 days (without reentry), 20-25 days for deeper penetration with multiple reentry. A similar section might be drilled by 2 non-reentry holes, EP1C for the upper, EP1D for the lower section of EP1 and represents a comparable level priority alternative to EP1.

BROKEN RIDGE: PROPOSED SITES

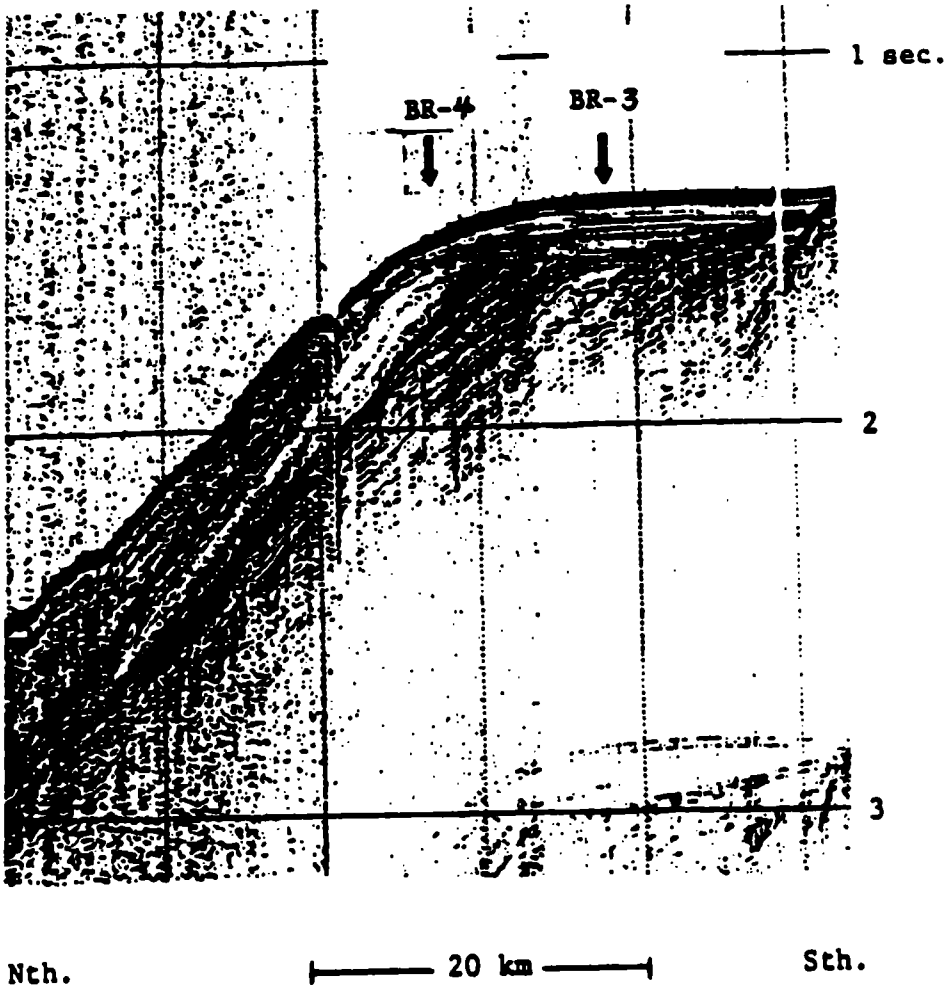


Figure 1. Two proposed sites (BR-3 and BR-4) on Broken Ridge to study processes of rifting. [redacted] Actual site locations would be selected after a high-resolution seismic reflection survey of Broken Ridge.

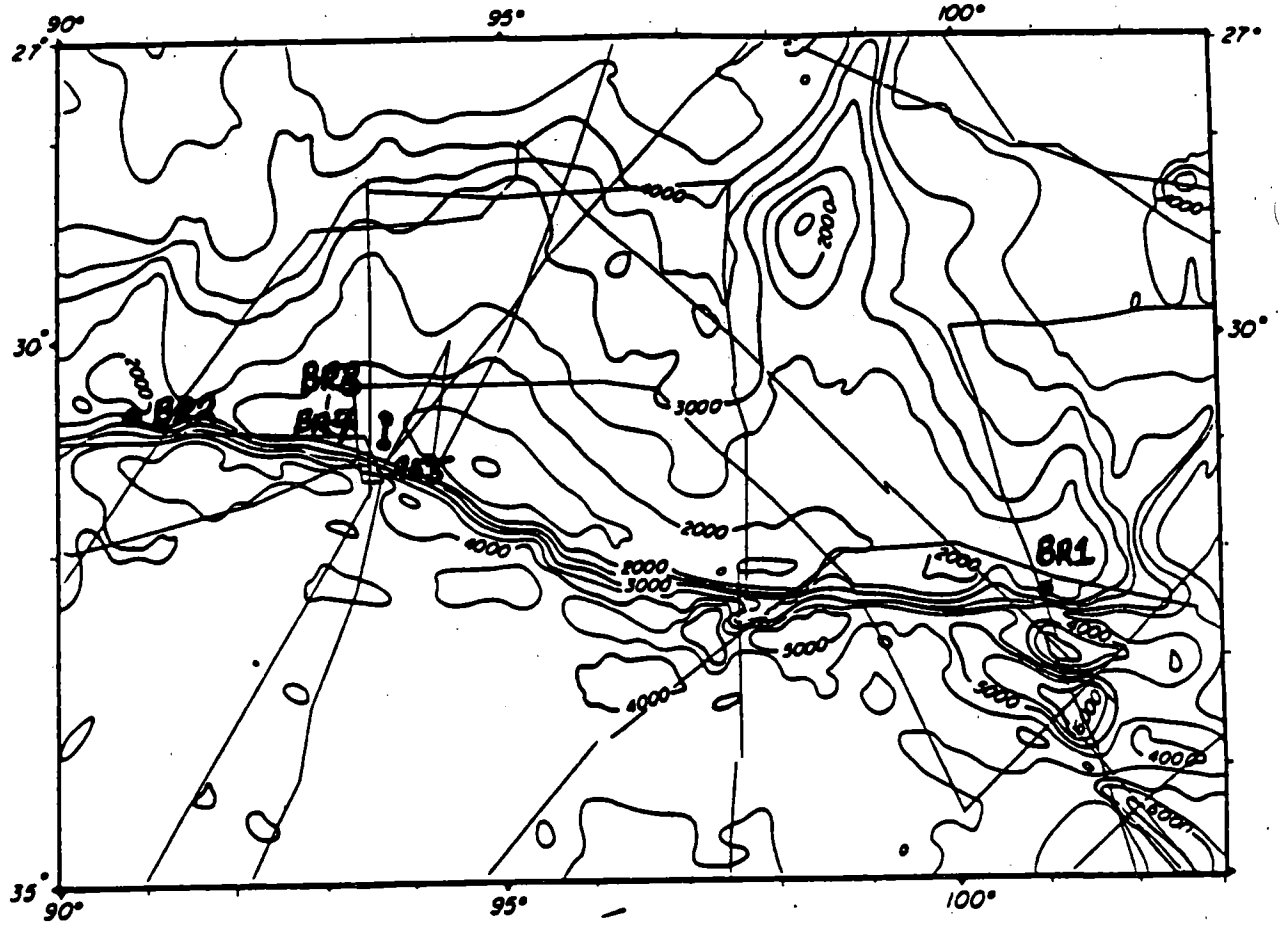


FIGURE 2

Summary of the Broken Ridge Drilling Program:
The Response of the Lithosphere to Rifting Processes, and
A test of Late Cretaceous Hotspot Models.

Broken Ridge, a relatively shallow water platform isolated from land areas in the eastern Indian Ocean, was rifted along its southern margin from the Kerguelen Plateau prior to Middle Eocene time. By virtue of its distinctive seismic stratigraphy (Fig. 1), Broken Ridge is an attractive target for ODP drilling to determine whether rift flank uplift is a precursor to actual rifting (finite extension), or whether such uplift is a consequence of the rifting process. Furthermore, drilling will be able to determine whether Broken Ridge originally formed as the product of Late Cretaceous hotspot volcanism.

Drilling Objectives:

A total of 4 primary sites (or 7 sites total if contingency sites are drilled) are proposed on Broken Ridge (Fig. 2) to address the following two objectives:

1. A N-S transect of holes across the crest of Broken Ridge in the vicinity of DSDP Site 255 (Fig. 2) is designed to determine whether the mechanism for rifting at Broken Ridge was primarily an "active" or "passive" process. In an active rifting process, uplift precedes actual rifting as heat is introduced into the plate from below, presumably due to a convective thinning process. However, in a passive rifting process, uplift of the rift flank either accompanies or is later than actual rifting and is likely to be a flexural response of the rift flank to thermal buoyancy forces (or dynamic forces) associated with the rifting process. The N-S transect of 2 holes (or 4 holes if the contingency sites are drilled) is intended to constrain the uplift/subsidence history of Broken Ridge since the Late Cretaceous, and by providing ages and paleodepths for the pre- and post-rift sequences, the timing between uplift and rifting at Broken Ridge will be determined.

2. Two sites, penetrating crystalline basement at the east and west extremities of the Ridge (and a lower priority third site are designed to establish whether Broken Ridge formed due to Cretaceous hotspot volcanism, or whether it is continental in nature.

Broken Ridge: Proposed Drill Sites (see attached table)

Total onsite time required (excluding transit between sites:

13.5 days for sites BR-1 to BR-4 or
16.5 days for sites BR-1 to BR-7

Status of Site Surveys

Weissel has a pending NSF proposal which will provide the high-resolution single-channel seismic reflection surveys necessary to properly locate Sites BR-1 to BR-7. MacKenzie of UT (Austin) has submitted a proposal to NSF to add OBS refraction measurements of crustal structure to Weissel's field program. The Weissel program is scheduled on CONRAD for July and August 1986. In addition, Hinz has expressed interest in obtaining MCS data over Broken Ridge, most likely in early 1987.

Related JOIDES Proposals

106/B, 135/B

Broken Ridge: Proposed Drill Sites

Site			Depth	Sed. Thick.	Pene-tration	Drill. Mode	Site Objectives/ Remarks
BR-1	32.5°S	100°E	2000 m	~500 m	~550 m	Rotary	Hotspot model east end Broken Ridge
BR-2	30.5°	90.5°	2000 m	~500 m	550 m	Rotary	Hotspot model west end Broken Ridge
BR-3*	31°	93.5°	1100 m	>700 m	400 m	HPC/ XCB/ Rotary	Oldest post-rift sediments above unconformity
BR-4*	30.8°	93.5°	1100 m	>700 m	500 m	HPC/ XCB Rotary	Youngest pre-rift sediments
BR-5**	30.9°	93.5°	1100 m	>700 m	~200 m	"	Contingency sites to build up the stratigraphic section between BR-3 and BR-4
BR-6**	30.8°	93.5°	1100 m	>700 m	~200 m	"	
BR-7**	30.8°	93.5°	1100 m	>700 m	~200 m	"	

Notes:

* Shown in Figure 1.

** To be drilled only if lithologies/hole conditions at BR-3 and BR-4 require a series of shallow penetration holes.

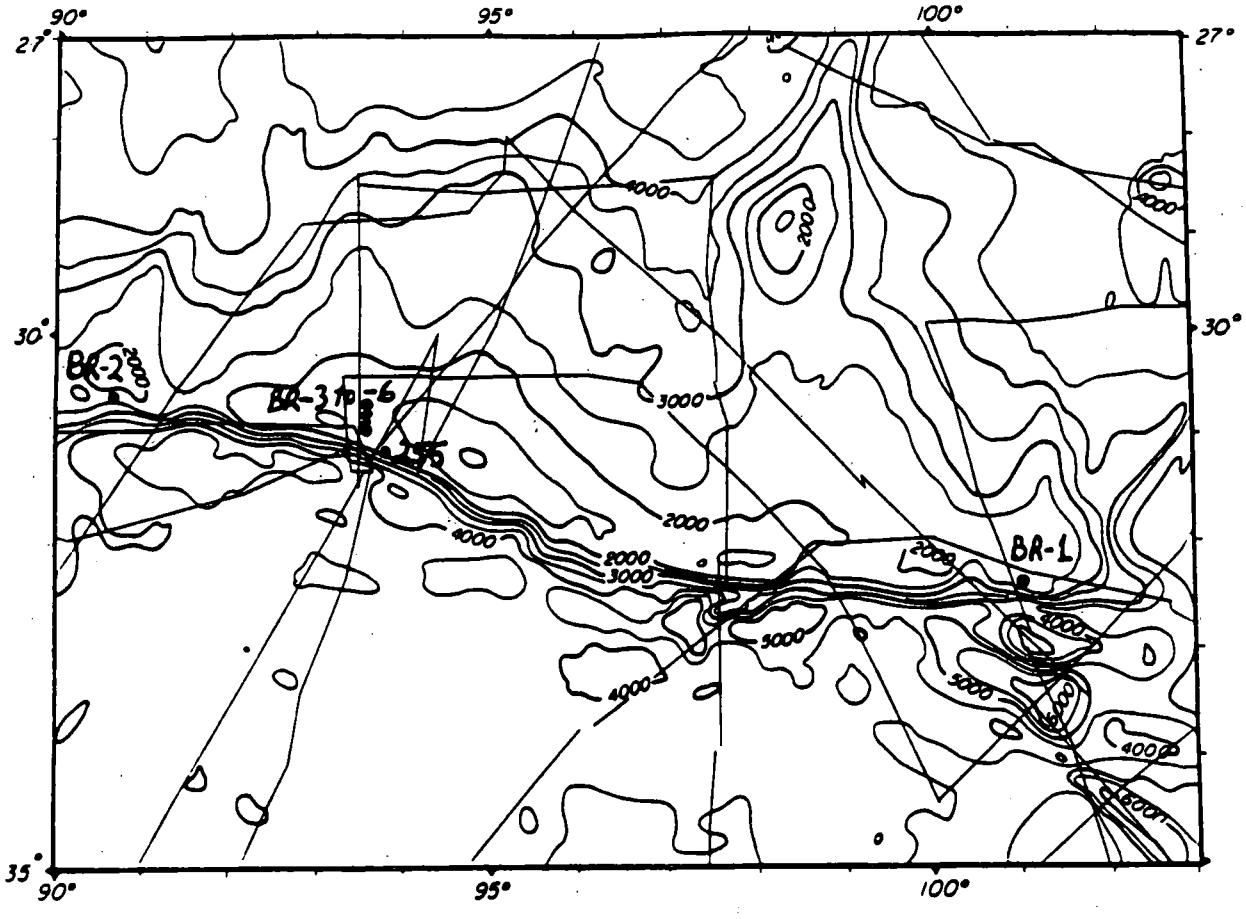


FIG 2

Broken Ridge Drilling Sites

BROKEN RIDGE: PROPOSED SITES

for rifting objective (A)

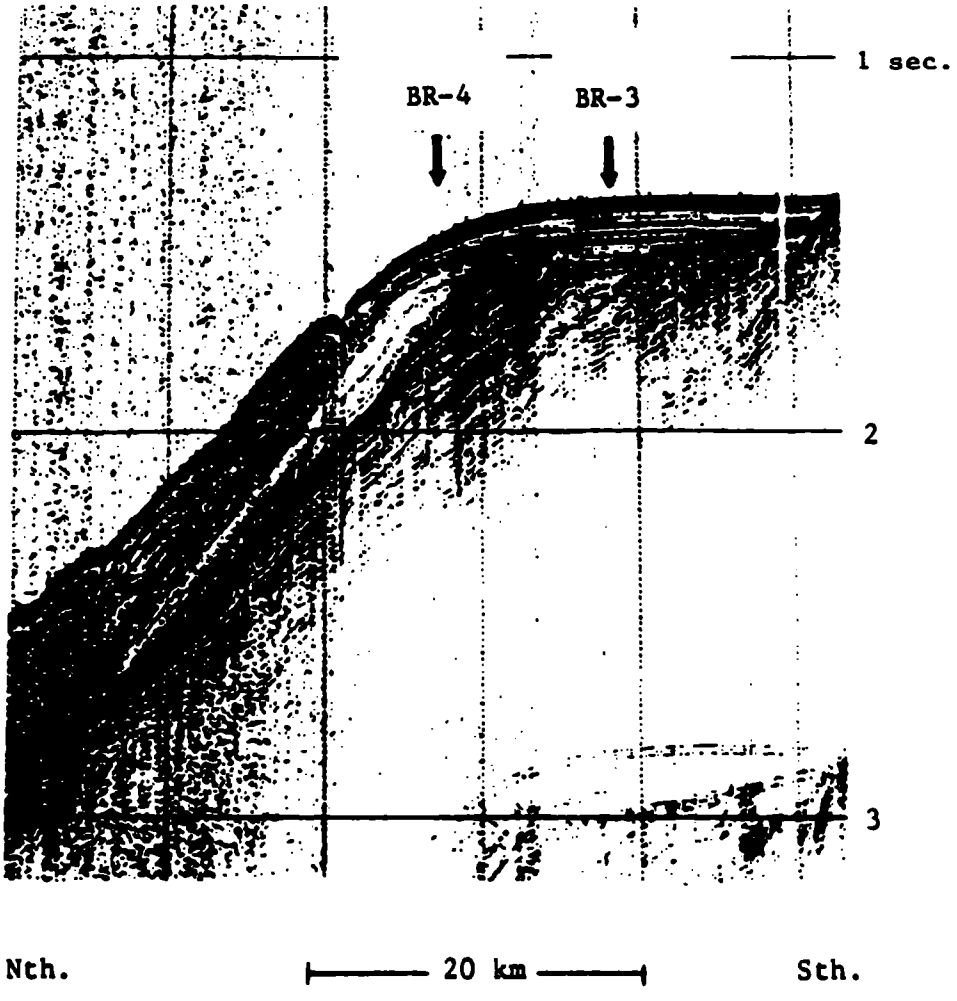


Fig. 1

III. Broken Ridge: Proposed Drill Sites

Site	Lat. °S	Long °E	Depth m.	Sed. Thickn. m.	Penetr. m.	Drill. Mode	Site Objective/ Remarks
BR-1	32.5°	100°	2000 m	~500 m	~550 m	Rotary	Hot spot model (B) East end Broken Ridge
BR-2	30.5°	90.5°	2000 m	~500 m	~550 m	Rotary	Hot spot model (B) West end of Broken Ridg
*BR-3	31°	93.5°	1100 m	>700 m	~400 m	HPC/ XCB/ Rotary	Oldest post-rift sediments above unconformity (A)
*BR-4	30.8°	93.5°	1100 m	>700 m	~500 m	HPC/XCB Rotary	Youngest pre-rift sediments (A)
+BR-5	30.9°	93.5°	1100 m	>700 m	~200 m	Rotary	Contingency sites to build up the stratigraphic section between BR-3 and BR-4 (A)
+BR-6	30.85°	93.5°	1100 m	>700 m	~200 m	Rotary	

Notes:
* Shown in Figure 1
+ To be drilled only if lithologies/hole conditions at BR-3 and BR-4 require a series of shallow penetration holes to build up the stratigraphic section.

Total onsite time required (excluding transit between sites)
= 13.5 days, for sites BR-1 to BR-4
(or) = 16.5 days, for sites BR-1 to BR-6

IV. Status of Site Surveys

Weissel has a pending NSF proposal which will provide the high-resolution single-channel seismic reflection surveys necessary to properly locate Sites BR-1 to BR-6. MacKenzie of University of Texas (Austin) has submitted a proposal to NSF to add OBS refraction measurements of crustal structure to Weissel's field program. The Weissel program is scheduled on Conrad for July and August 1986. In addition, Hinz has expressed interest in obtaining MCS data over Broken Ridge, most likely in early 1987.

V. Related JOIDES Proposals: 106/B, 135/B

Drilling at Broken Ridge: A. The response of the lithosphere to rifting processes, and B. A test of Late Cretaceous hot spot models.

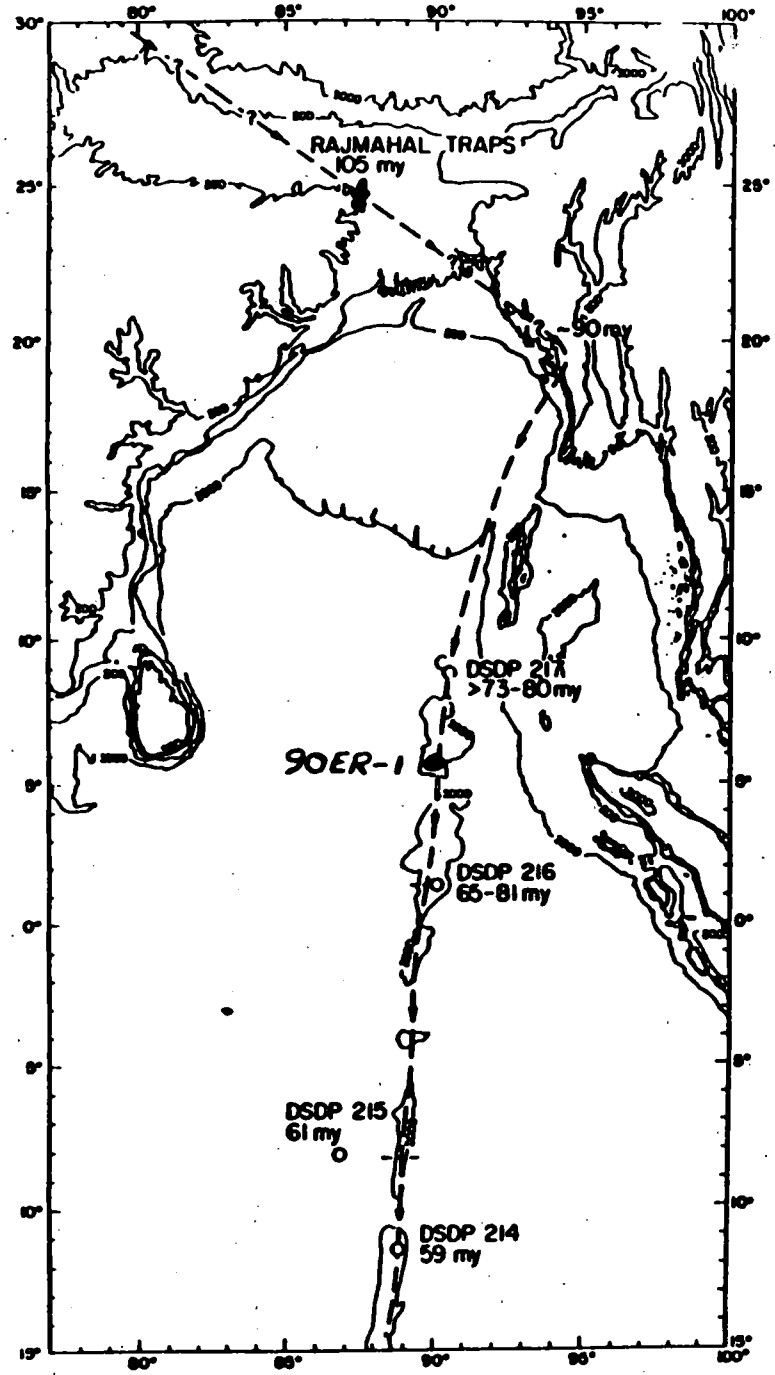
I. Broken Ridge, a relatively shallow-water platform isolated from land areas in the eastern Indian Ocean, was rifted along its southern margin from the Kerguelen Plateau prior to Middle Eocene time. By virtue of its distinctive seismic stratigraphy (Fig. 1), Broken Ridge is an attractive target for ODP drilling to determine whether rift flank uplift is a precursor to actual rifting (finite extension), or whether such uplift is a consequence of the rifting process. Furthermore, drilling will be able to determine whether Broken Ridge originally formed as the product of Late Cretaceous hot spot volcanism.

II. Drilling Objectives

A total of 4 primary sites (BR-1 to BR-4) [or 6 sites total (BR-1 to BR-6) if contingency sites are drilled] are proposed on Broken Ridge (Fig. 2) to address the following two objectives:

A: A N-S transect of holes across the crest of Broken Ridge in the vicinity of DSDP Site 255 (Fig. 2) is designed to determine whether the mechanism for rifting at Broken Ridge was primarily an "active" or "passive" process. In an active rifting process, uplift precedes actual rifting as heat is introduced into the plate from below, presumably due to a convective thinning process. However, in a passive rifting process, uplift of the rift flnk either accompanies or is later than actual rifting and is likely to be a flexural response of the rift flank to thermal buoyancy forces (or dynamic forces) associated with the rifting process. The N-S transect of 2 holes (BR-3 and BR-4) [or 4 holes (BR-3 to BR-6) if the contingency sites are drilled] is intended to constrain the uplift/subsidence history of Broken Ridge since the Late Cretaceous, and by providing ages and paleodepths for the pre- and post-rift sequences, the timing between uplift and rifting at Broken Ridge will be determined.

B: Two sites (BR-1 and BR-2), penetrating crystalline basement at the east and west extremities of the Ridge (and an optional lower priority third site in the vicinity of Site 255) are designed to establish whether Broken Ridge formed due to Cretaceous hot spot volcanism, or whether it is continental in nature.



. 19. Origin of the Ninetyeast Ridge, as trace of the Kerguelen Hot Spot. Buried continuation he ridge to about 17°N based on geophysical evidence. Extent north of that latitude and nection to Rajmahal Traps are speculation.

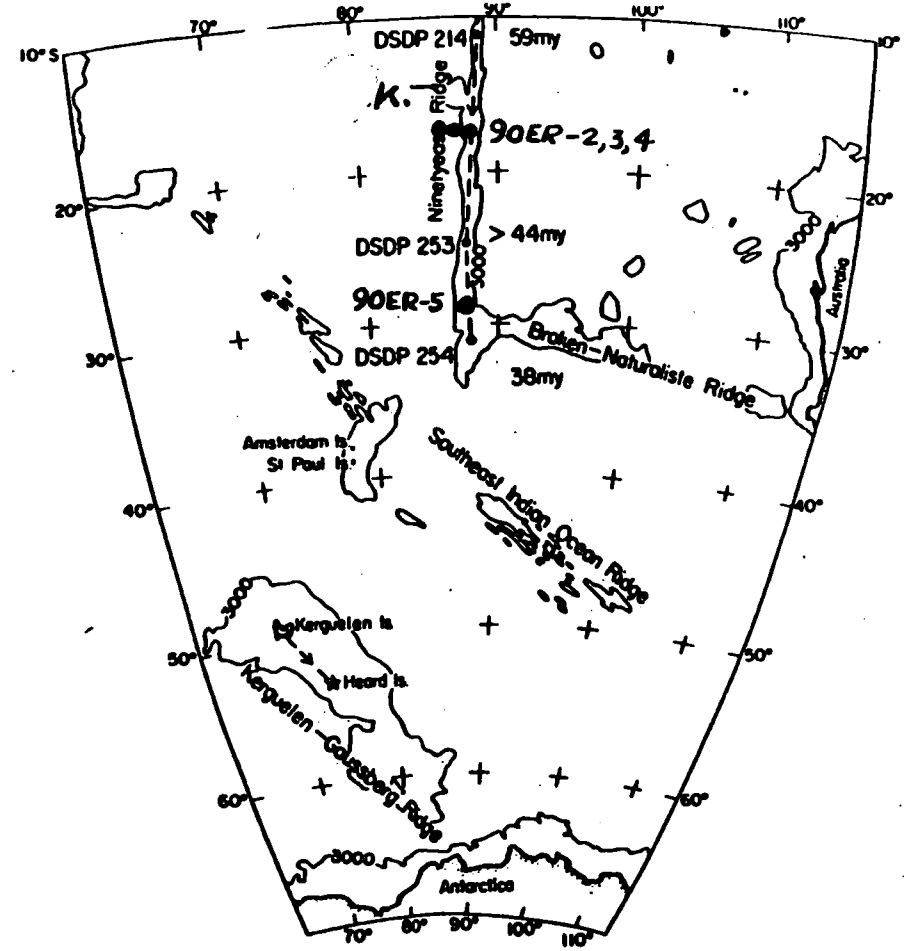


Fig. 19 (*continued*)

Figure 2. Map of Eastern Indian showing major tectonic and geologic features targeted for ODP drilling (from Curray et al., 1982).

Summary of the Ninetyeast Ridge Drilling Program

Principle Objectives:

The program of drilling on the Ninetyeast Ridge is based around four major themes, two of which are of broad general interest and two of which are unique to the Indian Ocean.

The two problems of global interest are the major objectives. They are:

1. To collect geochemical and radiogenic isotope data to provide constraints on processes which (a) create heterogeneities in crustal rocks, and (b) enable such heterogeneities to exist for long periods of time in a convecting mantle.

2. To carry out a low-latitude HPC transect of continuous Neogene sections for reconstruction of dissolution profiles, equatorial surface productivity, vertical oceanic gradients, and for high-resolution biostratigraphy and magnetostratigraphy.

There are two additional objectives which are regional. They are:

3. To provide samples for careful, high-resolution study of the northward motion of India and to relate changes in plate velocity to the onset of the Himalayan orogeny and tectonic events in Southern China. Current data indicate that the Indian plate slowed down by a factor of 3 after colliding with Eurasia.

4. To carry out a North-South drilling transect with broad latitudinal extent to detect climatic and paleoceanographic changes. A specific example is the record of aeolian transport from Western Australia through the Tertiary.

Specific Sites:

A program was developed around these objectives. It corresponds to 25 days of drilling and logging time at five separate sites. If the D/V RESOLUTION leaves from Colombo it will arrive at the southern end of the Ninetyeast ridge 35 days later. The sites are numbered from the north and are located as follows:

90ER (1) at 6°N 90°E. Objectives - basalt geochemistry -northward motion - paleoenvironment.

90ER (2) at 16°30'S 88°E. Objectives - basalt geochemistry - HPC depth transect - northward motion - paleo-environment.

90ER (3) at 16°30'S 87°30'E. Objective - HPC depth transect
(4) at 10°30'S 86°45'E. Objective - HPC depth transect

90 ER (5) at 29°S 87°30'E. Objectives - basalt geochemistry - northward motion - paleoenvironment.

These sites synthesize the objectives of proposals by Frey and Sclater (150/B); Peterson (97/B); Peirce (196/B); Oberhoensli and Herb (116/B), and Rea (98/B).

Priorities:

Currently none of these sites have site surveys. Such surveys are required. Curray and Sclater are writing a proposal to provide these surveys for the northern four sites from the R/V THOMAS WASHINGTON in 1987. It is expected that the southern site will be surveyed by Weissel from the R/V CONRAD during his Broken Ridge cruise in 1986.

TABLE

Ninetyeast Ridge	Water Depth	Drill. Days	Penetration Sedi.	Penetration Basm't	Sites Hole Type
90ER 1 6°N 90°E	2500	8	~700 m	50 m	Rotary core
90ER 2 16°30'S 88°E	1800	5	~400 m	50 m	HPC, Rotary Core
90ER 3 16°30'S 87°30'E	3500	2	~200	-	HPC
90ER 4 16°30'S 86°45'E	4750	2	~200 m	-	HPC
90ER 5 29°S 87°30'E	2300	3	~200 m	50 m	Rotary core

Including 5 days of logging time gives a total of 25 days for drilling and logging.

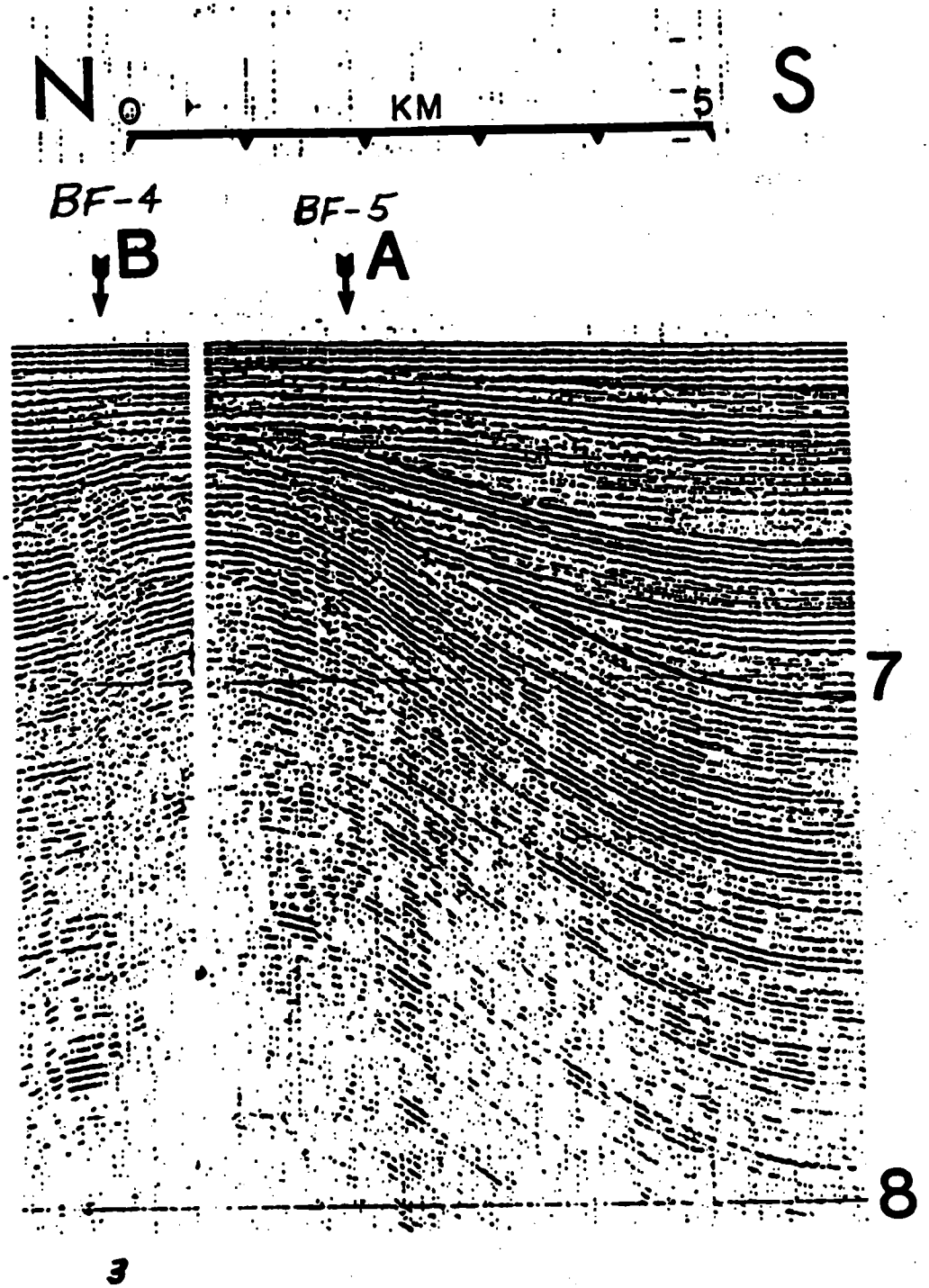


Figure 3. Close-up of the northernmost fault block in Fig. 1A. Arrows labeled A and B refer to drilling objectives A and B discussed in this proposal.

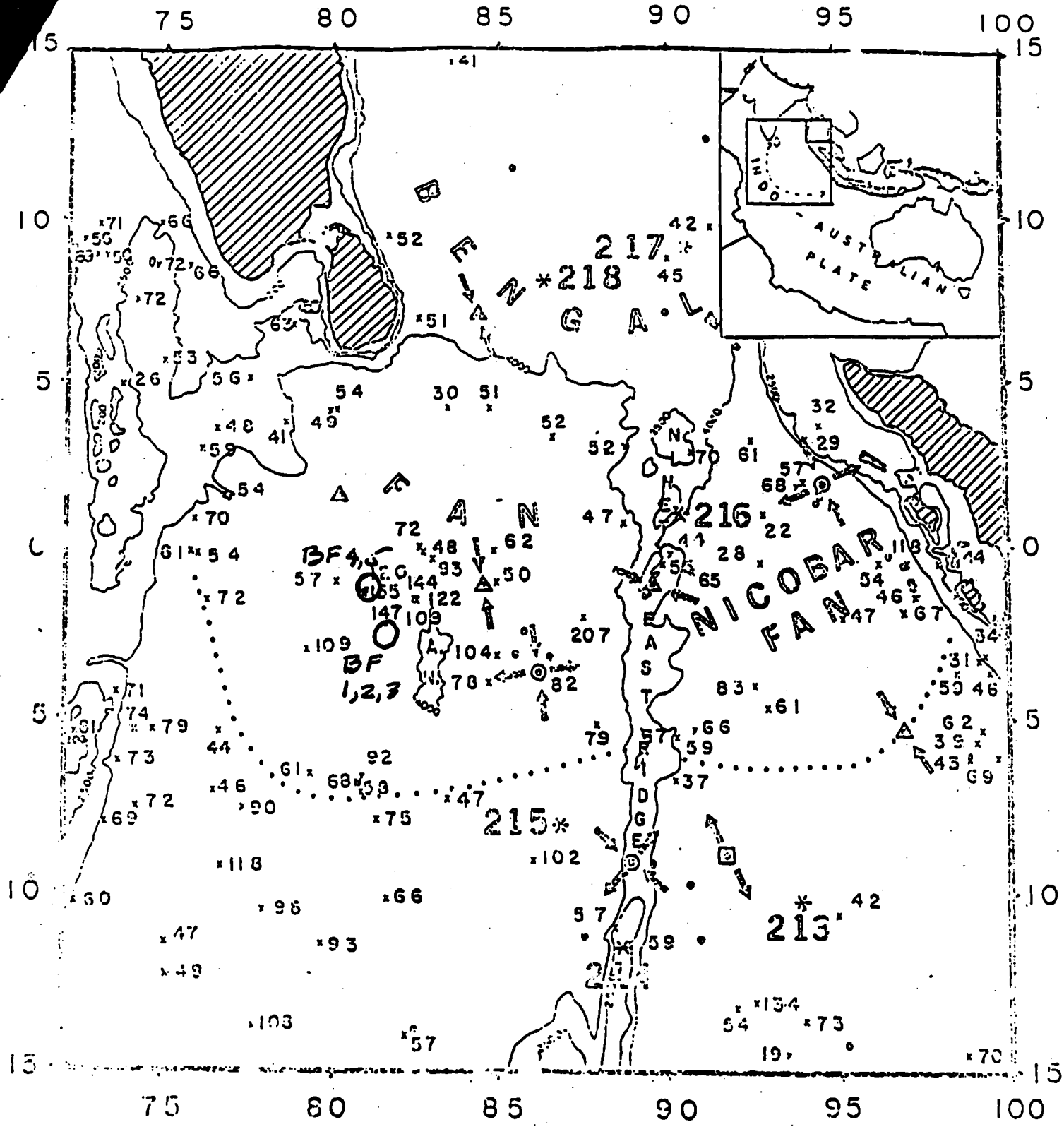


Fig. 1. Crosses denote the locations of heat flow measurements (in mWm^{-2}) compiled by Geller et al., (1983). The small square at the southern end of the Bengal Fan is the average heat flow from site 64. Asterisks indicate DSDP locations. A.N. is Afanazy Nikitan seamount group. Solid dots are intraplate earthquakes. Triangles denote thrust focal mechanisms, circles strike slip mechanisms, and square normal mechanisms. The dotted lines roughly show the southern limit of fan deposits. The dashed line in the upper right hand corner is the southern limit of the observed deformation. Strikes of principal stress axes for intraplate earthquakes within the Indo-Australian plate are shown by arrows. Depths are contoured in meters.

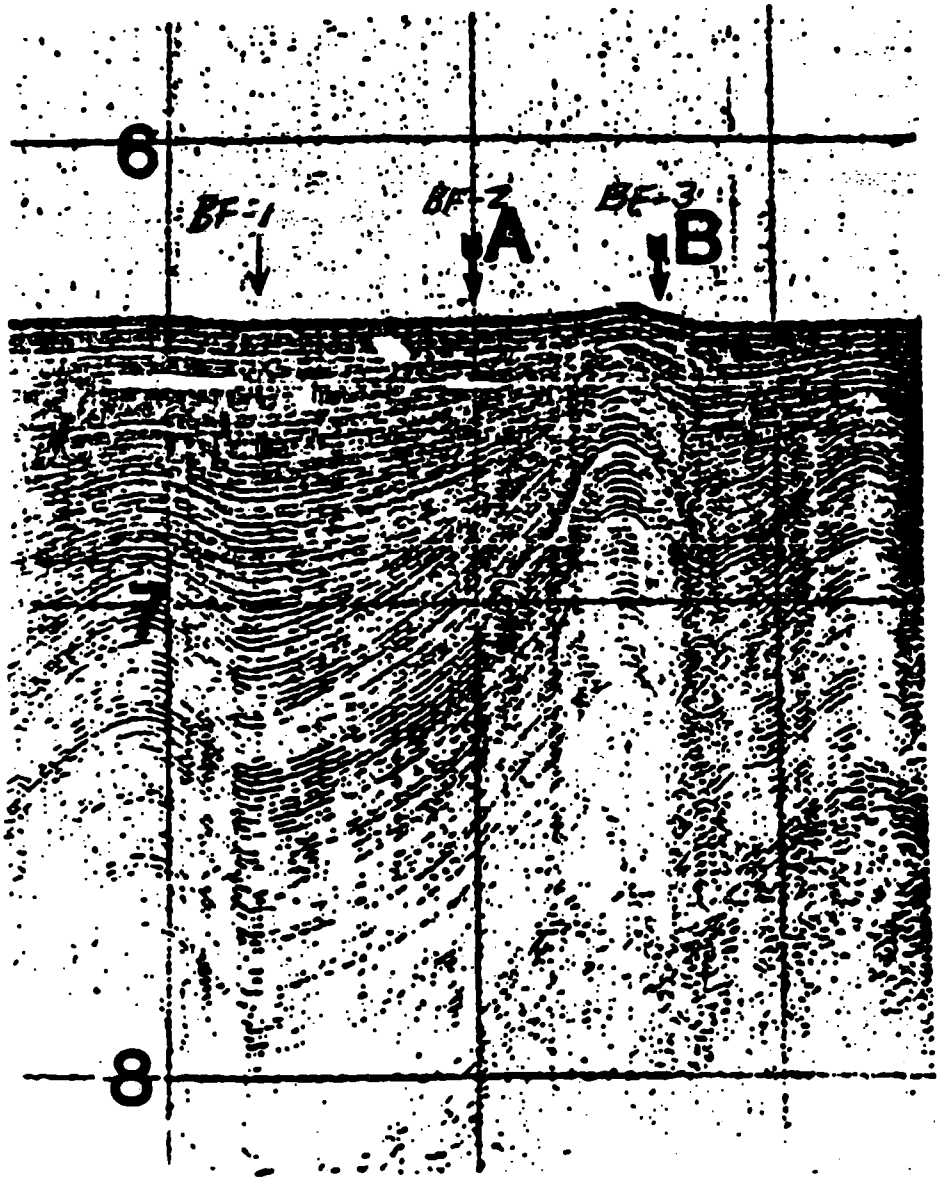


Figure 2. Another typical rotated fault block from the region of intraplate deformation. Arrows A and B refer to drilling objectives A and B in this proposal.

Summary of the Intraplate Deformation, Distal Bengal Fan Drilling Program

Introduction

A unique example of intraplate deformation is found in the Central Indian Ocean basin, south of India (Fig. 1). Oceanic crust and overlying sediments are deformed into long-wavelength (~200 km) undulations and are disrupted by closely-spaced (~5-10 km) faults showing a reverse sense of motion (Figs. 2, 3). Gravity anomalies suggest that the surface of oceanic Moho is deformed into undulations similar to those observed in the surface of the crust. Also associated with the region of deformation defined on the basis of single-channel seismic reflections profiles are (a) intraplate earthquakes, whose foci lie below the oceanic crust, and (b) abnormally high heat flow values distributed widely over the Central Indian Ocean basin. Many of the measured surface temperature-depth profiles are nonlinear, consistent with an upward flow of water with an average velocity of 7×10^{-8} m/s. Such fluid flow is highly unusual in view of the thick, uniform sediment cover of Bengel Fan deposits, and the age of the underlying crust.

From the style of the deformation and the focal mechanisms determined for several intraplate events, we believe that the Indo-Australian plate is deforming under lateral (~N-S) compression, which probably dates from Late Miocene time. However, the Late Miocene age is poorly constrained, stemming from a limited number of piston cores from the deformation, and the age of a prominent unconformity drilled at DSDP Site 218.

Drilling Objectives (see last column in the following table):

A. To determine the age of onset of the deformation, and the subsequent history of movement of individual fault blocks.

B. To understand the relationship of the fault zones (or surfaces) to the upward flow of water discovered from surface heat flow measurements.

C. To relate stratigraphy in the distal Bengal Fan to uplift, denudation, and climate change in the Himalayas, to the collision history of India and Asia, and to eustatic sea level changes (the Vail sea level curve).

Site Information

These objectives can be attacked with a coordinated set of five sites. Two sites will be drilled through fault planes, two sites will be drilled through the unconformities on the back sides of the hills to establish the time of onset of deformation, and one deeper site will be drilled in the conformable Bengal Fan section off the hills.

Site Survey Status

Weissel is funded by NSF for a research cruise to this area, but site surveys are not a part of the work statement. The locations of the hills and general structure is known, but precision site surveys will be essential before drilling. Sea beam, high resolution seismic reflection, and bottom-navigated heat flow must be done to locate sites BF-3 and BF-4 through the faults. Weissel and Curray are prepared to request this survey or respond to an RFP.

	Site	Water Depth	Type Hole	Pene.	Drill. Days	Oldest Sediment	Objective
BF-1	30°S 82°E	4500 m	HPC + XCB	1000 m	14	lower Miocene	C
BF-2	03°S 82°E	4500 m	"	650	7	mid Miocene	A
BF-3	03°S 82°E	4500 m	"	650	7	"	B
BF-4	01°S 81°E	4500 m	"	650	7	"	B
BF-5	01°S 81°E	4500 m	"	650	7	"	A
					42		

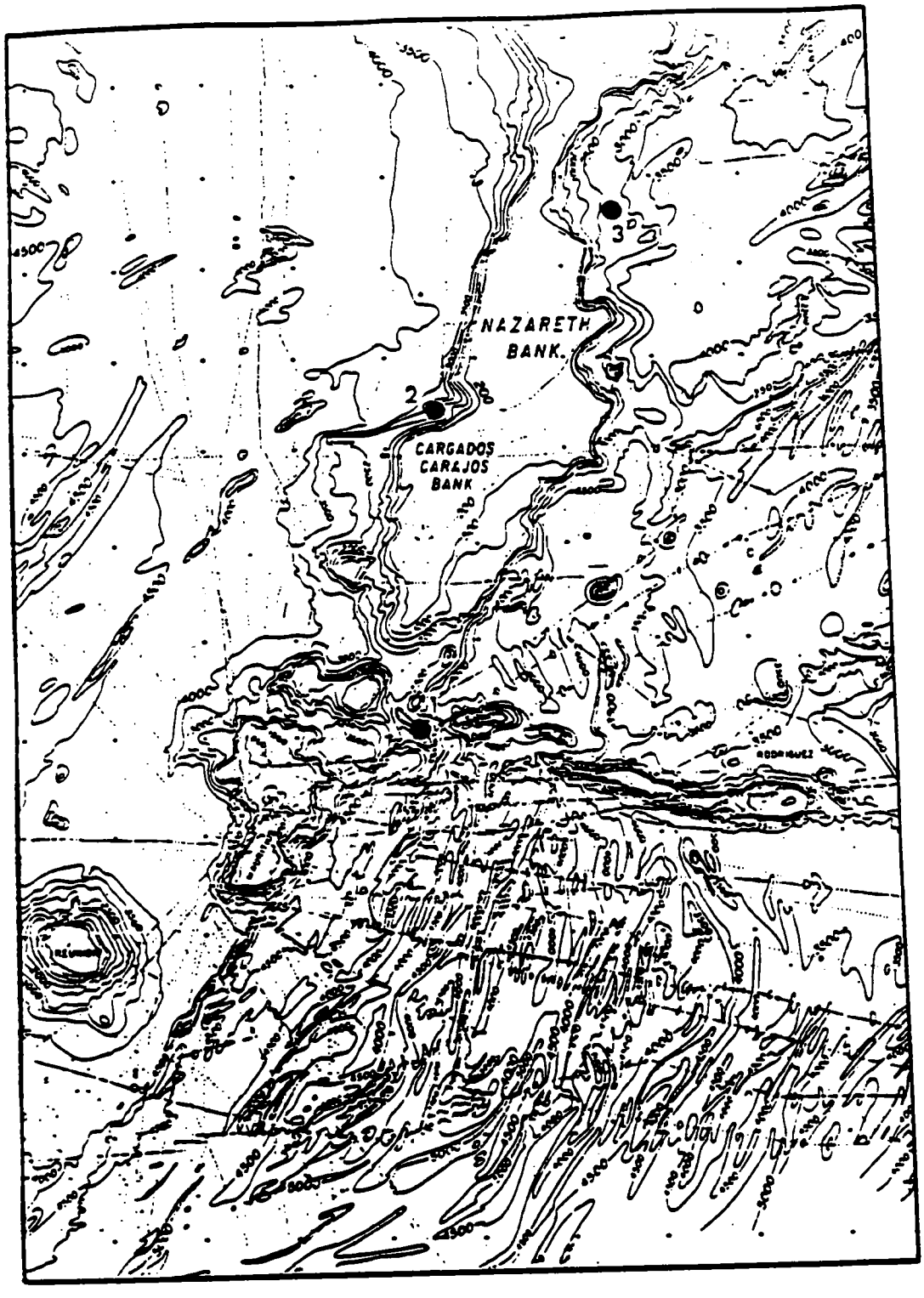


Fig. 6. Locations of proposed drill sites MP-1, MP-2, and MP-3 on the Rodrigues Ridge and Mascarene Plateau.

Summary of the Mascarene Plateau Drilling Program

Principle Objectives:

Drilling on the Mascarene Plateau will meet specific objectives which are described in greater detail in the proposal by Duncan et al. (1985):

1. To document the probable age progression in volcanic activity from north to south which records the motion of the Indian and more recently, the Somali plates over the Reunion hotspot;

2. To investigate the geochemical variation of magma erupted over the hotspot, from Deccan traps-type flood basalts to central, oceanic island volcanism;

3. To describe the nature of the crust beneath the volcanic and limestone pedestal (continental fragment? or entirely volcanic?) and its subsidence history;

4. To examine the nature of rifting on the margin of a volcanic plateau, and the phenomenon of channeled flow from an off-ridge hotspot.

A program of three single bit sites should address these objectives, would occupy about 14 days of drilling, and would be compatible with either the SWIR, Fossil Ridge or Intraplate deformation drilling, as a half-leg.

Specific Sites:

MP-(1) Intersection of the Mascarene Plateau and the Rodrigues Ridge - investigate channeled flow from hotspot toward spreading ridge through magma mixing observed in basalt compositions; age and geochemistry of basaltic rocks.

MP-(2) Northern margin of the Cargados Carajos Bank - age and geochemistry of basalts, possible evidence of continental material in basalt compositions, subsidence history in sediments.

MP-(3) Northeastern margin of the Nazareth Bank - age and geochemistry of basalts, nature of rifting away from the Chagos Bank; subsidence history.

Paleomagnetic measurements would be made on sediments and basalts to determine paleolatitudes with age to compare hotspot and geomagnetic reference frames.

These sites will also provide the necessary age documentation for comparison with Ninetyeast Ridge age progression for plate tectonic reconstructions in hotspot reference frame.

Table

Mascarene Plateau Sites		Water Depth	Site Days	Penetra. Sed.	Penetra. Bas.	Hole Type
MP-(1)	18°45'S 59°05'E	2000 m	4-5	200?	50	Rot.-Core single bit
MP-(2)	15°30'S 59°40'E	2500 m	4-5	300?	50	"
MP-(3)	13°30'S 61°30'E	2700 m	5-6	400?	50	"

Priorities:

Site surveys using SCS or MCS are needed. These can possibly be done by the DARWIN in 1986 during a funded expedition to the Rodrigues Ridge. Gravity and magnetics are available for many tracks near these sites from the L-DGO central databank.

Site Summary

Position	Site	Water Depth	Drill Depth	Hole Type	Drill. Days	Objectives/Targets
North	KHP1	660	900	HFC/Rot	8	Sample Neogene sequences and major unconformaties
North	KHP3	570	1670	HPC/Rot Reentry	18	Sample Paleogene/ Cretaceous and basement
North	KHP4	990	700	Rot	(6)	Alternative basement site for KHP3
Central	KP2	1200	700	HPC/Rot	6	Sample sediments/ basement
South	KP10	1300	400	HPC/Rot	4	Sample Paleogene sediments to date faulting; also basement on far southern flank
South	KP12A	2650	500	HPC/Rot	10	Sample Neogene sediments and basement on far southernflank
South	KP5	1600	1500	HPC/Rot Reentry?	11	Sample Eocene to recent section and major unconformities
South	KP6	1900	1000	HPC/Rot	9	Sample Paleogene/ Cretaceous and basement
Flank(S)	KP11	4600	700	HPC/Rot	10	Sample deep water-flanking sediments; date oldest ocean crust
Flank(N)	PHP5	2300	740	HPC/Rot	9	Sample Neogene (only) sediments

KHP Prefixes: Schlich et al., May 1985.
KP Prefixes: Coffin et al., August 1985.

Total days: 85

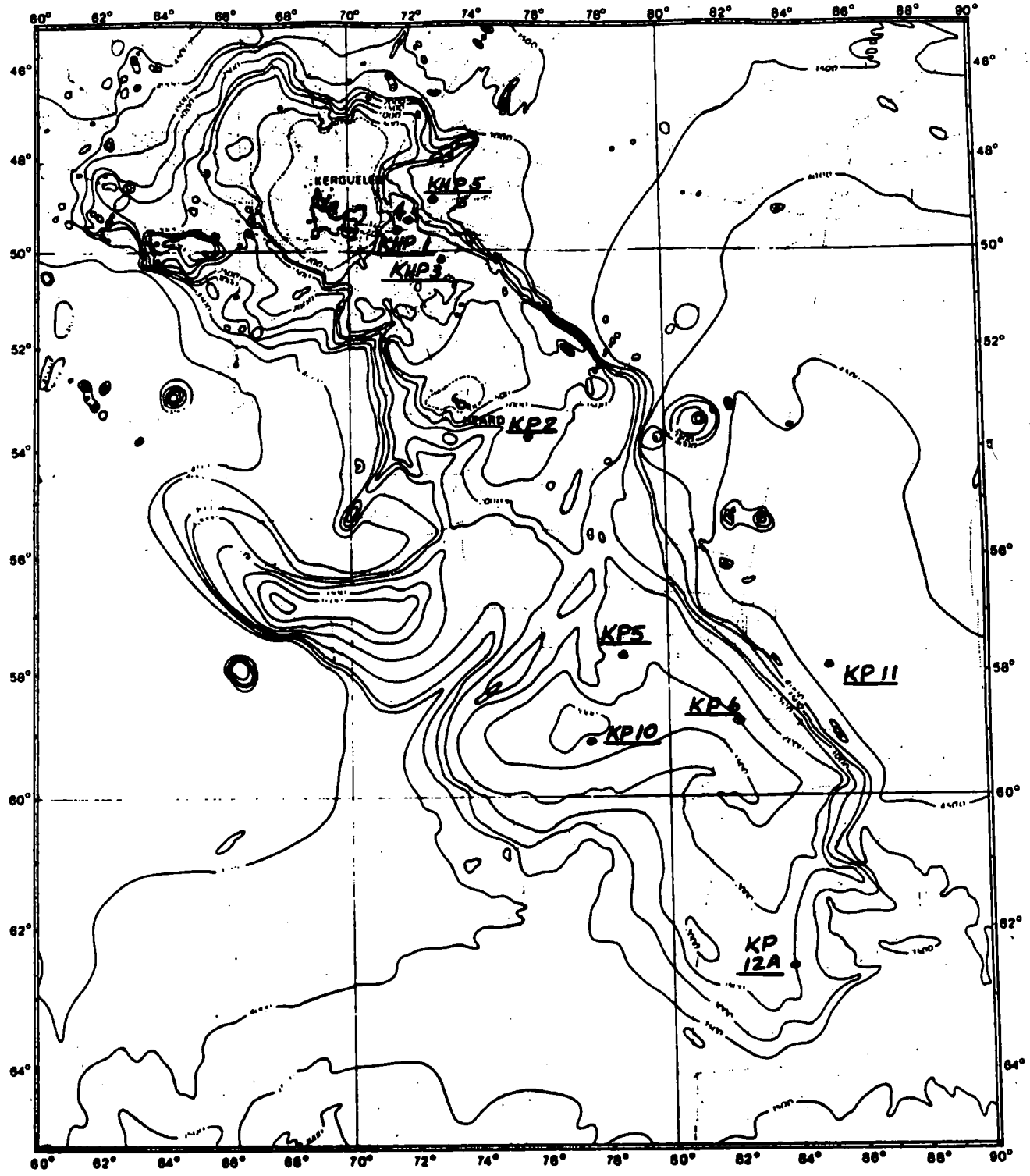


Figure 1 : Bathymetry of the Kerguelen-Gaussberg Ridge, 500 m contour interval (after Houtz et al., 1977 ; Schlich, 1982, and Schlich et al. 1983).

Summary of the Kerguelen-Gaussberg Ridge Drilling Program

The Indian Ocean Panel proposed a two-leg drilling program on the Kerguelen-Gaussberg Ridge. The first leg should be devoted to the northern Kerguelen area and the second leg to the southern Kerguelen area.

The northern Kerguelen drilling program is based on the Schlich et al. proposal (136C). The southern Kerguelen drilling program will be elaborated from the results of the Australian survey performed in April 1985 and from the French survey in January-February 1986. The present site locations are tentative. The continental or oceanic nature of the Kerguelen-Gaussberg Ridge is still a matter of controversy. It has recently been shown by SEASAT and MCS data to be much more complex than previously thought, and continental-type basement rocks have been dredged in the southern area.

The Kerguelen-Gaussberg Ridge is a broad topographic high which extends over 2000 km, between 46^{0} and 64^{0}S in a northwest-southeast direction, about 300 to 500 km across and stands 3 to 4 km above the surrounding seafloor. The ridge can be divided in two distinct domains. The northern sector, between 46^{0}S and 55^{0}S, corresponds mainly to a shallow area above 1000 m which supports the islands of Kerguelen and Heard. The southern sector between 58^{0}S and 64^{0}S lies at a greater depth generally below 1000 m, and shows a much more subdued topography with at least one major "rift and drift" composite basin. The central sector which corresponds to the transition zone between 55^{0}S and 58^{0} exhibits a rather confused topography with a large east-west spur (Elan Bank) which extends westwards from the ridge over a distance of 600 km and which appears conjugated to the Diamantina Fracture Zone.

Objectives:

The nature, the evolution and the paleoenvironmental history of the Kerguelen-Gaussberg Ridge can be determined by deep sea drilling. The major objectives include:

- the nature and age of the basement. Sampling the basement with sufficient penetration along the entire length of the ridge (minimum of three basement sites) is of paramount importance to assess the nature of the ridge and to decide between different modes of origin;

-the nature and age of the different sedimentary sequences with the age of the oldest clastic deposits;

- the age of the major discordance that dates the rifting between Kerguelen-Heard Plateau and Broken Ridge;

- the pre-rifting and post-rifting subsidence history of the ridge.

For the northern sector of the Kerguelen-Gaussberg Ridge three sites have been selected (see proposal by Schlich et al.):

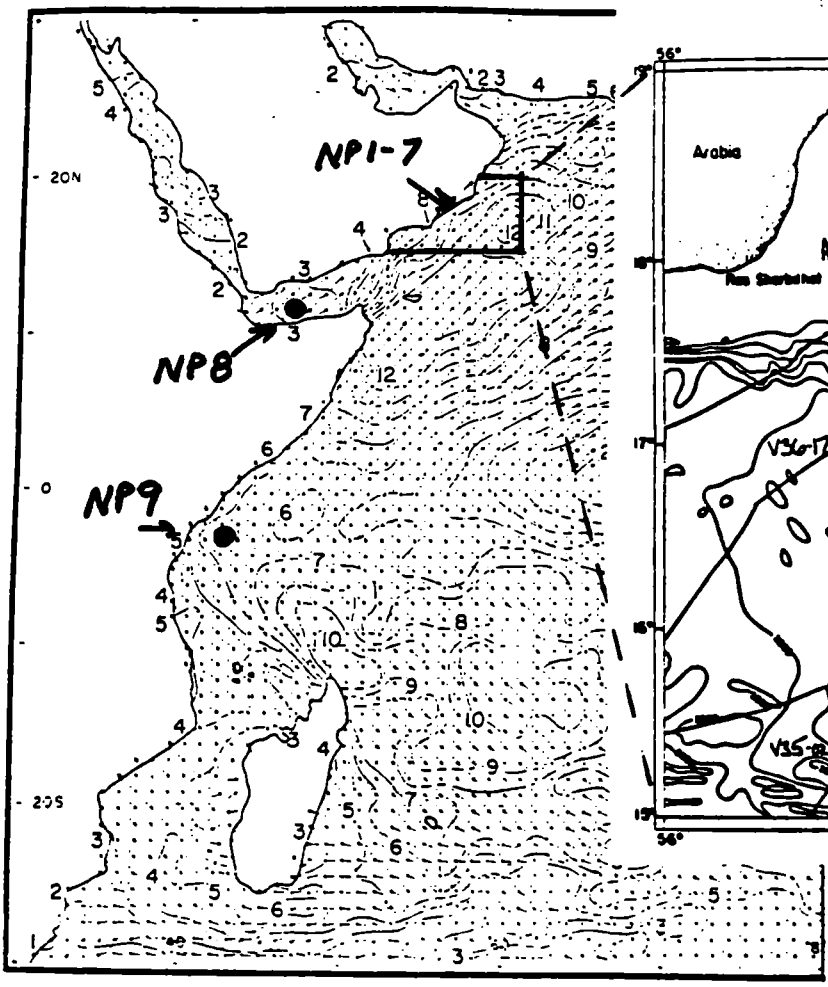
- Site KHP 1 to sample the Neogene (S1 and S2) sequences and the major discordance (A). Water depth 660 m, about 900 m continuous coring; time estimate about 8 days.

- Site KHP 3 to sample the major discordance (A), and the Eocene to Cretaceous (I1 and I2) sequences and basement. Water depth 570 m, about 1700 m continuous coring (sediments) and 50 m basalt penetration; time estimate about 18 days (reentry).

- Site KHP4 alt. to sample basement (alternate basement site to KHP3). Water depth about 990 m, about 700 m continuous coring (sediment) and some basalt penetrating; time estimate about 6 days.

- Site KHP5 to sample the deep water Neogene sequences and the major discordance (A). Water depth 2310 m, about 750 m continuous coring; time estimate about 9 days.

For the central and southern sections of the Kerguelen-Gaussberg Ridge six sites have been selected tentatively (see proposal by Coffin et al., 185C). These sites will be relocated after considering the January-February 1986 French site survey and the processed Australian seismic data.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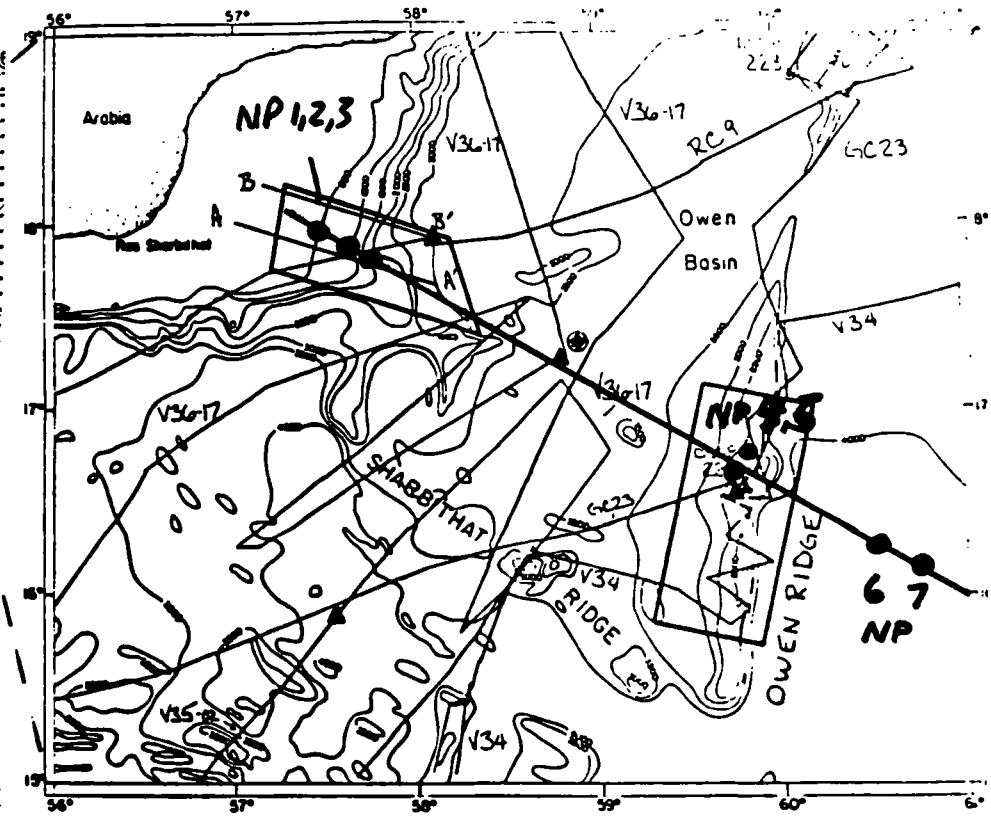
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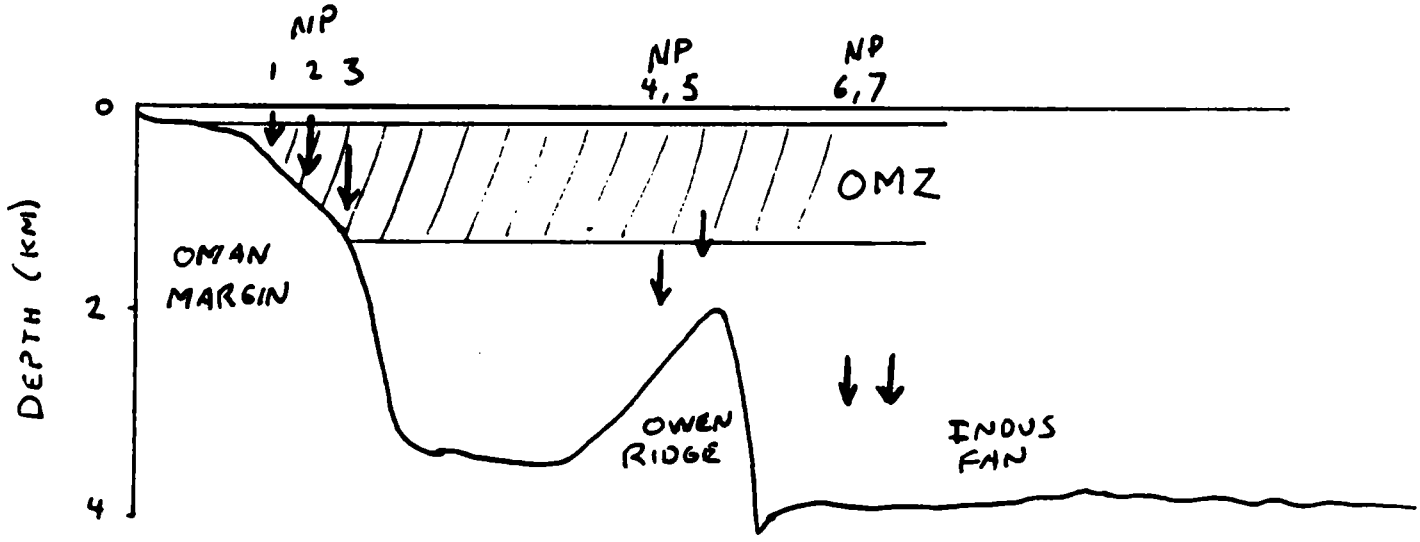
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SUMMARY OF THE DRILLING PROGRAM FOR NEOGENE EVOLUTION OF THE INDIAN OCEAN MONSOON AND ITS RELATION TO MILANKOVITCH RADIATION CHANGES, MOUNTAIN BUILDING, AND THE EVOLUTION OF MAN

The paleoclimatic history of tropical Africa, the northern Indian Ocean, and southern Asia is dominated by the evolution of the Indian Ocean monsoon. The monsoon circulation causes seasonal upwelling along Arabia, transports terrestrial dust into the Arabian Sea, and controls the precipitation budget of tropical Africa and southern Asia. Long term variation of these climatic and geologic processes relfect changes in the solar radiation budget of the Northern Hemisphere (i.e., Milankovitch orbital cycles) and terrigenous boundary conditions such as the elevation of the Tibetan Plateau. Hence, the coastal upwelling, the productivity of the Arabian Sea, the eolian transport, the growth of the Indus Fan, the history of the oxygen minima zone, and the vegetation history of the surrounding continents are all affected by the intensity of the Indian summer monsoon. This confluence of atmospheric, oceanic, and geologic processes gives rise to a number of important problems that can be uniquely addressed by drilling in the northwestern Indian Ocean.

Briefly, the major topics and objectives include:

1. What is the history of Neogene monsoonal upwelling and how does it vary in response to changing radiation budgets? The role and evolution of the Indian monsoon as a major component of the global climate is a major unanswered question in paleoceanography/paleoclimatology.

2. What is the depositional and diagenetic history of the highly organic rich sediments deposited in the oxygen minima zone (OMZ) beneath the zone of proximal upwelling? These sediments are expected to contain annual laminations (such as the gulf of California) which will address questions of interannual and decadal variability and stability of the OMZ.

3. How does the growth of the Indus Fan record the uplift of the Tibet-Himalayan complex, the depositional history of the fluvial Siwaliks of Pakistan, and climate related changes in eustatic sea level?

4. How is the evolution of hominid/hominoids related to climate changes caused by the uplift of mountains and changes in monsoonal precipitation?

Proposed Sites

To address these problems, we propose an integrated transect of seven sites in the Western Arabian Sea and additional sites (2) in the Gulf of Aden and off East Africa. Briefly, these are:

1. Oman Margin sites (NP 1, 2, 3)

An HPC depth transect along the upper slope that crosses the oxygen minima zone and within the zone of proximal upwelling. Sediments are organic rich and are expected to contain annual laminations. Due to high accumulation rates, penetration of 200M is expected to obtain only Plio-Pleistocene age sediments. Proposal 31 of IOP. Survey to be completed 5/86.

2. Owen Ridge sites (NP 4, 5)

Two HPC/XCB sites to obtain a Late Neogene high resolution history (around 10 MY) of upwelling and eolian deposition related to the Indian Ocean summer monsoon. Sites are located within the upwelling zone but above the effects of bottom processes on the margin and Indus fan. Proposal 30 of IOP. Survey to be completed 5/86.

3. Indus Fan sites (NP 6, 7)

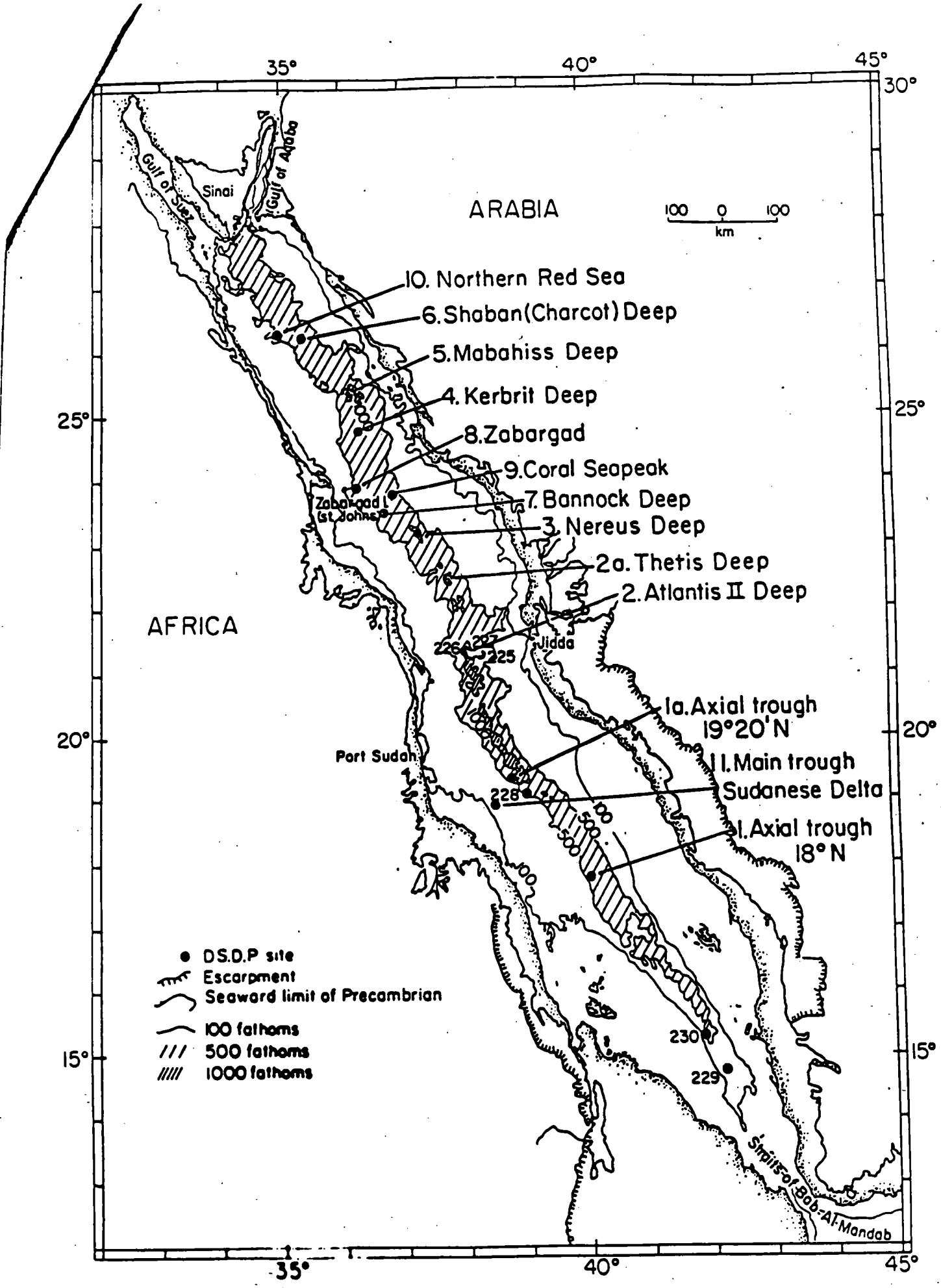
Two HPC/XCB sites on the westernmost midfan to obtain a relatively continouus record of fine grained sediments that record the growth history of the fan. Sites to be located away from major channels on midfan to avoid sand lobes in the distal fan. Survey to be completed 5/86. Proposal reflects aspects of IOP proposals 14, 20, 33, 51, and 976.

4. Gulf of Aden (NP 8) and East Africa (NP-9)

One HPC/XCB at each site to recover the sequence of terrestrial components, such as pollen and volcanic ash, originating in East Africa within a well dated (bio-magneto stratigraphy) marine sediments. Comparison of the marine and continental paleoclimate data with the stratigraphy of hominid deposits is expected to give insights into the role of large scale climate changes in hominid and mammalian evolution. Proposal 68 of IOP.

	#	Approximate Lat	Long	Water Depth (M)	Penetration (M)	Site Time (Days)	Type	
Oman	NP 1	17 30N	57 45E	500	200	1	HPC	Double HI
Margin	NP 2	"	"	1000	200	1	HPC	"
	NP 3	"	"	1500	200	1, 5	HPC	"
Owen	NP 4	16N	60E	2500	600	8	HPC/XCB	Double HPC
Ridge	NP 5	"	"	3000	600	8	HPC/XCB	"
Indus	NP 6	16N	61E	4000	600	9.5	HPC/XCB	Double HPC
Fan	NP 7	"	"	4000	600	9.5	HPC/XCB	"
Aden	NP 8	12N	47E	2000	600	6.5	HPC/XCB	Double HPC
East Africa	NP 9	5S	42E	3000	600	8.0	HPC/XCB	Double HPC
						53.0		

Northward Leg Sites	Water Depth	Site Days	Penetration (m) Sed.	Bsm't	Hole Type
1. 17.5°N 1st hole 4-5 m.y. seafloor	1800 m	7	100-300	50-100	Rot. Core
2. Nereus Deep "Natural Lab."	2300	8(+)	30-50	200	Rot. Core Re-entry site
3. Bannock Deep	1500	5	100	100	Rot. Core
4. Main Trough 24°21'N	1125	5	200-300	---	Double HPC
5. Mahabiss - SW	1000-1100	4	200	150	Rot. Core
6. Mahabiss - NE	1500	5	400	100	Rot. Core
7. Shaban Deep	1500	5	100	100	Rot. Core
Southward Leg Sites					
8. Zabargad Mantle Site	500	4	200	150-200	Rot. Core
9. Near Zabargad off axis basement site (lowest priority site)	500	4	200	150-200	Rot. Core
10. Sudanese Delta	500	5	200-300	---	Double HPC
11. 17.5° 2nd Hole 2-3 m.y. seafloor	1800	7	100-300	100	Rot. Core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5. Mabahiss Deep
4. Kerbrit Deep
8. Zabargad
9. Coral Seapeak
7. Bannock Deep
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2a. Thetis Deep
2. Atlantis II Deep
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1a. Axial trough 19°20'N
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1. Axial trough 18°N
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228
230
229
Strait of Bab-Al-Mandab
DS.D.P site
Escarpment
Seaward limit of Precambrian
100 fathoms
500 fathoms
1000 fathoms

Summary of the Red Sea Drilling Program

The Red Sea Working Group met at IFREMER, Brest, France on September 23-25, 1985. A proposed drilling program for one leg of work in the Red Sea (~ 60 days including transit) was developed. This program is based around four themes, two of which can be uniquely addressed in the Red Sea and are of general interest in understanding the Earth.

These two are:

1. Evolution of the lithosphere through the transition from continental rifting to seafloor spreading as expressed by the nature of the igneous rocks produced at different stages in this process.
2. Hydrothermal activity and metallogenesis. The Red Sea offers an opportunity to establish a "natural laboratory" in an active hydrothermal system, as well as to investigate fluid hot rock interactions and the basement alteration.

Two other themes are related to priorities established by OPD panels. These are:

1. Miocene and holocene paleoenvironments and paleo-oceanography. The particular objective is a study of Red Sea sapropels.
2. Mantle Section. The Red Sea presents an opportunity to obtain an unserpentized and undepleted mantle section.

A program was developed around those themes consisting of about 10 holes and about 50 days of on-site drilling. Roughly eight days of transit are required for a Djibouti-Djibouti leg so that the program consists of a standard length (57-60 days) O.D.P. leg.

The sites which are proposed are as follows:

1. Transition from continental to oceanic drilling.
   a) 17°-18°N - Axial trough (1, possibly 2 holes)
      4-5 m.y. old sea floor (1st hole)
      2-3 m.y. old seafloor (2nd hole)
   b) Nereus Deep - Northernmost seafloor spreading cell of propagating rift - This is an active brine deep and thus the basalts are likely to be altered and more useful for hydrothermal and metallogenesis studies.
   c) Kannock Deep - Southernmost of the small northern Red Sea deeps that have not reached the stage of seafloor spreading.
   d) Shaban (Jean Charcot) Deep - The most northern of the small northern deeps at which igneous rocks can be sure to be reached.
   e) Mahabiss Deep - seafloor spreading cell initiated under different circumstances then the southern deeps (nucleation point as opposed to propating rift tip.
      2 sites: one on SW side, one on NE side

2. Hydrothermal activity and metallogenesis.
   a) Nereus Deep - An active hydrothermal system in which a re-entry cone will be placed to establish a natural laboratory. Objective here is not sediments, but rather to drill 200m into basement rock to study plumbing of a hydrothermal cell and rock fluid interactions.
3. Pliocene-Holocene paleoenvironment - Paleooceanography.
   a) Main trough 24°21'N - high resolution biostratigraphy and sedimentology through the Holocene-Pliocene sedimentary sequence.
   b) Sudanese delta - second site in shallower water to test origin of Red Sea sapropels.
4. Mantle Section - Fresh, unserpentinized mantle periodotites are exposed on Zabargad Island and the submarine ridge extending away from the island presents an opportunity to obtain a section of unserpentized, undeplated mantle.

Priorities

The working group prioritized its sites in terms of where they would b carried out on a leg from Djibouti to Djibouti with higher priority sites o the way north and lower on the way south. They are listed geographically in the order they would be done on such a program with estimated times and some details.

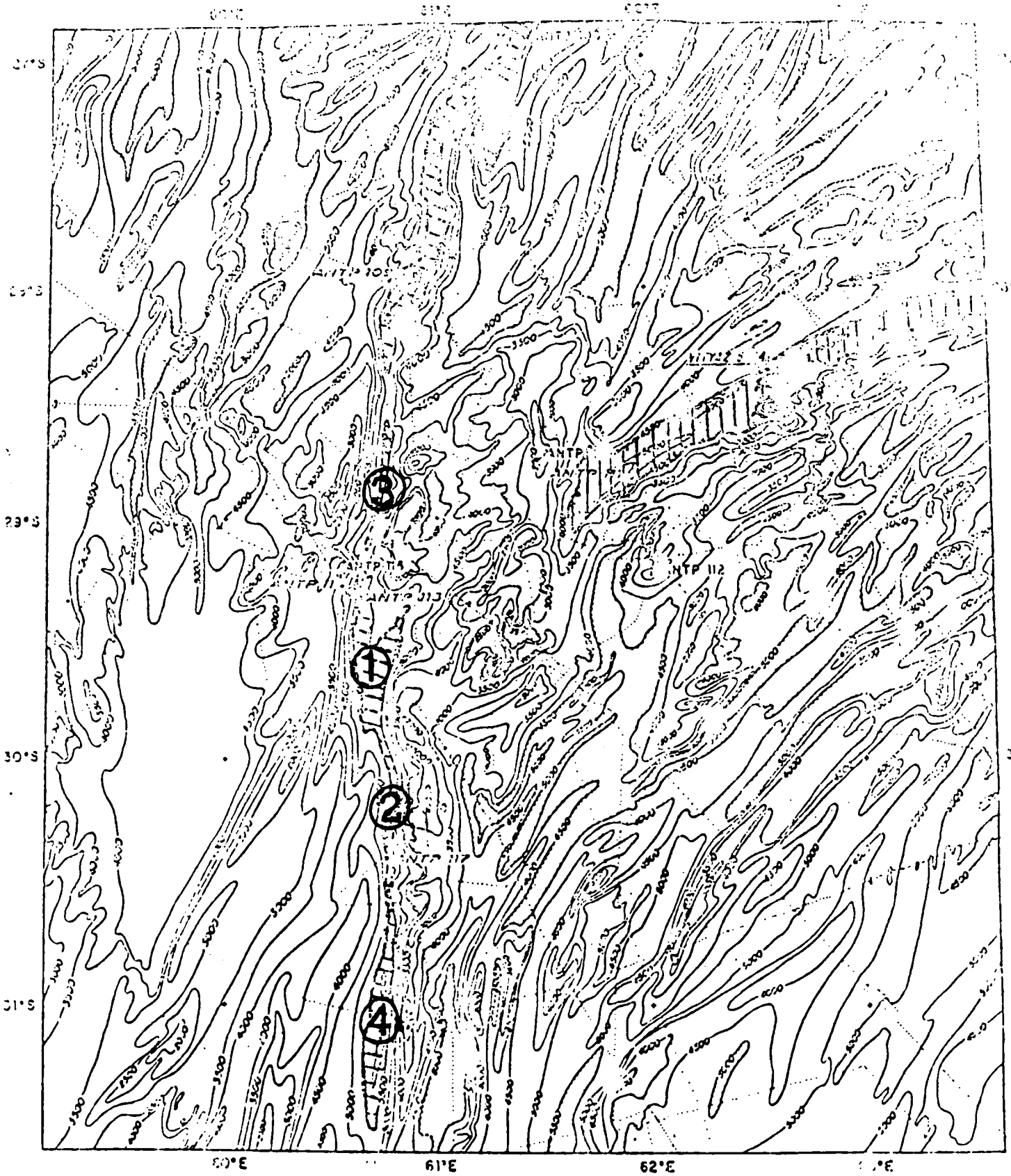


Figure 10. Topography and d :dge localities, "Melville Fracture Zone" and environs. *Vityaz* station 5324 is near 28°30'S, 62°30'E. Contouring as Figure 2.

Proposed fracture zone drilling sites SWIR-1,2,3,4.

Figure 6

From Engel and Fisher (1975)
GSA Bulletin

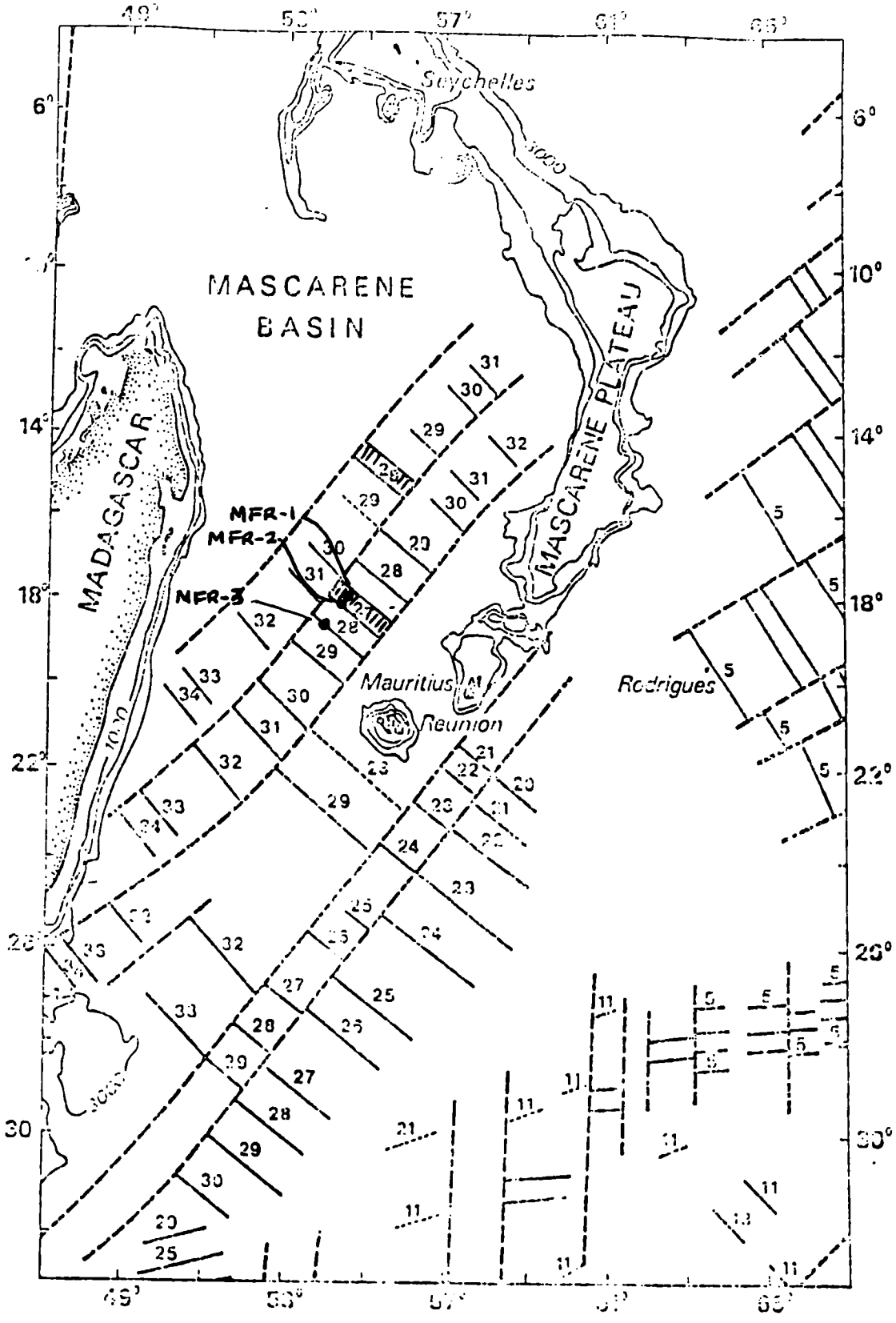


Figure 4 : Fracture zones and magnetic lineations in the Mascarene Basin. Location of the Paleocene fossil ridge (Schlich, 1982 ; Patriat and Schlich, in press), with proposed drilling sites MFR-1, MFR-2, MFR

Summary of the Southwest Indian Ridge and Mascarene Fossil Ridge Drilling Program.

Principle Objectives:

This, the first leg in the Indian Ocean, will examine two specific problems.

1. To drill mantle peridotites as close to the actual plate boundary as possible and to determine the shallow mantle stratigraphy and variations in crustal structure along the floor of a fracture zone.

2. To investigate the compositions of basalts erupted just prior to an abrupt cessation of spreading in Paleocene time in the Mascarene Basin and to relate these to neighboring basalts erupted at a normal spreading ridge segment.

A program was developed around these themes consisting of 7 sites and 42 days of drilling and 10-15 days of transit.

Specific Sites:

The first program on this leg will be 4 sites at the Melville Transform fault at 29°S 61°E on the SW Indian Ridge.

These 4 sites are single bit holes along the length of the transform fault at:

SWIR1 29°40'S 60°40'E
SWIR2 30°05'S 60°47'E
SWIR3 28°55'S 60°45'E
SWIR4 34°05'S 60°40'E

They have been chosen to sample the expected ultramafic material that will be found at the base of this fracture. Almost 70% of all rock recovered from the fracture zones on the Southwest Indian Ridge were ultramafic. These 4 single bit holes in deep water (~5000 m) will take between 20 and 25 days to drill. The sites would provide information about the lateral heterogeneity in mineralogy and chemical composition of the residual mantle to basalt melting at this extremely slow spreading ridge. See proposal by Dick (1985) for further details.

The second program would require three sites on and near an extinct Paleocene (anomaly 28) spreading ridge segments in the Mascarene Basin. The first site would be drilled at the ridge crest to recover the basalts erupted just before spreading stopped. A second site located a small distance off-axis would provide basalts erupted during the slowing of spreading. The third site, across a transform fault and into normal oceanic crust would recover a reference suite of basalts for Paleocene MORB composition. The variation in full spreading rates at these three sites is from 18

cm/yr at the reference site to 0 cm/yr at ridge crest cessation. See proposal by Schlich et al. (1985) for further details.

The specific locations of these sites are:

MFR-1 ~18°S 54°E
MFR-2 18°S 54°E
MFR-3 18°50'S 58°30'E

TABLE 1

Southwest Indian Ridge Transform Fault		Water Depth	Site Days	Penetration Sed.	Penetration Basalt	Hole Type
SWIR1	29°40'S 60°40'E	5500 m	6	50	≥50	Rot. Core, single bit
SWIR2	30 15 S 60 47 E	5500 m	6	50	≥50	"
SWIR3	28 55 S 60 45 E	5500 m	6	50	≥50	"
SWIR4	31 05 S 60 44 E	5500 m	6	50	≥50	"
Mascarene Fossil Ridge						
MFR-1	18°S 54°E*	3500 m	6	100?	50	"
MFR-2	18°10'S 54°E	3500 m	6	?	50	"
MFR-3	18°50'S 53°30'E	4500 m	6	?	50	"

*precise location to be determined

APPENDIX M

CEPAC Summary, 1985

March 11-12, 1985, Menlo Park, California.

A) Liaison reports from other panels PCOM, ODP, and USSAC; workshop report from INPAC and plans for others.

B) Considered plans and proposals for 1986 drilling in the east Pacific and evolved the following ranking:
   1) Peru margin tectonics and paleoceanography
   2) EPR 13°N (2 Legs)
   3) 504B with Motti proposal, as backup to 13°N work if no bare-rock drilling

C) Presentation by H. Okada of topics of interest to the Japanese community. Those in the CEPAC domain are:
   1) Cenozoic paleoceanography
      a) Oyashio-Kuroshio interaction
      b) tephrochronology
      c) major west Pacific hiatus
   2) Old Pacific
      a) Mesozoic geologic history and paleoceanography

D) Review of Pacific Ocean geologic history by several presenters.

September 25-26, 1985, Roche Harbor, Washington

A) Liaison reports from other panels, PCOM, ODP, and USSAC; workshop results from INPAC and NORPAC (held Sept. 22 to 24).
   1) CEPAC expressed formal concern over delay in staffing the publications group at TAMU

B) Panel discussed the return to 504B, scheduled because enough bare-rock guide bases were not available to complete 13°N program.
   1) CEPAC recommended that the sedimentary section near 504B be double-HPC cored to recover the outstanding paleoceanographic record there.
   2) Several suggestions for Co-chief Scientist for 504B work were made.

C) Data and proposals pertinent to the Peru program were presented by D. Hussong.
   1) CEPAC recommended that the entire Leg be devoted to the Peru effort and that the high latitude sites suggested by J. Hays be deferred.

D) Panel entered into a long discussion of the general objectives of Pacific drilling that resulted in a listing and ranking of significant problems that can be resolved by ocean drilling (attached).
   1) CEPAC emphasizes that:
      a) the list and rankings are preliminary and will change;
      b) multi-objective sites are strongly encouraged and several of the listed problems can "piggy-back" at one location;
      c) enough first-rank problems exist to keep the ship in the Pacific beyond its scheduled departure time.

E) The fall meeting ended with discussions of membership.
   1) CEPAC repeats its request to have a Cenozoic biostratigrapher/paleoceanographer appointed to it.
   2) D. Rea agreed to serve as next CEPAC chairman pending PCOM approval.
   3) T. Shipley was given a vote of thanks for getting CEPAC organized and running smoothly.

Preliminary CEPAC Ranking of Major Pacific Drilling Themes
26 September 1985

The following list was compiled of the major Pacific problems relevant to the drilling program. The list is a collection of themes rather than discrete drilling legs. Site selection should provide some economy by locating holes for multiple objectives. Even so, it is clear that the number of important objectives far exceeds time presently allocated for drilling in the Central and Eastern Pacific.

The list and rankings (low points equals high rank) are subject to revision as the themes become more defined. We have indicted the approximate time needed for each theme and the extent of surveying still required.

	Total Points	Months	Surveys
EPR 13°N - Crustal formation at fast-spreading (115 mm/y) ridge. Hydrothermal processes (high temperature tools needed). Bare rock site. LOBO site.	11	4	
Juan de Fuca-Gorda sedimented ridge - sulfide mineralization, organic diagenesis, vertical tectonism, crustal alteration (high temperature tools necessary). LOBO site.	13	2	
Old West Pacific - Sedimentary record of Mesozoic oceans. Mid-plate, mid-Jurassic to mid-Cretaceous plate evolution and history, especially volcanism.	14	2	MG&G and MCS needed
Superchron plate rearrangements - M-series to Anom 32 tectonic shifts, Hess-Emperor-Chinook. Ridge jumps in Mendocino-Murray and Clarion-Clipperton regions. Ages and extents.	14	2	MG&G needed
Oregon/Washington/British Columbia margin - Queen Charlotte terrace and northward transport. Landward vs. seaward dipping thrusts. Dewatering, diagenesis, physical properties & mechanics of subduction.	15	4	[illegible] +MCS needed
North Pacific Pelagic Problems - Mesozoic ocean equatorial productivity record - Paleogene carbonates, Neogene onset of siliceous deposition. Boundary currents and upwelling. High latitude biostratigraphy to provide "link to the land". Piggy-back studies include ice-rafting, hydrothermal history, eolian deposition, tephrochronlogy.	16	4	MG&G needed
Aleutian convergence, past and present - Underthrusting and accretion. Arc development vs. modeled history.	16	2	OK

Emperor encore - hopping hotspots. Magma variation and age at North end. Shift in hotspot paleolatitude.	17	2	MG&G needed
Juan de Fuca-Gorda simple linear ridge - Crustal formation at moderate spreading (60 mm/y) ridge. Hydrothermal processes (high temperature tools needed). Bare rock site. LOBO site.	17	2	OK
Chile triple junction - Tectonics and evolution of sedimented ridge-trench-trench triple junction.	17	2	MCS needed
Gulf of California, pelagic pressure cooker - Sills, organic diagenesis, hydrothermal circulation.	17	2	OK
Carbonate banks and atolls - old Darwin rise, late Cretaceous subsidence.	20	4	Fair, MCS needed?
Pacific plateaus - What is basement and its age, magma evolution, paleolatitude.	20	2	?
Bering Sea tectonics and sedimentation history - Sounder ridge, Umnak Plateau, Komandorski and Kamchatka regions.	20	2	Fair
Cenozoic equatorial carbonates - Ontong-Java depth transect, $CaCO_3$ to opal latitudinal transition, acoustic interpretations, paleoproductivity.	22	2	Fair, needs digital seismics
Gulf of Alaska sedimentation and tectonics - Yakutak block accretion, TACT extension, Shumagin subsidence.	23	2	OK
EPR 20°S - Crustal formation and super-fast (160 mm/y) spreading ridge. Hydrothermal processes (high temperature tools needed). Bare rock site. LOBO site.	24	4	MG&G needed
South Pacific Plate evolution - south of island chains. Tectonic and volcanic history.	24	2	MG&G needed
Costa Rica margin - deep hole in accretionary prism, examine underplating styles of accretion, Duplex test (drill-in casing required).	25	2	3-D MCS survey scheduled in 1987
High southern latitude pelagic problems - Paleoceanography and polar cooling.	25	4	MG&G needed
Alaskan clastics - Aleutian/Alaskan plain turbidites and fan chronology, Meiji sediment tongue.	26	2	OK
California margin - Borderland basins, transform margins, fan facies.	29	2	OK

APPENDIX N

DMP EXECUTIVE SUMMARY 1985

JAN 2 7 1986

DMP Goals

1. Establish a state-of-the-art borehole measurements capability within the Ocean Drilling Program.

2. Acquire a worldwide marine logging data base.

3. Expand the role of geophysics and borehole measurements in the Ocean Drilling Program by sponsoring sites and legs of interest to the borehole measurements community.

Implementation

To achieve the first goal, the Panel advocates a 3-pronged approach:

1. Contract with industry for the best available commercial logging services. This has been achieved by LDGO through an extremely favourable contract with Schlumberger under which Schlumberger maintains and operates their most advanced field equipment from the D/V JOIDES Resolution while the Project provides a test platform for the company's experimental tools.

2. "Organized" equipment upgrades by LDGO. Many modifications or pieces of equipment needed by the Program are too specialized for commercial development or too complex and expensive for development by individual investigators; these must be developed directly or through subcontracts let by LDGO. This effort has been partially successful: the Panel's highest priority tool(wireline heave compensator) has been built and deployed but budget cuts have prevented or seriously delayed the development and deployment of all remaining tools on the Panel's high priority list (wireline packer; digital BHTV; multichannel sonic).

3. Equipment from individual investigators. To encourage both the introduction of new equipment and the widest participation in the Program, the Panel has endorsed and, in many instances, solicited proposals from individual investigators to develop and operate the following tools:

Straddle Packer
3 Axis Magnetometer
Magnetic Susceptibility
HPC Water Sampler
VSP
Oblique Seismic
Large Scale Resistivity
Geotechnical
Wireline Re-entry

With the exception of the wireline re-entry and borehole geotechnical instrumentation proposals, all have been funded. Proposals are currently being sought for high temperature logging, geotechnical tools and a borehole gravimeter.

To achieve the second goal (a comprehensive marine logging data base), the Panel adopted a "400 meter rule" stating that all holes over 400 m deep should be logged. As an aid to the scientific party on each leg, the Panel has instituted a review of the sites and objectives of each leg and designs a downhole measurements program for each site which is tailored to meet the objectives of the leg.

From its inception, the Panel has felt that, in addition to its role as a service panel, it has a responsibility to serve as a thematic panel for the field of geophysics. To this end the panel sponsored and manned Leg 102, is currently sponsoring the geophysical studies planned in Hole 395A on Leg 109, has proposed a return to Hole 418A to deepen the hole into the dikes and complete the borehole studies begun on Leg 102, and endorses the drilling and logging efforts proposed at Site 504 and on the East Pacific Rise (Leg 111).

Special Projects

1. High Temperature Logging. Since many of the objectives of bare rock/hydrothermal drilling can only be met if high temperature logging equipment is available, the Panel has set itself the task of locating and securing such equipment for ODP use. An extensive suite of gear is now available for Leg 111 (Appendix 1).

2. Hydrogeologic Testing for Leg 110. Four sets of hydrogeologic measurements (in addition to routine logging) are considered critical to the success of the leg: pore pressure/in situ stress, water sampling, temperature and borehole geotechnical. Current capabilities are as follows:

- Pore pressure/in situ stress. Two packers (Lynes, TAM) will be available for pore pressure and stress measurements. Stress orientation can be measured with the BHTV.

- Water sampling. The TAM wireline packer will not be available (see above) but interstitial water can be obtained using the Barnes tool and satisfactory samples can be obtained from the aquifer (if it's overpressured) using the Barnes sampler and the PFS sampler.

- Temperature. Satisfactory measurements can be obtained using the HPC temperature probe, the Uyeda tool and Schlumberger logs.

- Geotechnical properties. No equipment is available. A proposal by McClelland Engineers to upgrade existing equipment for deepwater use was rejected by the NSF.

Problem Areas

1. Cuts to LDGO tool acquisition budget.

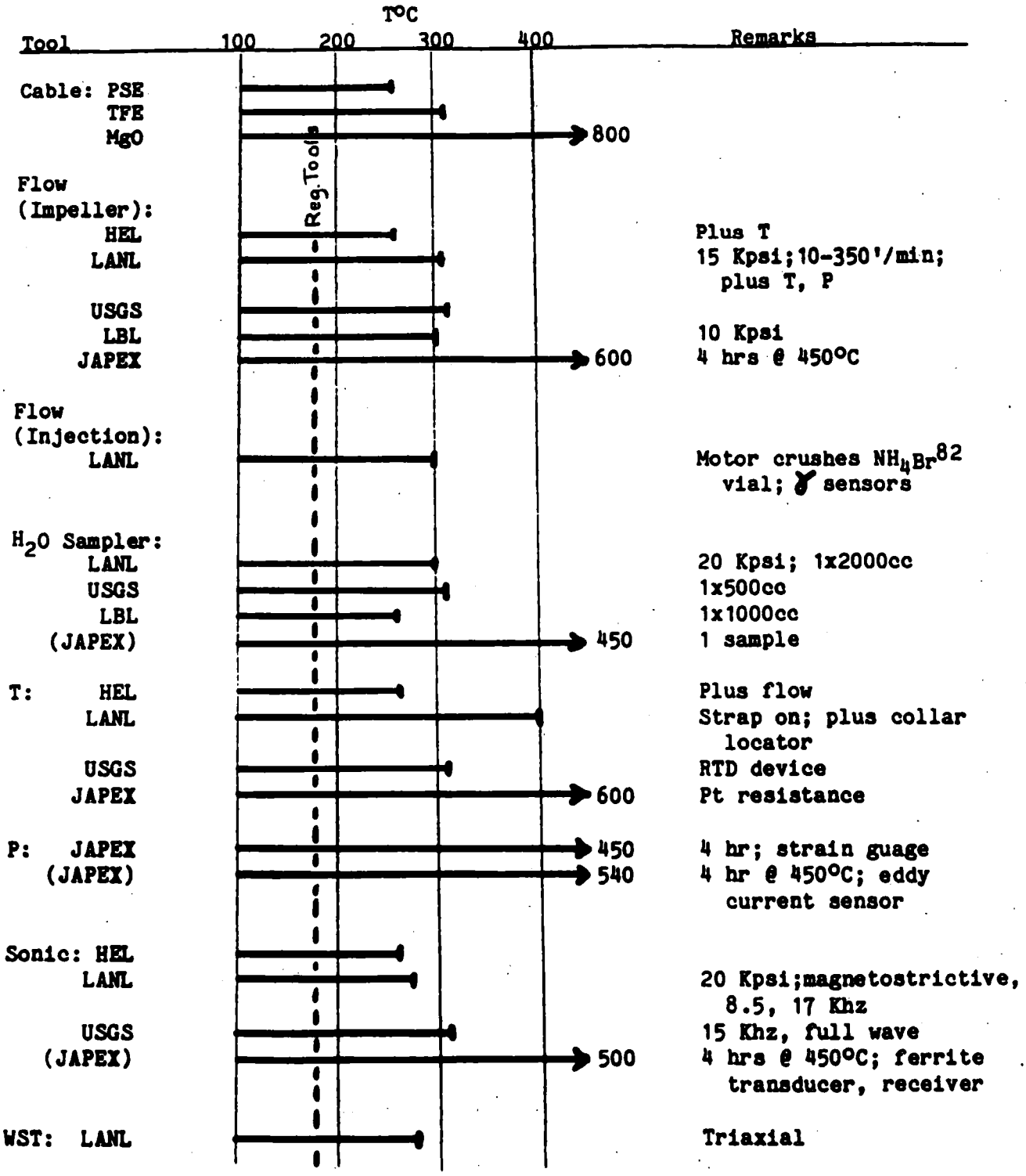
2. Long term measurements at high temperatures (electronics currently limited to about 225°C).

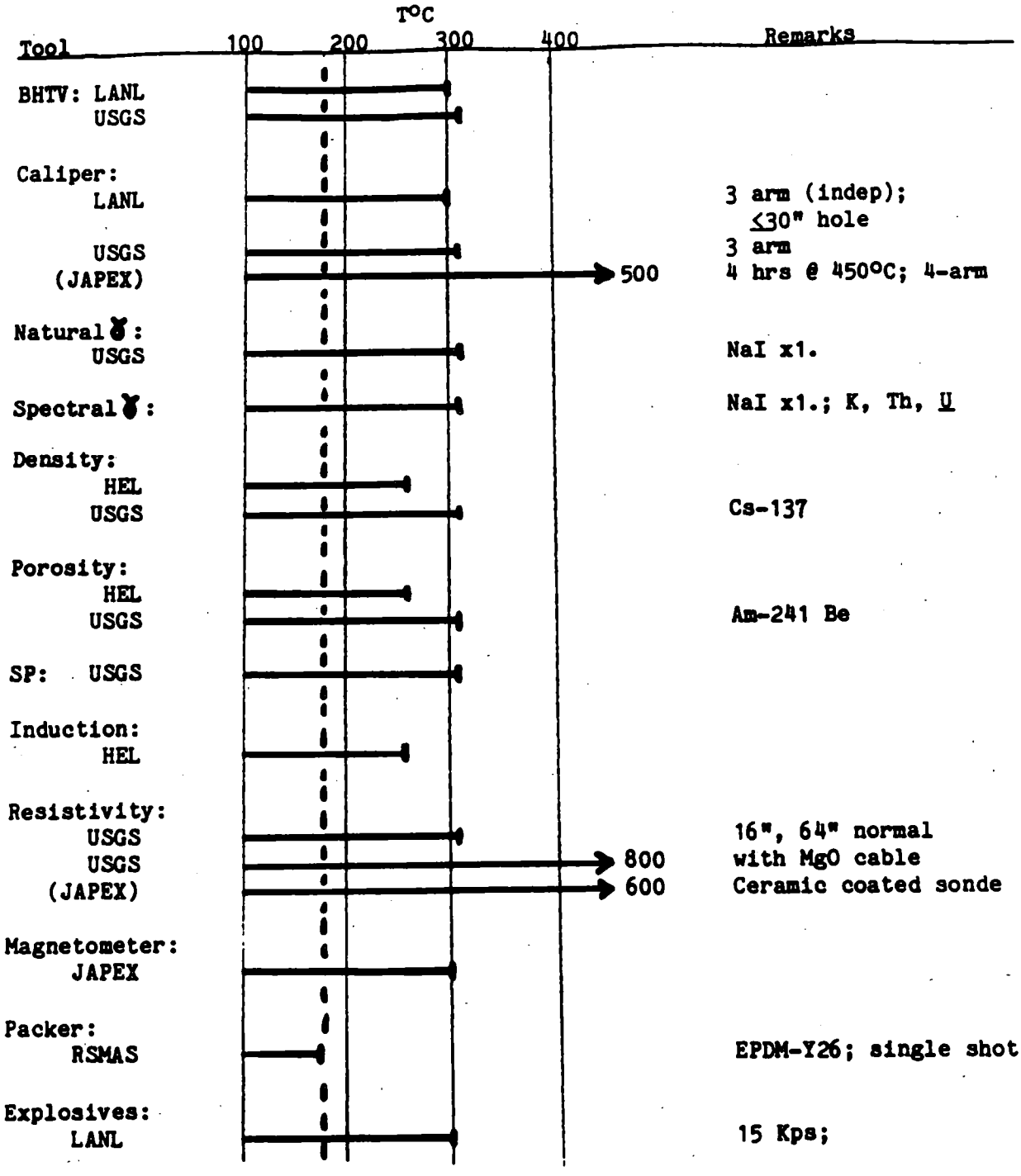
3. Need for geotechnical/physical properties and geochemical working groups.

APPENDIX 1

OPERATIONAL HIGH TEMPERATURE TOOLS

$d \leq 3\text{-}1/2"$, $P \geq 7500$ psi




T°C
100
200
300
400
Tool
Remarks
BHTV: LANL
USGS
Caliper:
LANL
3 arm (indep);
≤30" hole
USGS
3 arm
(JAPEX)
500
4 hrs @ 450°C; 4-arm
Natural γ:
USGS
NaI x1.
Spectral γ:
NaI x1.; K, Th, U
Density:
HEL
USGS
Cs-137
Porosity:
HEL
USGS
Am-241 Be
SP: USGS
Induction:
HEL
Resistivity:
USGS
16", 64" normal
USGS
800
with MgO cable
(JAPEX)
600
Ceramic coated sonde
Magnetometer:
JAPEX
Packer:
RSMAS
EPDM-Y26; single shot
Explosives:
LANL
15 Kps;

1985 ANNUAL REPORT OF SITE SURVEY PANEL

J.W. PEIRCE, CHAIRMAN

DECEMBER, 1985

During 1985 the Site Survey Pannel (SSP) met in June in Halifax and in November in Tokyo.

In order to provide a consistent set of guidelines for the planning and assessment of site surveys, the SSP finalized and refined the Site Survey Data Standards matrix (p.65 in the special issue of JOIDES Journal). Further amplifications to it are being written, based on our experience from hands-on assessment of site surveys this year.

The site survey data for the Chile Triple Junction was formally reviewed in April and found to be clearly inadequate. As no additional site survey was possible, plans for drilling there have been dropped.

At the June meeting the SSP agreed to take on the responsibility of formally assessing the site survey data sets for each drilling package, beginning with Leg 110. Because of the extra work load of this responsibility, the SSP requested a second member from the U.S. (Langseth and Duennebier have now replaced Orcutt) and have asked the U.S. and Japan to fill their vacant alternate positions.

To date, preliminary assessments have been done for the Peru Trench, Weddell Sea and North Kerguelen. Shortcomings have been identified, and the SSP and the Data Bank are working with the parties involved to get these gaps filled.

Advance input on site survey plans has been given for the Sub-Antarctic, Southwest Indian Ridge, Neogene Package, and Makran areas. Detailed site by site assessment forms are compiled for mature drilling proposals which have completed site surveys with the data deposited in the Data Bank. A general summary is available for the site survey status in the Indian Ocean and a panel member has been assigned responsibility to follow each major drilling package. A similar summary is in the initial stages of preparation for the Western Pacific.

The Data Bank budgeting situation is a matter of great concern to the SSP. The cuts which were imposed in FY1986 were illogical in concept and arbitrary in administration. The result will be that the Data Bank will not be able to support the ODP community to the extent demanded, and most of the cuts will be related to requests for drilling proposals and for post-cruise science. First priority needs (SSP, PPSP and Science Operator) will not be affected directly.

The SSP considers the maintenance of a well organized, centralized data base to be essential to optimize the science of ODP. The ODP Data Bank must be funded adequately for SSP and PPSP to function properly. The SSP feels that PCOM has not supported the Data Bank as strongly as it should have in 1985. We trust that more support for the Data Bank will be forthcoming from PCOM and the ODP community now that the JOI Review Committee has submitted its positive report.

JWP/ms
JWP#1

APPENDIX P

85/844

Report of the Information Handling Panel meeting,
College Station, Texas, September 9-11, 1985

Summary

1. Publications policy. The IHP restated its firm committment to a strong ODP publication program, and concluded that the two-part program adopted last year by PCOM still best meets the needs of the scientific community. To deal with the current financial shortfall the Panel endorses the conclusions and recommendations of the PCOM Publications Review Subcommittee. We recommend that (1) post-cruise conferences proceed on schedule; (2) all necessary material for Part A volumes be ready at the post-cruise conferences; (3) as a temporary expedient basic, cheaply-printed Initial Core Descriptions be produced for the early legs; (4) as Part A volumes can be completed, they are shelved to await funding for publication; (5) Part B. manuscripts be scheduled as originally planned, and shelved when received to await funding for editing and printing. The Panel concluded that ODP must maintain responsibility for publication of "Part B" peer-reviewed scientific reports by some means, and our proposal for a Part B volume seems ultimately to serve best the scientific community at a cost no higher than alternative proposals.

The IHP feels that the proposed "steady state" publications costs of $2.1 million are reasonable and in line with percentage publication costs of other large science programs. We recommend that publications be given a very high priority when and if additional funding becomes available, to facilitate earliest possible publication of Part A volumes. If anticipated improvement in funding does not occur, IHP asks to meet on an emergency basis to evaluate further options.

In our assessment, if the results of the ODP are not published in an adequate and coherent form, the Project loses its only universally visible product.

2. Logging data. IHP recommends that the routine wireline logging results be published, as edited and selected by the logging operator in consultation with the science operator, in Part A at the scale of the barrel sheets. If financial or production constraints preclude this, representative logs should be published and the presense of all logging data indicated on the core descriptions. Non-routine downhole measurements should appear as individual scientific experiments in Part B.

3. Other subjects. The following matters were also considered at the IHP meeting, and are covered in the attached report.

(a) Logging data distribution policy
(b) Appointment of a liaison to IHP from the logging operator.
(c) Sample curation policy, especially regarding requests for whole round core samples for destructive shipboard analysis.
(d) Status of ODP data bases and data aquisition
(e) Status of Micropaleontology Reference Centers
(f) Status of ODP computer services
(g) Need for representative sampling for consistent correlation

of various measurements.

(h) Relation of ODP Data Bank at LDGO to other data banks and services.

(I) Request for a Japanese representative on IHP.

ANNUAL REPORT OF THE POLLUTION PREVENTION AND SAFETY PANEL

G. Claypool, Chairman, reported that during 1985 the PPSP met in New Orleans, La. in March and in Paris, France in October.

At the March meeting the Safety Panel discussed potential safety considerations for drilling in hydrothermal areas and agreed that advice should be sought from experts (e.g. Los Alamos Laboratories) in the area of hot rock drilling. In addition, the panel examined proposed drilling sites for Legs 104 (Norwegian Sea), 105 (Baffin Bay) and Leg 106 (MARK).

Leg 104: PPSP reviewed 7 sites, approved 3 as proposed and placed conditions on the remaining 4 sites. The panel also expressed concern that previous drilling during DSDP (Site 341) demonstrated the presence of shallow biogenic gas and fluorescence suggestive of migrated hydrocarbons. For that reason rotary drilling was not approved in this area.

Leg 105: Having approved all Baffin Bay sites at the August 1984 meeting, the Safety Panel reviewed 8 prospective Labrador Sea sites. PPSP approved 4 as they were proposed, 3 with conditions and rejected 1.

Leg 106: PPSP approved both MARK-1A and MARK-1B as they were proposed.

At the Paris meeting, PPSP reviewed proposed drilling sites for Legs 107 (Tyrrhenian Sea), 108 (NW Africa), 109 (MARK II) and 110 (Barbados).

Leg 107: PPSP reviewed 16 possible sites, approved 9 as they were proposed, approved 4 with conditions and rejected 3.

Leg 108: PPSP reviewed 8 possible sites and approved all as they were proposed.

Leg 109: PPSP approved deepening of the Leg 106 MARK I site.

Leg 110: PPSP reviewed 7 proposed sites, approved 5 as they were proposed and approved 2 with conditions. The Safety Panel also advised that special engineering methods may be required to drill the high-pressure zone encountered during DSDP Leg 78A drilling.

During 1985, the PPSP has also revised and rewritten the Safety Manual. This manuscript has been submitted to the JOIDES Office for publication.

APPENDIX R

IFREMER
DIT/ISM 86.02

Paris, le 17 JANVIER 1985

OCEAN DRILLING PROGRAM

PLANNING COMMITTEE - LA JOLLA (FEB. 20-24, 1986)

Report from the chairman
Technology and Engineering Development Committee (TEDCOM)

Introduction

Although it has been created early after the start of the Ocean Drilling Program, TEDCOM came to life only in October 1984, when a first meeting was held in Houston (Texas) under the chairmanship of Tim FRANCIS.

At that time there were seven U.S. members :

. Mr BINGMAN	SHELL
. Mr DENNIS	LOS ALAMOS Labs
. Mr GARDNER	EXXON
. Mr HOCOTT	UNIVERSITY OF TEXAS AT AUSTIN
. Mr NEWSOM	SANDIA Laboratories
. Mr SCHUH	ARCO
. Mr SILCOX	CHEVRON

and four non US members :

. Mr FRANCIS	G.B. (I.O.S.)
. Mr GUINARD	FRANCE (IFREMER)
. Mr MANCHESTER	CANADA (B.I.O.)
. Mr MARX	R.F.A. (University of Clausthal)

and all these people represented different expertises needed for ODP ; continental drilling, marine drilling, oceanography.

I - THE YEAR 1985

The first meeting had been quite successfull, and the members had had the opportunity to discuss and give their best advices about nine technical items, the three more important being :

. hard rock spud-in
. hard rock drilling
. hard rock drilling and recovering.

A second meeting had been contemplated for the spring 1985, but Great Britain was then unable to commit as a full member and consequently Dr Francis resigned from his TEDCOM chairmanship. Some months elapsed before the French ODP representative body proposed my name as a candidate chairman for TEDCOM. I was nominated by the PLACOM in June 1985.

Prior commitments and my participation to the search and discovery of the Titanic prevented me to work for TEDCOM before the month of september. From that time until the end of November, I made contacts with Dr Larson, TAMU engineering group people and all the TEDCOM members, writing to them and calling or visiting them. Most of them answered enthusiastically, being very eager to see this committee brought to life again and to participate to its work.

Meanwhile, in order to get, as quickly as possible, answers to specific questions, TAMU has taken the initiative to organize and hold a technical workshop. This workshop took place early September in College Station (Texas) and was devoted to the examination of the main technical and engineering problems of the project, by an attendance of engineering and scientists connected directly to the project. The main objective of this workshop was not to solve the problems, but rather to establish priorities between the problems that have to be solved by the manager of engineering and drilling operations and his team.

This workshop was also an opportunity for TAMU and Barry Harding to give the attending scientist an overview of the different equipments designed for and used by the project.

Attendees had to fill a form listing more than 25 . among them they ranked priority ONE :

. Bit development
. Heave compensator compatibility for piston coring
. Hard rock spud system
. High temperature drilling/coring adaptations

and six others were ranked medium priority.

-*-

II - TEDCOM GOALS

As I wrote it to all the members last October, I think strongly that TEDCOM must act like a bridge between the science party and the engineering party. For that purpose, TEDCOM members, acting with their knowledge and experience of the field, will have three objectives :

1. To ensure that engineering and science are properly coordinated, which means that the engineering priorities be coherent with the science priorities but which means also that the science priorities be compatible with the engineering and budget capabilities.

2. To be sure that the project make use of any relevant experience.

3. To ensure that the technological aspects of the project are conducted in the best way compatible with the actual budget and that the R&D priorities are sound.

ODP is also an international project in which money, science and technology are to be shared. It is the reason why I want to give TEDCOM a fourth objective :

4. To care that for each large contract concerning either a purchase of equipment or a development study, industries have been consulted on a world-wide basis, and that the best technology from the member countries is used everytime it is available.

TEDCOM must not be an auditing body, acting distrustfully vis-à-vis TAMU engineering team. If these four objectives, which I think each of you agrees with, are ODP objectives, thus the role of TEDCOM is to help TAMU to fullfill them.

Bringing outside views and hopefully new ideas, TEDCOM will contribute to a better efficiency of the project.

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III - TEDCOM PLANNING

I have proposed that the next meeting will take place in Marseille, February 17-20, using the opportunity of the port call of the Joides RESOLUTION between legs 107 and 108. So the member could have a view of the ship, and have a better comprehension of the problems.

It will be also the opportunity for the new chairman to host the meeting in his own country.

The agenda of that meeting includes first an examination of the engineering accomplishments in the past year of the budget problems, of the technical problems. It includes also two mini seminars, one on hot rock drilling, the other on riser drilling. In our mind, this mini-seminar on riser drilling will be the first step towards a larger one which could be held next fall.

TEDCOM meeting frequency is not yet definitely set. But we presume that 8 months intervals would be reasonable.

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DRAFT

PCOM is asked to establish a Steering Committee and terms of reference for COSOD-2.

1. PCOM will establish a COSOD-2 Steering Committee consisting of 12 members and a chairman including one representative from each of the non-US partner nations.

2. The Steering Committee is mandated to:

a. plan and organize a COSOD-2 meeting to be held no later than July 1987. Attendance at COSOD-2 is open to the world scientific community.

b. the prime objectives of COSOD-2, bearing in mind the scientific and technical progress of the Ocean Drilling Program, to date are to make recommendations for future scientific and technologicl objectives for the ODP. As part of this charge, special attention will be given to the development of associated scientific programs within the drilling program.

c. produce a report, within 6 months of COSOD-2, for distribution to relevant funding agencies and to the scientific community on a worldwide basis.

HIGHLIGHTS OF THE 20-24 JANUARY 1986 PLANNING COMMITTEE MEETING

The following are the highlights from the January 1986 meeting of the JOIDES Planning Committee.

NATIONAL SCIENCE FOUNDATION REPORT

G. Brass (NSF) reported that there is no clear picture emerging that indicates how the the Gramm-Rudman legislation will affect the approximately $32 M budgeted for ODP operations during FY 86. NSF is unable to make any long term forecasts for the $36 M proposed for the FY 87 budget as it has not yet been sent to Congress for review.

Brass asked PCOM members to develop liaisons with continental drilling agencies both nationally (e.g. in the US relevant groups are the Deep Observation and Sampling of the Earth's Continental Crust, Inc. (DOSECC), the United States Continental Scientific Drilling Program and the Salton Sea Scientific Drilling Project) and internationally in order to encourage cooperation and the sharing of technologies between the various organizations.

REVIEW OF JOIDES SCIENTIFIC ADVISORY STRUCTURE

Discussion of the present structure indicated that frustration with the system has resulted in the resignations of the LITHP chairman and the SOHP chairman. The frustration was based on a general feeling among LITHP and SOHP chairmen that there is an apparent lack of coordination between the panels, there is an unnecessary duplication of effort among the panels, there is a feeling that the advice of the thematic panels is largely ignored in favor of recommendations from the regional panels and that some disciplines within the geologic community (especially geochemistry) are not represented in the present structure and are being overlooked. Lastly, there was a general feeling of a majority of the chairmen that panel liaisons presently have too many meetings to attend and this system is not an effective means of communicating information.

The consensus of PCOM was that it was premature to change the panel structure at this time although it was recognized that there have been difficulties, especially in terms of communications, between thematic and regional panels. In view of this situation a better inter-panel liaison network is required. One effective means of achieving this will be to establish a meeting of the panel chairmen, to be held during the summer (in addition to the annual meeting with PCOM). A second means is to have relevant panels hold overlapping meetings in order to resolve conflicts on priorities. The development of drilling plans should be based on an identification, by the thematic panels, of the global thematic objectives which may be best attained in any particular region. Regional panels should take these themes as the basis for regional drilling plans and there should be a further evaluation by the thematic panels. At this time the resolution of any conflicting advice from the regional and thematic panels should occur. The PCOM will then construct a drilling plan based on this flow of advice. PCOM further agreed that although the Program is placed within a 10 yr. framework, it should be emphasized that the boundary conditions are flexible. It was the general consensus that while thematic panels will continue to receive

proposals, regional panels will concentrate on detailed proposal review in the development of the regional plans.

PCOM agreed that COSOD-2 may provide an opportunity for a review and possible re-alignment of the panel structure. Meanwhile, PCOM will consider ways to best include the views of the geochemical community into the planning process.

SHORT-TERM PLANNING

Leg 108 (NW Africa)

No problems are anticipated for Leg 108 other than those caused by clearance difficulties. The addition of a heat flow program has been discussed and okayed with TAMU and the co-chiefs and will be implemented by the physical properties specialist on RESOLUTION. In addition, engineering tests on the minicore system and the sidewall logging sub will be conducted.

Leg 109 (MARK-2)

It was consensus of the Downhole Measurements Panel and the Lithosphere Panel that the hole established on Leg 106 be deepened with some logging conducted at the site (Site 648 B) and that a full suite of logging be conducted at DSDP Hole 395A.

Leg 110 (Barbados)

TAMU indicates that there are no problems and that progress continues on drill-in casing development.

Leg 111

Recognizing the importance of sampling the deep oceanic crust in order to expand our present knowledge of the lithosphere, the PCOM recommended that Leg 111 be primarily devoted to the deepening and logging of Hole 504B.

In addition, the PCOM recommended that a maximum of 5 days be added to the program for drilling double APC and XCB sites in the vicinity of Hole 504B with one site to be a representative geochemical and paleontological site. A full logging program will be undertaken with the inclusion of a Vertical Seismic Profiling (VSP) experiment. The PCOM also indicated that any decision to replace drilling at Hole 504B by a third leg devoted to Site 648B will be dependent on good results and substantial drilling progress on Leg 109.

MEDIUM RANGE PLANNING (INDIAN OCEAN 1987/88)

Taking into account the impossibility of obtaining site surveys for the Mascarene Basin/Fossil Ridges program, PCOM revised the program for Indian Ocean drilling which is given in Table 1.

In considering the availability of site surveys for the Indian Ocean program, the PCOM recommended that the Mascarene Basin/Fossil Ridges program be eliminated from planning due to the impossibility of obtaining the needed site surveys. The PCOM also noted that the acceptance of the Southwest Indian Ridge

TABLE 1

1987	JAN FEB	Weddell Sea
	MAR APR	Atlantic-SubAntarctic Transect
	MAY JUNE	Southwest Indian Ridge
	JULY AUG	Red Sea
	SEPT OCT	Neogene Package
	NOV DEC	Kerguelen 1
1988	JAN FEB	Kerguelen 2
	MAR APR	Broken Ridge/ S 90 E Ridge
	MAY JUNE	N 90 E Ridge/ Intraplate Deformation-Bengal Fan
	JULY AUG	Argo/Exmouth

The above is the drilling program scheduled for 1987/1988 as devised by the Planning Committee at the January 1986 meeting.

(SWIR) and the 90°East Ridge programs into the schedule may be prejudiced if site surveys are not conducted in those areas and that Red Sea drilling may be in doubt due to political problems (clearance difficulty and security). Should these legs be eliminated from the program, PCOM identified an additional Neogene Package leg, the Makran and a Somali Basin deep stratigraphic test hole as potential backups and these proposals will be the subject of further evaluation.

LONG-TERM PLANNING (PACIFIC OCEAN 1989-)

Overall Time in the Pacific Ocean

The PCOM recommended that WPAC, CEPAC, SOP and the thematic panels develop a scientific program for the Pacific Ocean under the initial time constraint of a total of three years for this entire region. It was indicated that the time in the area will be partitioned approximately equally between the western Pacific (the general area mandated to WPAC) and the remainder of the Pacific (including the Bering Sea and far Southern Pacific). However, the PCOM indicated that this time constraint and its division is tentative and subject to revision in consideration of subsequent scientific arguements from the panels.

PANEL MEMBERSHIP

Panel Rotations

It was the consensus of PCOM that the panels should propose a rotation scheme for membership (noting that non-US members are not required to adhere to the rotation) and should suggest possible replacements and additions to ensure as complete a disciplinary cover as possible. PCOM will decide on rotations and new membership at its May meeting following the above input from the panels.

Panel Chairmen's Meeting

PCOM agreed to appoint D. Rea (CEPAC) as chairman of this group. It is agreed that the meeting would be held at OSU prior to the next PCOM meeting. Subjects suggested for the agenda were: global review of thematic objectives of ODP; panel-panel and panel-PCOM communications and improvements to working methods; resolution of Indian Ocean planning conflicts; identification of major objectives of Pacific Ocean drilling and the inclusion of geochemical, site survey and downhole measurements input into planning.

ANY OTHER BUSINESS

Rotation of the JOIDES Office

PCOM was informed that the JOIDES Office will rotate to Oregon State University as of 31 September 1986 and that OSU will be succeeded, in 1988, by the Hawaii Inst. of Geophysics. With this rotation, D. Caldwell will succeed J. Knauss as the EXCOM chairman and N. Pisias will succeed R. Larson as the PCOM Chairman.

In responding to a mandate by the EXCOM, given at its Jan. 1986 meeting, the PCOM prepared a draft Terms of Reference for a COSOD-2 meeting. Offers to host the meeting were made by T. Francis, H. Beiersdorf and J-P. Cadet. The location will be finalized at the May PCOM meeting. The steering committee will consist of 12 members with one member from each of the non-US members plus a chairman. Selection of the Steering Committee and its Chairman will be made in May. The meeting will be funded by co-mingled funds with travel to be a national responsibility.

JOIDES EXECUTIVE COMMITTEE

COSOD-II ARRANGEMENTS

1. Following the previous EXCOM meeting instruction, the Planning Committee has established a mandate for COSOD-II and is seeking nominations from all PCOM members and USSAC for a Steering Committee (see attached note). At its May meeting, the PCOM will select the Steering Committee and its Chairman.

2. Offers to host COSOD-II have been received from the Federal Republic of Germany (to be held at Geological Institute of the University of Kiel), from the U.K. (to be held at St. John's College, Cambridge University), whilst France has proposed that COSOD-II should be held under European "auspices," possibly at Strasbourg. A formal offer to organise COSOD-II has been received from the European Science Foundation (the full organisation including France, the Federal Republic of Germany, and the U.K. - not to be confused with the ESF Consortium for ODP).

3. A meeting of the national PCOM representatives will be held in mid-April and a "consolidated" view as to the venue and convening organisation for COSOD-II will be made to the Executive Committee.

4. The Executive Committee is asked to decide on the venue for COSOD-II.

COSOD-2

PCOM was asked by EXCOM at their 7-8 January 1986 meeting to establish a steering committee and terms of reference for COSOD-2. The following terms of reference were agreed by the PCOM at their 20-24 January 1986 meeting.

Terms of Reference

1. The prime objective of COSOD-2 is to make recommendations for future scientific and technological objectives for the Ocean Drilling Program, bearing in mind the scientific and technical progress of the ODP to date. As part of this charge, special attention will be given to the development of associated scientific programs within the ODP.

2. PCOM will establish a COSOD-2 Steering Committee consisting of 12 members and a chairman including one representative from each of the non-U.S. partner nations.

3. The Steering Committee is mandated to:

   a. plan and organize a COSOD-2 meeting to be held no later than July 1987. Attendance at COSOD-2 is open to the world scientific community.

   b. to produce a report within 6 months of COSOD-2 for distribution to relevant funding agencies and to the scientific community on a worldwide basis.

JOIDES EXECUTIVE COMMITTEE

PARTICIPATION BY THIRD WORLD SCIENTISTS

1. During the year since the previous ODP Council meeting, when the proposal to seek ways and means to involve geoscientists from the Third World in ODP was endorsed, the JOIDES Office has been pursuing contacts with a variety of international organisations. The results of these actions are summarised below:

2. World Bank - Contact was made with relevant Bank officials and information sent to them, but it was made clear by these officials that the chance of World Bank support is remote.

3. U.N. Development Program/Committee for Coordination of Joint Prospecting for Mineral Resources (CCOP) - The EXCOM Chairman has written to the chairmen of CCOP/AS (East Asia) and CCOP/SOPAC (South Pacific) to seek their cooperation in terms of communicating with the geoscience communities in these areas and to seek funding support for such scientists. Additionally, individual members of JOIDES and interested Australian scientists are known to have raised ODP at CCOP meetings and the JOIDES Office has sent information packs to all the identified contact points. So far, this effort has not elicited a response.

4. ICSU/Scientific Committee on Oceanic Research - Communication has been established with the SCOR Executive Committee. It is hoped that the issue of cooperation with ODP and the involvement of Third World scientists will be on the agenda of the next SCOR General Meeting to be held in November 1986 in Hobart, Australia.

5. International Union of Geological Sciences (IUGS) - Both the present president (Dr. W. Hutchison, Canada) and the past president (Prof. E. Seibold, DFG/FRG and ESF President) are members of the IUGS Executive Committee so that ODP should be well represented at this level in IUGS. In addition, the Chairman (Dr. K. Hsü) and Secretary (Dr. J. Thiede) of the IUGS Commission on Marine Geology have been deeply involved in ODP. All the above are on both the JOIDES and TAMU mailing lists so as to keep abreast of ODP developments. Recently, the editor of Episodes, the IUGS quarterly, has invited the JOIDES Office to submit a feature article on ODP which, it is hoped, will be published in June. IUGS and its organisations provide an important channel of communication to the non-ODP scientific community.

6. UNESCO/IOC - Correspondence has been exchanged between the EXCOM Chairman and the Secretary of IOC (Dr. M. Ruivo). IOC has responded positively to say that its Guiding Group of Experts for the OSNLR (Ocean Science in relation to Non-Living Resources) has strongly encouraged participation in ODP by scientists from developing countries. Information concerning ODP and the forthcoming Indian Ocean drilling plans have been sent to Dr. H.N.

Siddiquie (Member of the Guiding Group of Experts and Director, Indian National Institute of Oceanography) who has been asked to pass information to relevant scientific contacts in the Indian Ocean region.

Dr. Ruivo has also offered to study, case by case, and according to funds available, the possiblity of funding travel for participating scientists and has also offered to assist in acting as an information conduit for ODP.

7. Association of Geoscientists for International Development (AGID) This organisation has been approached for assistance in disseminating information about ODP to its members, but, to date, no response has been received.

8. Miscellaneous - All opportunities are being taken to disseminate information about ODP to individual scientists in Third World nations, to encourage their participation, and to ask for their assistance in terms of providing governmental contacts for furthering ship's clearance requests and in helping with site surveys. In particular, proposals for drilling have been received from PRC, South Korea, and the Philippines. In the first two cases, the proposals have been accompanied by offers of assistance in site surveys.

Approaches have also been made to JOIDES to make presentations on ODP as a total program and on Pacific Ocean planning in particular to the Fourth Conference of the Circum-Pacific Council for Energy and Mineral Resources to be held in Singapore in August 1986. It is hoped that the PCOM Chairman-designate and the chairmen of the JOIDES Western Pacific and Central & Eastern Pacific Panels will be able to attend this meeting. This should provide a useful forum for dissemination of ODP information to the general Pacific scientific community.

9. The Executive Committee is asked to note the above actions and progress and to advise as to any other contacts which should be approached.

A.E.S. Mayer
March 1986

JOINT OCEANOGRAPHIC INSTITUTIONS for DEEP EARTH SAMPLING (JOIDES)

JOIDES Office
Graduate School of Oceanography
University of Rhode Island
Narragansett, RI 02882

Telephone: (401) 792-6725, 6726
Telex: 9103802848 (JOIDES URI UD)
Telemail: JOIDES.URI

JAN 3 1 1986

M E M O R A N D U M

January 29, 1986

TO: EXCOM Members

I recently received a letter from one of you which included the following paragraph.

> "It may be worth pointing out that a few of us chatting after the last EXCOM meeting felt that we would have liked brief written reports from PCOM, L-DGO, TAMU, JOI, and perhaps NSF, but that is less critical I suspect. Certainly I have found myself in writing up my notes occasionally uncertain, and written reports would be helpful. I think that the 'directors' of a 36 million dollar program deserve and need written reports from those responsible for implementing the program and spending the money."

The issue is an interesting one. On the one hand I suspect many of you feel as guilty as I do about the number of unread reports that pass our desks. The last thing any of us need are more reports to increase our guilt level. However, there is considerable merit in the proposition that those of us primarily responsible for the success of this operation be certain we really understand what we are being told. For that there is no substitute for written documents. At any rate, I suggest the topic of written reports to EXCOM is worthy of discussion at our next meeting.

Sincerely,

John A. Knauss
Chairman, EXCOM

JAK:abb
cc: D.J. Baker
P. Rabinowitz
R. Anderson
R. Larson

OCEAN DRILLING PROGRAM

JOIDES EXECUTIVE COMMITTEE

FUTURE MEETING ARRANGEMENTS

1. The next meeting of the JOIDES Executive Committee has been arranged for:

   15-16 October 1986 at the Pacific Geoscience Centre, Sidney, British Columbia

2. It has been the practise for EXCOM meetings to follow PCOM meetings by approximately 4 to 6 weeks, although this has not been the case recently. There are certain firm commitments for meetings (EXCOM meeting with the ODP Council in the Washington area in Spring and the January annual meeting of PCOM with its Panel Chairmen). It has been the tradition for both the EXCOM and PCOM summer meetings to rotate amongst the non-U.S. partner nations. It has also been the tradition for both committees to meet at the JOIDES Office host institution fairly early within the normal two-year rotation period.

3. Bearing the above constraints in mind and noting that the summer EXCOM meetings have rotated as follows:

   1983 Swindon, England (host- U.K.)
   1984 Strasbourg, France (host- France & ESF)
   1985 Bonn, Germany (host- FRG)
   1986 Sidney, British Columbia (host-Canada)

   it is suggested that EXCOM should adopt a 1987 schedule which is given below:

January 1987	PCOM Annual Meeting
early Spring	EXCOM with ODP Council (Washington, DC area)
early Summer	PCOM (Japan)
late Summer	EXCOM (Japan)
approx. Sept.	PCOM
late October	EXCOM (Oregon State University)

JOIDES Office 3/86

JOIDES EXECUTIVE COMMITTEE

JOIDES OFFICE ARCHIVES

1. At the end of the period of the Miami JOIDES Office, which coincided with the substantive change from DSDP to ODP, many JOIDES records were transferred to DSDP to form part of the DSDP archive.

2. With the impending transfer of the JOIDES Office from URI to OSU, it is appropriate to consider, in principle, the need, if any, to create an ODP archive and its possible location.

3. It is estimated that a maximum of approximately two file cabinet drawers of material will accumulate as archival material during any two-year JOIDES Office period. Rather than build up an archival collection which is constantly transferred from institution to institution with the JOIDES Office, it is proposed that an archive should be established either at JOI, or by analogy with DSDP, with the Science Operator at TAMU.

4. The Executive Committee is asked to consider this issue and advise accordingly.

INFORMATION

PAPERS

ANALYSIS OF PROPOSALS RECEIVED BY THE JOIDES OFFICE (AS OF 31 MARCH 1986)

Total number of proposals received		218
a. Atlantic Ocean		38 proposals
comprising:	General	24
	Mediterranean Sea	8
	Caribbean Sea	5
	Norwegian Sea	1
from:	U.S./JOIDES institutions	12
	U.S./non-JOIDES institutions	3
	France	11
	U.K.	4
	FRG	3
	ESF Consortium	3
	Canada	2
b. Indian Ocean		59 proposals
comprising:	General	54
	Red Sea	5
from:	U.S./JOIDES institutions	28
	U.S./non-JOIDES institutions	14
	France	9
	U.K.	3
	ESF Consortium	2
	Canada	1
	FRG	1
	(Australia)	1
c. Southern Oceans		12 proposals
from:	U.S./JOIDES institutions	6
	U.S./non-JOIDES institutions	1
	France	2
	FRG	1
	(Australia)	1
	(New Zealand)	1
d. West Pacific Ocean		63 proposals
from:	U.S./JOIDES institutions	8
	U.S./non-JOIDES institutions	9
	Japan	23
	France	11
	FRG	2
	U.K.	1

(Australia)		5
(Peoples Republic of China)		2
(New Zealand)		1
(Korea)		1

e. Central and Eastern Pacific Ocean — 27 proposals

from:	U.S./JOIDES institutions	16
	U.S./non-JOIDES institutions	7
	France	2
	Canada	1
	Japan	1

f. General/Instrumental — 19 proposals

from:	U.S./JOIDES institutions	7
	U.S./non-JOIDES institutions	1
	Japan	4
	FRG	3
	Canada	1
	France	1
	U.K.	1
	ESF Consortium	1

Total (by country) — 218

U.S./JOIDES institutions		77	112
U.S./non-JOIDES institutions		35	
France			36
Japan			28
FRG			10
U.K.			9
ESF Consortium			6
Canada			5
Non-JOIDES nations	(Australia)		7
	(New Zealand)		2
	(PRC)		2
	(Korea)		1

In addition, 67 ideas or suggestions for drilling have been received. These range from brief letters of intent to immature proposals. Several of the items listed have now been re-submitted as full proposals. There are also several proposals for workshops.

A.E.S.Mayer
March 1986

ATLANTIC OCEAN PROPOSALS

Ref. No.	Date Rec'd.	Title	Investigator(s)	Inst.	Site Survey		Panel Reference	PCOM Reference	Remarks
					Avail' Data	Future Need			
1/A	12/16/82	Pre-middle Cretaceous geologic history of the deep S.E. Gulf of Mexico	Phair,R.L. Buffler,R.T.	U.T.Austin	Some		SOHP 2/84 CAR-WG (P) ARP (P) PMP (P)		Reference to DSDP Panels
5/A	7/13/83	Structural & sedimentological development of carbonate platforms(Blake-Bahamas area)	Mullins, H.T. Sheridan,R.E. Schlager, W.	RSMAS	No	Ref'd to JOI SSP 7/25/83	SOHP 2/84 ARP (P)	Approved 3/84	Leg 101
6/A	8/-/83	Ocean crust and high latitude paleoceanography in the Labrador Sea	Gradstein,F.M. et al.	Atlantic Geoscience Centre, Canada	Some	SS needed (11/83)	SOHP 2/84 TECP 1/84 SOHP 10/84 (for added 14 days drilling)	Approved 3/84	Proposal revised 3/84 and 5/84 Leg 105 To incld Baffin Bay drilling (Proposal 58/A)
7/A	8/1/83	Future drilling sites in the Gulf of Mexico & Yucatan	Buffler,R.T. Bryant, W. R.	U.T.Austin	Some	Yes	CAR-WG 1/84 ARP 7/84	Approved 9/84	Approved as back--up leg.See Props. 23/A & 32/A
9/A	1/-/84	Pre-Messinian history of the Mediterranean	Hsu,K.J. (on behalf of the Swiss Working Group)	ETH,Zurich Switz. (ESF)	Yes		MED-WG (P) SOHP (P)		
10/A	1/-/84	Cenozoic events in oceanic and atmospheric circulation off N.W.Africa	Sarnthein,M., et al.	Univ. Kiel FRG	Yes	No	SOHP 5/84 ARP 4/84 SOHP 4/85 ARP 4/85	Approved 5/84	Leg 108 Revised 3/84 & further revised 4/85
12/A	1/-/84	A transect across the Tyrrhenian Back-arc Basin	Cita,M.B. Malinverno,A.	Milan Univ Italy(ESF)	Some		MED-WG 3/84 ARP 7/84	Approved 9/84	See Tyrrhenian Sea revised Proposal 21/A
15/A	1/10/84	Paleocommunication between the North and South Atlantic seas during the Cretaceous: Formation of the Atlantic Ocean	Herbin,J.P.	IFP,France			TECP ARP		French Blue Book
16/A	1/10/84	Atlantic-Mediterranean relationship(Gulf of Cadiz, Alboran Sea); Paleoceano-graphic and paleohydrological evolution since the Miocene	Faugeres, J.C.	Univ. of Bordeaux 1, France	Some	Yes	TECP ARP		French Blue Book

17/A	1/10/84	Deep oceanic crust and upper mantle proposal for deep drilling in the Gorringe B...	Mevel,C.	Univ. P & M Curie, Paris,Fr. (CYAGOR G)	Some	Yes	LITHP 2/84 TECP RP		French Blue Book
18/A	1/10/84	DSDP Proposal off Galicia Bank	Mauffret,A. Boillot, G. Montadert,L.	Univ. P&M Curie, Paris, Fr IFP	Yes	No	TECP ARP	Approved 5/84	French Blue Book Revised 6/84 Leg 103
19/A	1/10/84	Proposal for drilling on the Eleuthera Fan (Bahamas)	Ravenne, C. Le Quellec,P.	IFP France CFP France	Yes	No	TECP 1/84 ARP SOHP		French Blue Book Leg 101
20/A	1/10/84	Subduction Collision: the outer Hellenic Arc	Mascle, J.	Univ. P&M Curie, Paris, Fr.	Some	Yes	TECP 1/84 ARP		French Blue Book
21/A	1/10/84	Rifting, stretching and oceanic accretion in the Tyrrhenian Marginal Basin	Rehault, J.P. Fabbri, A.	Univ. P&M Curie, Fr. Instituto di Geolog. Marina, CNR, Italy	Some	Yes	TECP 1/84 & 10/84 ARP MED-WG 10/84 SOHP	Approved 9/84	French Blue Book Revised by MED-WG Sept.1984.Further revised June 1985. Leg 107 see Prop 12/A
22/A	1/10/84	The Rhone deep sea fan site: Proposal for deep sea drilling	Bellaiche,G. Droz, L. Got, H. Orsolini, P.	Lab. de Geodynam. sous marin Villefran. France CRSM, Perpignan,Fr. SNEA,Paris	Yes		TECP 1/84 ARP		French Blue Book
23/A	1/10/84	Caribbean Basins	Mascle, A. Biju-Duval,B.	IFP,France CNEXO, France	Yes		CAR-WG 2/84 TECP 1/84 ARP		French Blue Book (Partly related to Props 7/A and 32/A)
24/A	1/10/84	New drilling along Barbados transects	Mascle,A. Biju-Duval,B.	IFP,France CNEXO, France	Some		CAR-WG 2/84 SOHP 2/84 TECP 1/84	Approved 3/84	Incorporates prop. by Biju-Duval,Moore & DSDP Leg 78A science staff on drilling of the Barbados Forearc. Relate to Props. 35/A & 41/A;now in in Prop.72/A.Leg 110 & back-up leg
32/A	1/26/84	Primary drilling sites for AODP (Yucatan Basin)	Rosencrantz,E. Bowland,C.	U.T.Austin	Some	Yes	ARP (P) CAR-WG 2/84	Approved 9/84	Agreed as back-up prop.Relate to Props. 7/A & 23/A
35/A	2/-/84	Additional proposed sites for drilling on the Barbados Ridge accretionary complex	Westbrook,G.K.	Durham Univ.,U.K.			TECP (P) CAR-WG	Approved 3/84	Related to Prop. 24/A & 41/A. Now incorporated in Prop.72/A.Part of back-up

36/A	2/-/84	Drilling in the Norwegian Sea during the IPOD-extensio drilling	Hinz,K. and Norwegian Sea Working Group	BGR, FRG	Yes	No	NOR-WG ARP (P) TECP 2/84	Approved 3/84	Revised 4/84 & 5/84 (incorporates NOR-WG views) Leg 104
38/A	2/15/84	Proposal for drilling in N.E. Gulf of Mexico (DeSoto Canyon)	Kennett, J. Moore, T.	URI	Yes	Yes	SOHP 4/84		
39/A	2/27/84	IPOD drilling in Cape Verde	Hill, I.	Leicester Univ.,U.K.					Previously submitted in 1982
40/A	2/27/84	Re-entry for logging of Site 534 (Blake-Bahamas Basin)	Sheridan, R. Shipley, T. Stoffa, P.	U.T.Austin	Yes		ARP (P) SOHP (P)	Approved 1/84	Part of Leg 101
41/A	3/-/84	Northern Barbados Forearc: structural and hydrological processes	Moore, C.	UCSC	Some		TECP 4/84 ARP SOHP 8/84	Approved 3/84	Related to Props. 24/A & 35/A;see also Prop. 72/A. Leg 109
45/A	3/5/84	Paleoenvironmental drilling in the Equatorial Atlantic	Ruddiman, W.F.	LDGO	No		SOHP 4/84 ARP 4/84 TECP		
58/A	3/21/84	West Baffin Bay	Grant, A.C. Jansen, et al.	Atlantic Geoscience Centre		Yes	SOHP 10/84 TECP 10/84	Approved 3/84	Incorporated within Proposal 6/A Leg 105
59/A	3/27/84	Continental margin sediment instability investigated by drilling adjacent turbidite sequences	Weaver,P.P.E. Kidd, R.B. et al.	IOS, UK	Yes		SOHP 4/84 ARP 4/84 TECP 3/84		Revised proposal 8/84 resubmitted to Panels
60/A	4/20/84	Newfoundland Basin: Eastern Canadian Margin	Masson, D.G.	IOS, UK	Yes	Yes	SOHP 4/84 ARP (P) TECP 4/84		
64/A	6/25/84	To drill at Site NJ-6	Poag, C.W.	USGS,WHOI	Yes		ARP 7/84 SOHP 7/84		
68/A	7/6/84	Deep basins of the Mediterranean	Montadert, L.	IFP, France			TECP 1/84		
72/A	7/30/84	Proposal for a two-leg transect of the Lesser Antilles forearc	Speed, R.C. Westbrook,G.K. Mascle, A. Moore. J.C.	Northwest-ern Univ. Durham,UK IFP,France UCSC	Yes		ARP (P) TECP 8/84 SOHP 8/84		CAR W/G proposal; incorp. Leg 110 See Props. 24/A. 35/A and 41/A

74/A	8/2/84	ODP drilling along the continental margin of Morocco, N.W. Africa	Winterer,E.L. Hinz, K.	SIO BGR, FRG	Yes		TECP 8/84 ARP(P) LITHP(P) SOHP(P)	Approved 9/84	Related to Prop. 85/A. Approved for back-up leg.
81/A	9/4/84	Proposal for an Ionian Sea transect	Hieke, W. Makris, J.	Univ. of Hamburg, FRG			ARP 9/84 MED-WG 9/84 SOHP 10/84 TECP 10/84		Revised by MED-WG 9/84
85/A	9/20/84	Preliminary proposal for ODP drilling along the continental margin of Morocco,N.W. Africa	Hayes, D.E. Mountain, G. Rabinowitz,P.	LDGO TAMU			ARP (P) SOHP (P) TECP (P) 10/84	Approved 9/84	Related to Prop.74/A Approved as part of back-up proposal.
122/A	12/28/84	Basement drilling at the Kane Fracture Zone	Karson, J.A.	WHOI	Yes	Yes	LITHP 1/85 ARP 1/85	Approved 3/84	Legs 106 & 109
125/A	01/14/85	Bare-rock drilling at the Mid-Atlantic Ridge (22°53'N)	Bryan,W.B Purdy,G.M. Thompson,G.	W.H.O.I.	Yes	No	LITHP 1/85 ARP 1/85	Approved 3/84	Legs 106 & 109
204/A	12/30/85	Proposed Florida escarpment drilling transect	Paull,C. Kastner,M. Neumann,A.C.	SIO U.North Carolina	Yes	Yes	SOHP 12/85 ARP 12/85 TECP 1/86		USSAC Carbonate Platforms Workshop
205/A	12/30/85	Drilling in the Bahamas: carbonate fans,escarpment erosion & roots of carbonate banks	Schlager,W. Sheridan,R.E. Ladd,J. Ravenne,C Neumann,A.C. Austin,J.	Vrije Univ Amsterdam (ESF) U.Delaware LDGO IFP Paris France U.North Carolina UT Austin	Yes	Some	SOHP 12/85 ARP 12/85 TECP 1/86		USSAC Carbonate Platforms Workshop

DIAN OCEAN PROPOSALS

Ref. No.	Date Rec'd.	Title	Investigator(s)	Inst.	Site Survey Avail' Data	Site Survey Future Need	P Rei ce	PCOM Reference	Remarks
30/B	1/10/84	Proposals for oceanic drilling on the Davie Ridge and Malagasy Margin (Mozambique Channel)	Clocchiatti,M. Leclaire,L. Segoufin,J.	Mus.Natn. d'Hist. Naturelle, Univ.P&M Curie Paris,Fr.	Some	Yes	TECP 1/84 IOP 4/85 SOHP 4/85 TECP 4/85		French Blue Book Revised proposal received 03/25/85 Further rev.8/85 French I.O.Book
31/B	1/10/84	Paleoenvironmental history of the Red Sea	Guennoc, P.	BRGM, Fr.	Yes	Yes	TECP IOP (P)	Approved 6/85	French Blue Book
44/B	3/-/84	Tectonic evolution of the Andaman Sea in relation with the relative displacement of Indochina with respect to India	Peltzer, G. Tapponier, P. Jacquart, G.	Univ. P&M Curie, Fr.			WPAC TECP 4/84 IOP (P)		
55/B	3/21/84	The Makran Forearc, Pakistan	Leggett, J.K.	Imperial College, U.K.	Some	Yes	TECP 4/84 IOP 4/84 SOHP 4/85		Revised 04/08/85
56/B	3/21/84	Drilling to constrain the history of deformation and relationship between fault surfaces and upward flow of water in the region of inter-plate deformation, Central Indian Ocean	Weissel, J.K. Forsyth, D.W. Stein, C.A. Anderson, R.N.	LDGO Brown U. North-western U LDGO	None	Yes	DMP 4/84 TECP 4/84 IOP 4/84 LITHP 10/84 TECP 10/84 SOHP 10/84	Approved 6/85	Revised following Indian Ocean Workshop 10/84
57/B	3/21/84	Determine the history of the formation of the African-Arabian margin and adjacent oceanic lithosphere	Stein, C.A.	North-western University	Yes		IOP (P) SOHP 10/84 TECP 10/84		Revised 10/84 following US Indian Ocean Workshop See Prop.119/B
61/B	6/18/84	Conjugate passive rifted margins of Madagascar, East Africa and the Western Somali Basin	Coffin, M.F. Matthias, P.	LDGO TAMU	Some		IOP 7/84 TECP 7/84 SOHP 10/84 TECP 10/84		Revised following US Indian Ocean Workshop 10/84 See Prop.102/B
62/B	6/18/84	The Davie Fracture Zone: reactivating zone of weakness?	Coffin, M.F. Matthias, P. Bernoulli, D. Scrutton, R.A. Channell, J.T.	LDGO TAMU U.Basel Switz.ESF U.Edin.UK U. Florida	No		IOP (P) SOHP 10/84 TECP 10/84 IOP 12/84		Revised 10/84 following US Indian Ocean Workshop. Further revisions received 12/84 (mature proposal)
65/B	7/5/84	Magnetic quiet zone: Australia's southern margin	Mutter, J.C. Cande, S.C.	LDGO	Some		TECP 10/84 LITHP 10/84 SOHP 10/84 SOP (P) IOP(P)		Revised 10/84 following US Indian Ocean Workshop
77/B	8/20/84	The Seychelles Bank and the Amirante Trough	Mart,Y.	TAMU	Some	Yes	IOP 8/84		
78/B	8/23/84	Indus Fan - a proposal for drilling	Kolla, V.	Superior Oil Co.USA			IOP (P) SOHP 9/84		See Prop.96/B

79/B	8/28/84	Tethyan stratigraphy and ancient oceanic crust	Coffin, M.F. Cha ,J.E.T.	LDGO	Some		LITHP 9/84 SOHP 9/84 IOP [redacted]84		
86/B	10/1/84	Red Sea drilling	Bonatti, J.	LDGO	Yes	S.S. pro--posed	LITHP 10/84 SOHP 10/84 TECP 10/84 IOP 10/84	Approved 6/85	US Indian Ocean Workshop Revised 9/85
87/B	10/1/84	Basalt drilling objectives in the Arabian Sea - Carlsberg Ridge	Natland, J.	SIO	Yes		SOHP 10/84 TECP 10/84 IOP (P) LITHP 10/84		US Indian Ocean Workshop
88/B	10/1/84	Origin & evolution of the Chagos-Laccadive-Mascarene volcanic lineament, Central Indian Ocean	Duncan, R.A. Fisk, M.R. White, W.M.	OSU	Yes		LITHP 5/85 SOHP 5/85 TECP 5/85 IOP 5/85		US Indian Ocean Workshop; Related to Proposal 97/B; Revised 5/85
89/B	10/1/84	Mantle heterogeneity leg-drilling on S.W. Indian Ridge Fracture Zones	Dick, H.J.B. Natland, J.	WHOI SIO	Some		LITHP 3/85 SOP 3/85 IOP 3/85 TECP 3/85		US Indian Ocean Workshop: See prop. 112/B. Revised 3/85 Rel. to Props. 162/F, 186/F & 208/B
90/B	10/1/84	S.E. Indian Ocean Ridge transect (mantle heterogeneity)	Duncan, R.	OSU	Yes		LITHP 10/84 SOHP 10/84 IOP (P)		US Indian Ocean Workshop; Related to Prop. 100/B and 111/C
91/B	10/1/84	Nature of chemical discon--tinuity in oceanic crust as a function of time (S.E. Indian Ocean)	Langmuir, C.	LDGO	Yes		LITHP 10/84 IOP (P)		US Indian Ocean Workshop; related to Prop. 112/B
92/B	10/1/84	Seismic observatory in the Crozet Basin	Butler, R. Brocher, T.M.	HIG WHOI	No	Yes	LITHP 10/84 SOHP 10/84 TECP 8/85 IOP 8/85		US Indian Ocean Workshop Revised 8/85
93/B	10/1/84	History of anoxic sediments associated with monsoonal upwelling, salinity strat-ification and oxygen minima in the Western Arabian Sea	Prell, W.L.	Brown Univ.	Little	Yes	SOHP 10/84 IOP (P)	Approved 6/85	US Indian Ocean Workshop
94/B	10/1/84	History of monsoonal upwelling Owen Ridge, Arabian Sea	Prell, W.L.	Brown Univ.	Some	Yes	SOHP 10/84 TECP 10/84 IOP (P)	Approved 6/85	US Indian Ocean Workshop
95/B	10/1/84	History of the Asian monsoon (Bay of Bengal)	Cullen, J.L. Prell, W.L.	Salem St. Brown Univ.	Yes		SOHP 10/84 TECP 10/84 IOP (P)	Approved 6/85	US Indian Ocean Workshop
96/B	10/1/84	Surveying and drilling in the Bengal Fan (Distal Indus and Ganges Fans)	Klein, G.deV.	Illinois Univ.	Some	Yes	SOHP 10/84 TECP 10/84 IOP (P)	Approved 6/85	US Indian Ocean Workshop See Prop. 78/B
97/B	10/1/84	Variation of Neogene surface fertility & carbonate compensation in the Equatorial Indian Ocean	Peterson, L.C.	RSMAS	Some	Yes	SOHP 3/85 IOP 3/85		US Indian Ocean Workshop; rel. to Props. 88/B & 183/B Revised 3/85

98/B	10/1/84	Determination of the geologic history of southern hemi--sphere atmospheric circu--lation and climatic evolution of the Australian Desert (S.E. Indian Ocean)	Rea. D.K.	Univ. of Michigan	Yes		SOHP 10/84 IOP (P)		US Indian Ocean Workshop
99/B	10/1/84	Palaeo-oceanography climate dynamics (Agulhas Basin)	Coulbourn, W.	Univ. of Hawaii	Yes		SOHP 10/84 TECP 10/84 IOP (P)		US Indian Ocean Workshop
100/B	10/1/84	Stratigraphic sections - S.E. Indian Ridge transect	Hays, J.D. Lazarus, D.B.	LDGO WHOI	Some		SOHP 10/84 IOP (P)		US Indian Ocean Workshop; related to Prop. 90/B and 111/C
101/B	10/1/84	Determination of geologic history of ridge crest hydro--thermal activity	Owen, R.M. Rea, D.K.	Univ. of Michigan	Some		SOHP 10/84 LITHP 10/84 IOP (P)		US Indian Ocean Workshop
102/B	10/1/84	Somali Basin	Matthias, P.	TAMU			IOP (P) SOHP 10/84 TECP 10/84		US Indian Ocean Workshop See Prop.61/B
103/B	10/1/84	Nature of Laxmi Ridge (N.W. Indian Ocean)	Heirtzler, J.	WHOI	Little		IOP (P) SOHP 10/84 TECP 10/84 LITHP 10/84		US Indian Ocean Workshop
104/B	10/1/84	Transect of 90°East Ridge	Curray, J. Duncan, R.	SIO OSU	Some	Yes	IOP (P) LITHP 10/84 TECP 10/84 SOHP 10/84	Approved 6/85	US Indian Ocean Workshop
105/B	10/1/84	Arc-continent collision,Timor	Karig, D.E.	Cornell Univ.	Yes		IOP (P) TECP 10/84 SOHP 10/84		US Indian Ocean Workshop
106/B	10/1/84	Broken Ridge, Indian Ocean	Curray, J. Thierstein,H. Mackenzie, Mahoney	SIO	Poss--ibly		IOP (P) TECP 10/84 SOHP 10/84 LITHP 10/84	Approved 6/85	US Indian Ocean Workshop
107/B	10/1/84	State of stress in ocean lithosphere plate: S.E. Indian Ridge	Forsyth, D.	Brown Univ	Yes		IOP (P) TECP 10/84 LITHP 10/84 SOHP 10/84		US Indian Ocean Workshop
112/B	10/2/84	Lithosphere Targets	Kennett, J. (on behalf of SOP)	URI	Some		SOP (P) LITHP 10/84 TECP 10/84		SOP Proposal, link to Prop. 89/B and 91/B
113/B	10/2/84	Agulhas Plateau	Kennett, J. (on behalf of SOP)	URI	Yes		SOP (P) SOHP 10/84 TECP 10/84		SOP Proposal See props.116/B & 139/B

115/B	10/10/84	Deep sea drilling on the Agulhas Plateau and adjacent basins	Herb,R. hansli,H.	Univ. Bern Switz. ESF	Some	Yes	IOP SOHP TEC	10/84 10/84 10/84		Revised 4/85 See props.114/B & 139/B
116/B	10/10/84	Comparative data on deep sea drilling on 90°E & Chagos-Laccadive Ridges for palaeo-oceanog.purposes;evaluation of advantages & disadvantages	Oberhansli, H. Herb,R.	Univ. Bern Switz. ESF	Some	Yes	IOP SOHP	10/84 10/84	Approved 6/85	Revised 4/85
117/B	10/22/84	Proposal for drilling in the northern Red Sea	Cochran, J.B.	LDGO	Yes	Some	SOHP TECP IOP	9/84 9/84 9/84	Approved 6/85	Immature proposal rec'd 9/84;revised 10/84
118/B	11/2/84	Middle-late Cenozoic strati--graphy, chronology, paleo--environmental history off East Africa: correlation with hominoid sites	Kennett, J. Brown, F.H. Howell, C., et al	URI Univ.Utah UCBerkeley	Yes	No	SOHP IOP	10/84 10/84	Approved 6/85	Includes views of LDGO Paleoclimates and Evolution Workshop
119/B	12/3/84	History of the early opening of the Gulf of Aden resulting rifting of old oceanic lithosphere	Stein, C.A.	Northwest. Univ.	Some	Yes	IOP SOHP TECP LITHP	12/84 12/84 12/84 12/84		See Props.57/B, 134/B & 219/B
120/B	12/10/84	Oceanic drilling in Atlantis II Deep, Red Sea	Zierenberg,R.A Shanks, W.C. Von Damm, K.L.	U.S.G.S.	Yes		IOP LITHP TECP	12/84 12/84 12/84	Approved 6/85	
121/B	12/10/84	Ocean drilling in the Exmouth & Wallaby Plateaus & Argo Abyssal Plain, E.Indian Ocean	von Rad,U. Exon, N.F. Symonds,P.A. Willcox,J.B.	BGR, FRG BMR, Australia	Yes	Yes	IOP SOHP TECP	12/84 12/84 12/84	Approved 6/85	Australian COGS-2 proposal Revised 12/85
134/B	03/25/85	Ocean drilling in the Gulf of Aden	Girdler,R.W.	Univ. Newcastle, U.K.	Yes	Yes	IOP TECP SOHP LITHP	4/85 4/85 4/85 3/86		See Props.119/B & 219/B. Revised 2/86
135/B	03/25/85	Drilling on Broken Ridge to evaluate thermo-mechanical models of rifting	Weissel,J.K. Karner,G.D.	LDGO U.Durham, U.K.	Some	Yes	IOP TECP SOHP	4/85 4/85 4/85	Approved 6/85	
137/B	03/25/85	Oceanic drilling on the fossil ridges in the Indian Ocean	Schlich,R. Royer,J.Y. Whitechurch,H. Clocchiatti,M.	I.de Phys. d.Globe Strasb'g I.de Geol. Strasb'g Mus.Natn. d'Hist.Nat France	No	Yes	IOP TECP LITHP SOHP	4/85 4/85 4/85 4/85		Revised 8/85 French I.O.Book
138/B	03/25/85	Oceanic drilling at the Rodriguez Triple Junction Indian Ocean	Schlich,R. Munschy,M. Royer,J.Y. Montigny,R. Whitechurch,H.	I.de Phys. d. Globe Strasb'g I.de Geol Strasb'g France	Yes	No	IOP LITHP TECP	4/85 4/85 4/85		Revised 8/85 French I.O.Book

139/B	03/25/85	Oceanic drilling on the Agulhas Plateau,S.W.Indian Ocean	cquart,G. Vincent,E.	CEPM-IFP, Rueil Univ.P&M Curie, France	Some	Yes	IC 4/85 S(4/85 SOhr 4/85 TECP 4/85		See props.114/B & 115/B Revised 8/85 French I.O.Book
140/B	04/01/85	Deep drilling in the Central and Northern Red Sea axial areas	Pautot,G. Guennoc,P.	IFREMER, Brest BRGM,Brest France	Some	Yes	IOP 4/85 SOHP 4/85 TECP 4/85 LITHP 4/85	Approved 6/85	Revised 8/85 French I.O.Book
141/B	04/02/85	Drilling proposal for the Indus deep sea fan	Jacquart,G. Ravenne,C. Leclaire,L. Clocchiatti,M.	CEPM-IFP, Rueil Mus.Natn. d'Hist.Nat France	Some	Yes	IOP 4/85 SOHP 4/85		See props. 78/B & 96/B Revised 8/85 French I.O.Book
150/B	**07/01/85**	**Hard rock drilling in the S.E. Indian Ocean: 90°E ridge & Kerguelen-Gaussberg ridge**	**Frey, F.A. Sclater,J.G.**	**MIT U.Texas Austin**	**Little**	**Yes**	**IOP 7/85 LITHP 7/85 TECP 12/85**	**Approved 6/85**	**See Props. 109/C, 136/C & 196/B**
173/B	08/19/85	Drilling in the Seychelles-Mascarene Plateau,N.W.Indian Ocean	Patriat,P. Vincent,E. Jacquart,G.	I.de Phys. d.Globe Paris U.P&MCurie Paris IFP France	Yes	Yes	SOHP 8/85 IOP 8/85 TECP 8/85		French I.O.Book
183/B	08/20/85	Periplatform ooze in the Indian Ocean (Maldives)	Droxler,A. Williams,D.F. Baker,P.A.	U.South Carolina Duke U.	Some	Yes	SOHP 8/85 IOP 8/85		See Prop.97/B USSAC Carbonate Platforms Workshop Revised 9/85
196/B	**12/09/85**	**Impact of India on Asia:90°E ridge drilling to define northward motion**	**Peirce,J.**	**Petro--canada Canada**	**Some**	**Yes**	**IOP 12/85 TECP 12/85 LITHP 12/85**		**Related to Prop. 150/B**
197/B	12/16/85	Drilling on the Australian Continental Margin:Otway Basin/West Tasmanian Region	Wilcox,J.B. Branson, J.C. Exon, N.F.	BMR, Australia	Yes	Some	IOP 12/85 SOP 12/85 LITHP 12/85 SOHP 12/85 TECP 12/85		Formerly included in Prop.126/D: COGS-2 super--proposal
208/B	1/10/86	Petrological discontinuities at the ancestral triple junction in the Indian Ocean	Natland,J.H. Fisher,R.L. Mahoney,J.J.	SIO HIG	Some	Yes	LITHP 1/86 TECP 1/86 IOP 1/86		Related to Prop. 89/B
211/B	1/17/86	Deep stratigraphic tests	Arthur,M. (on behalf of SOHP)	URI	Some	Yes	SOHP 1/86 LITHP 1/86 TECP 1/86 IOP 1/86 ARP 1/86 CEPAC 1/86		Sediment & Ocean History Panel proposal
215/B	2/10/86	Pliocene-Holocene sedimentary & palaeoceanographic history of a young rifted margin, Red Sea	Richardson, M. Arthur, M.A.	URI	Some	Yes	IOP 2/86 SOHP 2/86 TECP 2/86		

219/B	3/03/86	Evolution of the Gulf of Aden	...apson,P.R.K.	Newcastle U. U.K.	No	Yes	LIT [redacted] 3/86 IOP 3/86 TECP 3/86		Related to Props. 119/B & 134/B

SOUTHERN OCEANS PROPOSALS

Ref. No.	Date Rec'd.	Title	Investigator(s)	Inst.	Site Survey Avail' Data	Site Survey Future Need	Panel Reference	PCOM Reference	Remarks
54/C	3/20/84	Southern Ocean Drilling: a. Sub-Antarctic sites b. Weddell sites	Kennett, J.P.	URI	Some	Yes	TECP SOP (P)	Approved 3/84 & 6/85	Legs 113 & 114 See proposal 160/F
73/C	08/02/84	Drilling proposal on the Antarctic margin off the Adelie Coast	Wannesson,J. et al	IFP,France	Some	Yes	TECP 2/85 SOP 2/85 SOHP 2/85		Site summary forms submitted.Revised prop. rec'd 2/85 Further rev. 8/85 French I.O.Book
108/C	10/2/84	East Antarctic continental margin	Kennett, J. (on behalf of SOP)	URI	Some		SOP (P) SOHP 10/84 TECP 10/84	Approved 6/85	Southern Ocean Panel Proposal
109/C	10/2/84	Kerguelen - Heard Plateau	Kennett, J. (on behalf of SOP)	URI	Some	Yes	SOP (P) SOHP 10/84 TECP 10/84	Approved 6/85	Southern Ocean Panel Prop.See Prop 136/C,150/B & 185/C
110/C	10/2/84	Wilkesland- Adelie continental margin	Kennett, J. (on behalf of SOP)	URI	Yes	No	SOP (P) SOHP 10/84 TECP 10/84		Southern Ocean Panel Proposal
111/C	10/2/84	Southeast Indian Ocean Ridge transect (subantarctic)	Kennett, J. (on behalf of SOP)	URI			SOP (P) SOHP 10/84 LITHP 10/84		SOP Proposal, link to Prop. 90/B and 100/B
114/C	10/2/84	Crozet Plateau	Kennett, J. (on behalf of SOP)	URI	Yes		SOP (P) SOHP 10/84		SOP Proposal
129/C	01/21/85	ODP opportunities in the Bounty Trough	Davy, B.W.	D.S.I.R. N.Zealand	Some	Yes	WPAC 1/85 SOHP 1/85 TECP 1/85 SOP 1/85		
136/C	03/25/85	Oceanic drilling on the Kerguelen-Heard Plateau	Schlich,R. Munschy,M Leclaire,L. Froelich,F.	I.de Phys. d.Globe Strasb'g Mus.Natn. d'Hist.Nat France	Yes	No	IOP 4/85 SOP 4/85 TECP 4/85 SOHP 4/85	Approved 6/85	Revised 7/85 See Props.109/C 150/B & 185/C French I.O.Book
169/C	07/30/85	Drilling on the South Tasman Rise	Hinz,K. Dostmann,H.	BGR, FRG	Yes	No	SOHP 7/85 TECP 7/85 IOP 7/85 SOP 7/85		
185/C	08/23/85	Origin,evolution & palaeo-oceanography of Kerguelen Plateau	Coffin,M.F. Colwell,J.B. et al	BMR Australia	Yes	No	SOP 8/85 IOP 8/85 SOHP 8/85 TECP 8/85 LITHP 8/85	Approved 10/85	See Props. 109/C & 136/C.Expansion of part of Prop.126/D: COGS-2 super-prop.
209/C	1/10/86	Eltanin Fracture Zone drilling	Dunn,D.	U.Southern Mississ--ippi	No	Yes	LITHP 1/86 SOHP 1/86 TECP 1/86 SOP 1/86		USSAC South Pacific Workshop

WESTERN PACIFIC OCEAN PROPOSALS

Ref. No.	Date Rec'd.	Title	Investigator(s)	Inst.	Site Survey Avail' Data	Site Survey Future Need	Reference	POCM Reference	Remarks
25/D	1/10/84	Deep sea drilling proposal on the New Hebrides arc	ORSTOM team	Centre ORSTOM, New Caledonia,Fr.			TECP 1/84		French Blue Book See Props. 184/D & 187/D
26/D	1/10/84	Succinct proposals for deep sea drilling sites on the Tonga-Kermadec Arc	NOUMEA team	ORSTOM Centre de Noumea,New Caledonia, France			TECP 1/84		French Blue Book
27/D	1/10/84	Drilling in the Sulu Sea Marginal Basin	Rangin,C.	Univ. P&M Curie Paris France	Some	Yes	TECP 7/85 WPAC 7/85 SOHP 7/85 LITHP 7/85		French Blue Book see Props.82/D & 154/D.Revised 7/85
28/D	1/10/84	Tectonic evolution of the South China Sea:marginal basin drilling proposal	Letouzey, J. Fricaud, L. Rangin, C.	IFP,France CFP,France	Some		TECP 1/84		French Blue Book
29/D	1/10/84	Transect across Ryukyu Island Arc and Okinawa Backarc Basin	Letouzey, J.	IFP,France	Yes	No	TECP 1/84		French Blue Book See Prop.145/D
42/D	3/-/84	Preliminary deep sea drilling proposal in Sunda Straits area	Huchon, P.	Univ. P&M Curie, Fr.	Yes	Yes	WPAC TECP 4/84 IOP (P)		
43/D	3/-/84	Outline of suggested ocean drilling program in the S.W. Pacific	Falvey, D.A.	BMR, Australia	Yes	Yes	WPAC (P) IOP (P) TECP 3/84		
46/D	3/5/84	Processes of continental rifting & evolution of passive continental margins; South China Sea	Hayes, D.E. Lewis, S.D. Ladd, J. Diebold,J.	LDGO	Yes	Some	WPAC 2/86 TECP 2/86 SOHP 2/86 LITHP 2/86		Related to Props. 147/D ,194/D,216/D, & 218/D.Revised 2/86.Mature prop.
47/D	3/5/84	Proposal for scientific ocean drilling along the Manila Trench subduction zone, South China Sea	Lewis, S.D. Hayes, D.E.	LDGO	Some	Yes	WPAC (P) TECP (P) 3/84		
48/D	3/5/84	Drilling in the Sulu Sea & the South China Sea	Hinz,K. Schluter,H.U.	BGR, FRG	Yes	Some	WPAC 12/85 TECP 12/85 SOHP 12/85		Revised 12/85 Mature proposal
49/D	3/5/84	Drilling proposal for the Eastern Banda Arc/Arafura Sea	Schluter, H.U. Fritsch, J.	BGR, FRG	Yes		WPAC (P)		
50/D	3/5/84	Nankai Trough and Shikoku Forearc	Kagami, H. Taira,A. et al	ORI Tokyo Japan	Yes		WPAC 8/85 TECP 8/85 LITHP 8/85		Rev.8/85 Japanese Workshop
51/D	3/5/84	ODP proposal for scientific drilling in the Sea of Japan	Tamaki,K. Honza,E. Kagami,H. Kobayashi,K.	Geol.Surv. ORI Tokyo Japan	Yes		WPAC 7/85 LITHP 7/85 TECP 7/85		See Props. 149/D & 151/D.Revised 7/85.Mature prop. Rel. to Props.168/D & 198/D. Japanese Workshop

52/D	3/12/84	The Solomon Sea - a suggested drilling target	Milsom, J.	Univ. College, London,UK			WPAC 4/84		
67/D	7/6/84	ODP drilling on Tonga-Lord Howe Rise transect	Falvey, D.A. Exon, N.F. Willcox,B. Symonds, P.	BMR, Australia	Yes		TECP (P) WPAC (P)		See Prop.217/D
80/D	8/30/84	Sunda and Banda Arc drilling: a study of convergent margin processes	Karig, D.E. Moore, G.F.	Cornell U. Tulsa U.	Yes		IOP (P) TECP 10/84 SOHP 10/84		Revised 10/84 following US Indian Ocean Workshop
82/D	9/4/84	Drilling in the Sulu Sea, Western Equatorial Pacific	Thunell, R.	Univ. S. Carolina	Some		WPAC (P) SOHP (P) TECP 9/84		See Props.27/D & 154/D
83/D	9/5/84	Izu-Ogasawara(Bonin) Arc transect	Okada, H. Takayanagi,Y.	Shizuoka Univ.Japan Tohuku U., Japan	Yes		WPAC 9/84 TECP 9/84 LITHP 9/84		Revised 7/85 Japanese Workshop
126/D	01/14/85	Site proposals for scientific ocean drilling in the Australasian region (composite proposal)	Crook,K.A.W. Falvey,D.A. Packham,G.H.	ANU, Canberra BMR, Canberra U. Sydney Australia	Yes	Yes	SOHP 1/85 LITHP 1/85 TECP 1/85 IOP 1/85 SOP 1/85 WPAC 1/85		Composite proposal from Australian community. COGS-2 super-proposal.
127/D	01/18/85	Eastern Sunda Arc & N.W. Australian Collision: accretionary processes in a sharp transition zone of arc--continent collision	Reed,D.L. Silver,E.A. Meyer,A.W.	U.Calif., Santa Cruz ODP/TAMU	Some	Yes	SOHP 1/85 TECP 1/85 IOP 1/85 WPAC 1/85		
130/D	01/21/85	Evolution of the SW Pacific: drilling proposal for the area north of New Zealand	Eade, J.V.	N.Z.Ocean. Institute N.Zealand	Some	Yes	TECP 1/85 WPAC 1/85 LITHP 1/85 SOHP 1/85		
131/D	03/11/85	Banda Sea Marginal Basin: trapped ocean crust & displaced continental borderland	Silver,E.A.	U.Calif., Santa Cruz	Some	Yes	WPAC 3/85 TECP 3/85 LITHP 3/85 SOHP 3/85		see Prop.154/D
132/D	03/11/85	ODP Proposal on drilling the TTT-type Triple Junction area off Boso,Japan	Ogawa,Y. Fujioka,K.	Kyushu U. ORI,Tokyo Japan	Yes	No	WPAC 3/85 TECP 3/85 SOHP 3/85		Rel.to Prop.148/D Rev.6/85 Japanese Workshop
144/D	05/28/85	Arc-arc collision in the southernmost Kuril forearc off Hokkaido	Seno,T. Kimura,G. Tamaki,K.	Int.Inst. Seism. & Earthquake Eng. Kagawa U. Geol.Surv. Japan	Yes	No	WPAC 5/85 TECP 5/85		Japanese Workshop
145/D	05/29/85	Left-lateral dislocation of the Ryukyu Arc system	Ujiie,H.	U. of the Ryukyus Japan	Some	No	WPAC 5/85 TECP 5/85		See Prop.29/D Japanese Workshop
146/D	05/30/85	Toyama Submarine Fan,eastern Japan Sea	Klein,G.deV.	U.Illinois (Urbana)	Some	Yes	WPAC 5/85 TECP 5/85 SOHP 5/85		Revised 7/85

147/D	06/06/85	Preliminary proposal for scientific drilling in the South China Sea	Wang,P. Zhu,X al	Tongji U., PRC	Some	Yes	WPAC 6/85 TECP 6/85 SOHP		Related to Props. 46/D ,194/D,216/D & 218/D
148/D	06/07/85	Drilling the oblique subduction zone near the TTT-type triple junction area,off central Japan (Sagami Basin)	Ogawa,Y. Fujioka,K. Takeuchi,A. Tanahashi,M.	Kyushu Univ. Japan	Yes	No	WPAC 6/85 TECP 6/85		Related to Prop.132/D Japanese Workshop
149/D	07/01/85	Active spreading centre of the Sea of Japan	Kimura,M. Kato,Y. Yamamoto,S.	U. of the Ryukyus, Japan	Some	Yes	WPAC 7/85 LITHP 7/85 TECP 7/85		See Props.51/D & 151/D Japanese Workshop
151/D	07/01/85	Opening of the Japan Sea: mantle plume origin	Wakita,H.	U.Tokyo Japan	Some	Yes	WPAC 7/85 TECP 7/85 LITHP 7/85		See Props. 51/D & 149/D Japanese Workshop
154/D	07/01/85	Entrapment of Banda-Celebes--Sulu Basin	Hilde.T.W.C.	TAMU	Some	Yes	WPAC 7/85 LITHP 7/85 TECP 7/85 SOHP 7/85		See Props.27/D,82/D & 131/D
156/D	07/08/85	Potential massive sulfide in Kita-Yamamoto Trough,Japan Sea	Urabe,T.	Geol.Surv. Japan	Yes	No	WPAC 7/85 SOHP 7/85 LITHP 7/85 TECP 7/85		Japanese Workshop
157/D	07/10/85	Palaeo-oceanography & marine climatic history of the Japan Sea	Koizumi,I. Oba, T.	Osaka U. Kanazawa U Japan	Yes	Yes	WPAC 7/85 SOHP 7/85		Related to Ideas I-52 Japanese Workshop
158/D	07/15/85	Geochemistry & sedimentology of active oceanic margin & back-arc basin sediments: Japan Sea and Trench	Matsumoto,R. Minai,Y.	Tokyo U. Japan	Some	Yes	WPAC 7/85 SOHP 7/85 TECP 7/85		Japanese Workshop
163/D	07/18/85	Zenisu Ridge (Nankai Trough) - intraplate deformation of a young marginal basin	Rangin,C. Lallemant,S. Le Pichon,X.	U.P&MCurie Paris France	Yes		WPAC 7/85 TECP 7/85 SOHP 7/85		See Prop.177/D
164/D	07/18/85	Japan Trench & Japan-Kuril Trenches Junction	Jolivet,L. Cadet,J-P. Lallemand,S.	U.P&MCurie Paris U.Orleans France	Yes		TECP 7/85 WPAC 7/85 SOHP 7/85		Further revision after KAIKO-2
165/D	07/18/85	Shikoku Basin ocean crust	Chamot-Rooke,N Le Pichon,X.	U.P&MCurie Paris France	Yes		TECP 7/85 WPAC 7/85 SOHP 7/85		
166/D	07/22/85	Instantaneous opening of the Japan Sea;evolution of the mantle wedge	Tatsumi,Y. et al	Kyoto U. Japan	Yes		TECP 7/85 LITHP 7/85 WPAC 7/85		Japanese Workshop
167/D	07/22/85	Okinawa Trough back-arc rifting & Ryukyu Trench system	Uyeda,S. et al	ERI,Tokyo U. Japan	Yes		TECP 7/85 LITHP 7/85 WPAC 7/85		Japanese Workshop
168/D	07/22/85	Japan Sea:sedimentology of siliceous sediments	Iijima,A. Matsumoto,R. Tada,R.	Tokyo U. Japan	Yes		SOHP 7/85 TECP 7/85 LITHP 7/85		Related to Prop. 52/D Japanese Workshop

170/D	07/30/85	Valu Fa Ridge,Lau Basin; back-arc spreading center	N. ...on,J.L. Vallier,T.L. Hawkins,J.	USGS,Menlo Park SIO	Yes	No	LITHP 7/85 TECP 7/85 WPAC 7/85		USSAC West Pacific Workshop
171/D	08/13/85	Bonin Region;problems of intra-oceanic arc-trench development	Taylor,B.	HIG	Yes	Some	WPAC 8/85 LITHP 8/85 TECP 8/85		USSAC West Pacific Workshop
172/D	08/19/85	Mariana forearc,arc & back-arc basin	Fryer,P.	HIG	Yes	Some	WPAC 8/85 LITHP 8/85 TECP 8/85		USSAC West Pacific Workshop
174/D	08/19/85	Forearc tectonics: Japan Sea	Otsuki,K.	Tohoku U. Japan	Yes	Yes	WPAC 8/85 TECP 8/85		Japanese Workshop
175/D	08/19/85	Origin of inner wall of the Japan Trench	Niitsuma,N. Saito,Y.	Shizuoka U Nat.Sci. Mus.Tokyo Japan	Yes		WPAC 8/85 TECP 8/85		Japanese Workshop
176/D	08/19/85	Southernmost Japan Trench & migration of triple junction	Niitsuma,N.	Shizuoka U Japan	Yes		WPAC 8/85 TECP 8/85		Japanese Workshop
177/D	08/19/85	Zenisu Ridge:intra-oceanic plate shortening	Taira,A. et al	ORI Tokyo Japan	Yes	No	WPAC 8/85 TECP 8/85 SOHP 8/85		Japanese Workshop See Prop.163/D
178/D	08/19/85	Nankai Trough forearc	Shiki,T. Miyake,Y.	Kyoto U. Japan	Yes		WPAC 8/85 TECP 8/85		Japanese Workshop
179/D	08/19/85	Daito Ridges region: N.W. Philippines Sea	Tokuyama,H. Konishi,K. Kimura,M.	ORI Tokyo Kanazawa U Ryukyu U. Japan	Yes	Yes	TECP 8/85 WPAC 8/85 LITHP 8/85		Japanese Workshop
180/D	08/19/85	Kita-Amami basin & Amami Plateau,N.Philippines Sea	Shiki,T.	Kyoto U. Japan	Yes	Yes	TECP 8/85 LITHP 8/85 WPAC 8/85		Japanese Workshop
181/D	08/19/85	Petrological & tectonic evolution of wedge mantle & forearc crust along the Izu-Ogasawara-Mariana forearc	Ishii,T.	ORI Tokyo Japan	Yes	Yes	TECP 8/85 LITHP 8/85 WPAC 8/85		Japanese Workshop
184/D	08/21/85	Drilling in the Papua New Guinea/Bismark Sea Region	Exon,N.F. Marlow,M.S. et al	BMR Australia USGS Manlo Park	Yes	Yes	LITHP 8/85 WPAC 8/85 TECP 8/85		See Props.25/D & 187/D
187/D	09/13/85	Drilling in the New Hebrides Arc Region, S.W.Pacific	Taylor,F.W. Lawver,L.A.	U.T.Austin	Some	Yes	WPAC 9/85 LITHP 9/85 TECP 9/85		See Props.25/D & 184/D USSAC West Pacific Workshop

189/D	10/07/85	Drilling in the Tonga Ridge-Lau Ridge region	Stevenson,A.J. Scholl,D. Vallier,T.	USGS	Yes	Yes	WPAC 10/85 LITHP 10/85 SOHP 10/85 TECP 10/85		USSAC West Pacific Workshop See Prop.220/D
190/D	10/07/85	Drilling in the arc-ridge collision zone in the central New Hebrides island arc (Vanuatu)	Fisher,M.A. Greene,H.G. Collot,J-Y. Recy,J.	USGS ORSTOM France	Yes	Yes	WPAC 10/85 LITHP 10/85 SOHP 10/85 TECP 10/85		USSAC West Pacific Workshop
191/D	10/07/85	Drilling in arc-plateau collision zone & intra-arc basin,central & western Solomon Islands	Vedder,J.G. Bruns,T.R.	USGS	Yes	Yes	WPAC 10/85 LITHP 10/85 SOHP 10/85 TECP 10/85		USSAC West Pacific Workshop
194/D	11/26/85	Drilling in the South China Sea	Liu,D. Luo,Y. Chen,D.	CSCOD,Soc. of Oceanog PRC	Yes	Yes	TECP 11/85 WPAC 11/85 SOHP 11/85		Related to Props. 46/D,147/D,216/D & 218/D
198/D	12/16/85	Ulleung (Tsushima) Basin: Neogene tectonics & sediment--ation	Chough,S.K. et al Honza,E. Klein,G.deV. Cadet,J-P Hilde, T.W.C.	Seoul Nat. U.,Korea Geol.Surv. Japan U.Illinois Orleans U. France TAMU	Yes	Yes	WPAC 12/85 TECP 12/85 SOHP 12/85		Related to Prop. 51/D
206/D	12/30/85	Great Barrier Reef:slope sedimentation adjacent to a mixed reefal-carbonate/ epiclastic shelf	Davies,P.J. Symonds,P.A. Feary,D.	BMR, Australia	Some	Yes	SOHP 12/85 WPAC 1/86 TECP 3/86		USSAC Carbonate Platforms Workshop Formerly included in Prop.126/D: COGS-2 super-prop. Rev.3/86
216/D	2/13/86	Drilling in the South China Sea	Rangin,C. Pautot,G. Briais,A. Tapponnier,P.	U.P&MCurie Paris IFREMER IPG Paris France	Yes	No	LITHP 2/86 TECP 2/86 WPAC 2/86		Related to Props. 46/D,147/D,194/D & 218/D
217/D	2/13/86	Drilling on the Lord Howe Rise	Mauffret,A. Mignot,A.	Univ.P&M Curie, France	Some	Yes	SOHP 2/86 WPAC 2/86 TECP 2/86		See Prop.67/D
218/D	2/13/86	Manila Trench & Taiwan Collision Zone, South China Sea	Lewis,S. Hayes,D.E. Lundberg Suppe Dorsey,R.	LDGO Princeton U.	Some	Yes	TECP 2/86 LITHP 2/86 WPAC 2/86		Related to Props. 46/D,147/D,194/D & 216/D
220/D	3/20/86	Three drilling sites in the Lau Basin	Hawkins,J.W.	SIO	Some	Yes	TECP 3/86 LITHP 3/86 WPAC 3/86		USSAC West Pacific Workshop See Prop. 189/D

CENTRAL & EAST PACIFIC OCEAN PROPOSALS

Ref. No.	Date Rec'd.	Title	Investigator(s)	Inst.	Site Survey Avail' Data	Site Survey Future Need	Panel Reference	PCOM Reference	Remarks
2/E	12/16/82	Regional seismic reflection profiles across the Middle America Trench and convergent margin of Costa Rica	Crowe, J.C. Buffler, R.T.	U.T.Austin	Yes	No	AMP (P) Middle America WG (P)		Reference to DSDP Panels
3/E	6/27/83	Drilling flexural moats flanking the Hawaiian Islands	Watts, A.B. ten Brink,U. Detrick, R.S. Brocher,T.M.	LDGO URI USGS	Yes	Yes	CEPAC 2/84 TECP 11/85 LITHP 2/84		Revised 11/13/85
4/E	undated	Drilling in the Tuamoto Archipelago(French Polynesia)	Okal, E.A.	Yale Univ.	Some		CEPAC 2/84 LITHP 2/84		
8/E	9/18/83	Ridge crest subduction along the Southern Chile Trench	Cande,S.C.	LDGO	Some	Ref'd to JOI SSP8/84	TECP 7/84	Approved 9/84	
14/E	1/10/84	Zero age drilling: East Pacific Rise 13° N.	Bougault, H.	COB,France	Yes		CEPAC 2/84 LITHP 2/84 TECP	Approved 9/84	Related to Prop. 76/E. French Blue Book
34/E	2/-/84	Pacific-Aleutian-Bering Sea (PAC-A-BERS) proposal	Scholl, D. Vallier. T.	USGS,Menlo Park					
37/E	2/25/84	Costa Rica drilling - a test of the duplex model	Shipley, T. Moore, G. Buffler, R. Silver, E. Lundberg, N.	U.T.Austin UCSC Princeton	Some		CEPAC (P) TECP (P) 8/84 SOHP 8/84		Revised 8/84
75/E	8/13/84	Gulf of California drilling	Becker, K. et al	SIO	Some	Yes	LITHP (P) TECP (P) SOHP (P) CEPAC (P)		
76/E	8/17/84	Proposal for drilling oceanic crust at the axis of the East Pacific Rise	Francheteau,J. Hekinian, R.	Univ.Paris IFREMER, Brest			CEPAC (P) CEPAC 11/84 LITHP 11/84	Approved 9/84	Revised 11/84.Rel. to Prop.14/E.
84/E	9/10/84	Peru Margin drilling proposal	Kulm, L. Hussong,D	HIG		Needed	TECP 9/84 CEPAC (P) SOHP 9/84	Approved 9/84	Leg 112
123/E	12/28/84	Regional drilling studies at IPOD Site 501/504	Mottl,M.J.	WHOI	Yes	No	LITHP 1/85 CEPAC 1/85	Approved 6/85	Related to Prop. 124/E.Leg 111
124/E	01/02/85	Proposal to deepen Hole 504B	Becker,K. (on behalf of LITHP)	S.I.O.	Yes	No	LITHP 1/85 CEPAC 1/85	Approved 9/84	Leg 111 See Prop.160/F
142/E	04/02/85	Equatorial Pacific depth transect: Ontong Java Plateau	Mayer,L. Berger,W.H.	Dalhousie U.Canada SIO	Some	Yes	CEPAC 4/85 SOHP 4/85		See Prop.222/E

153/E	07/01/85	Three drill sites in the S.E Pacific	Mays, J.D.	LDGO	Yes	No	SOP	7/85 7/85 7/85	
182/E	08/19/85	Sounder Ridge,Bering Sea: Kula Plate stratigraphy	Taira,A.	ORI Tokyo Japan	Yes	Yes	TECP SOHP CEPAC	8/85 8/85 8/85	Japanese Workshop
192/E	11/06/85	Drilling on the Baranoff Fan S.E.Gulf of Alaska	Stevenson,A.J. Scholl,D.W.	USGS	Yes	Yes	CEPAC SOHP TECP	11/85 11/85 11/85	USSAC NORPAC Workshop
195/E	12/05/85	Palaeoenvironment & palaeo--climate in the Bering Sea	Sancetta, C.	LDGO	Some	Yes	SOHP CEPAC	12/85 12/85	USSAC NORPAC Workshop
199/E	12/30/85	Pelagic sediments in the sub-Arctic gyre region of the north Pacific	Janecek,T.R. Morley,J.J. Sancetta,C.	LDGO	Some	Yes	SOHP CEPAC	12/85 12/85	USSAC NORPAC Workshop
202/E	12/30/85	Geological evolution of N. Marshall Islands:drilling carbonate banks with related palaeoceanographic,tectonics & lithospheric objectives	Schlanger,S.O.	North-western U	Yes	Yes	SOHP CEPAC LITHP TECP	12/85 12/85 1/86 1/86	USSAC Carbonate Platforms Workshop
203/E	12/30/85	Drilling guyots in the central Pacific	Winterer,E.L. Natland,J. Sager,W.	SIO TAMU	Some	Yes	SOHP CEPAC LITHP TECP	12/85 12/85 1/86 1/86	USSAC Carbonate Platforms Workshop
207/E	1/3/86	Tectonic evolution of the Bering Sea Basin & Aleutian Ridge	Rubenstone,J.	LDGO	Some	Yes	TECP LITHP CEPAC	1/86 1/86 1/86	USSAC NORPAC Workshop
210/E	1/13/86	Drilling on the Yakutat Continental Margin, N.E.Gulf of Alaska	Lagoe,M.B. Armentrout,J.	UT Austin Mobil	Yes	Some	TECP SOHP CEPAC	1/86 1/86 1/86	USSAC NORPAC Workshop
212/E	1/27/86	Drilling off northern & central California	Greene,H.G.	USGS	Yes	Yes	TECP SOHP CEPAC	1/86 1/86 1/86	
213/E	1/27/86	Processes controlling accretion in the central Aleutian Subduction Complex	McCarthy,J. Scholl,D.W.	USGS	Yes	No	TECP CEPAC	1/86 1/86	USSAC NORPAC Workshop
214/E	1/31/86	Drilling the trench-slope break:Central Aleutian Forearc	Ryan,H.F. Scholl,D.W.	USGS	Yes	Some	TECP CEPAC	1/86 1/86	USSAC NORPAC Workshop
221/E	3/24/86	Late Cenozoic palaeoenvironments:APC/XCB drilling in the Equatorial Pacific	Pisias,N.G. Mix,A.C. Lyle,M.	OSU	Some	Yes	SOHP CEPAC TECP LITHP	3/86 3/86 3/86 3/86	
222/E	3/28/86	Ontong-Java Plateau: origin, sedimentation history and tectonic processes	Kroenke,L.W. Coulbourn,W. Mahoney,J. Resig,J.	HIG	Yes	Yes	SOHP LITHP TECP CEPAC	3/86 3/86 3/86 3/86	See Prop.142/E

GENERAL & INSTRUMENTAL PROPOSALS

Ref. No.	Date Rec'd.	Title	Investigator(s)	Inst.	Site Survey Avail' Data	Site Survey Future Need	Panel Reference	PCOM Reference	Remarks
13/F	1/5/84	Setting-up of a water column research laboratory	Wiebe,P.H.	WHOI	N/A	N/A			
53/F	3/19/84	Vertical seismic profiling for AODP	Phillips, J.D. Stoffa, P.L.	U.T.Austin			DMP 4/84	Approved 9/84	Part of Leg 102
66/F	7/5/84	Laboratory studies of basalt rock cores on SEDCO/BP 471-Principal horizontal stresses in the oceanic crust from anelastic strain recovery and other rock studies	Whitmarsh,R.B.	IOS, UK	Some		DMP (P) LITHP (P)		
69/F	7/23/84	Rock stress measurement in the southern part of the Norwegian Sea	Stephansson,O.	Univ. of Lulea Sweden,ESE			TECP 7/84 DMP 9/84		Revised 7/84
70/F	7/23/84	Borehole seismic experiment at DSDP sites 417 and 603	Stephen, R. Mayer, L. Shaw. P.	LDGO	Some		DMP (P) LITHP (P)	Approved 9/84	Part of Leg 102
128/F	01/21/85	Proposal for an ODP hole dedicated to the physical properties, mechanical state, and structural fabric of deforming sediments in accretionary prisms	Karig, D.E.	Cornell Univ.	Yes	No	SOHP 1/85 TECP 1/85 DMP 1/85 WPAC 1/85		
133/F	03/21/85	In situ sampling of pore fluids during ODP	McDuff, R.E. Barnes, R.O.	U. Washington	N/A	N/A	DMP 3/85 LITHP 3/85		
143/F	04/15/85	In situ magnetic susceptibility measurements with a well log probe	Krammer,K. Pohl,J.	Inst. fur Allgemeine u.Angewan-te,Munich, FRG	N/A	N/A	ARP 4/85 LITHP 4/85 DMP 4/85		Revised 12/30/85 Related to Props. 200/F & 201/F
152/F	07/01/85	Borehole seismic experiments in the Tyrrhenian Sea	Avedik,F. Dietrich,M.	IFREMER Brest U.de Brest France	N/A	N/A	ARP 7/85 DMP 5/85		
155/F	07/01/85	Downhole measurements in the Japan Sea	Suyehiro,K. Kinoshita,H. Kanazawa,T. Yamamoto,K.	Chiba, U. Tokyo,U. Tohuku,U. Japan	Yes	Yes	WPAC 7/85 DMP 7/85 TECP 7/85 LITHP 12/85		Japanese Workshop
155/F	07/01/85	Downhole measurements in the Japan Sea	Suyehiro,K. Kinoshita,H. Kanazawa,T. Yamamoto,K.	Chiba, U. Tokyo,U. Tohuku,U. Japan	Yes	Yes	WPAC 7/85 DMP 7/85 TECP 7/85 LITHP 12/85		Japanese Workshop
159/F	07/15/85	Monitoring changes in the physical conditions across a trench system (Izu-Mariana--Sagami-Suruga)	Kinoshita,H. et al	Chiba U. Japan	Yes	N/A	WPAC 7/85 DMP 7/85 TECP 7/85		Japanese Workshop

160/F	07/15/85	Geophys.conditions of the top most part of the lithospheric plate in the Weddell Sea	Kinoshita, H. Kaminuma, K. Shibuya,K. Kobayashi,K.	Chiba U. Nat.Inst. Pol.Res. ORI Tokyo Japan	Yes	N/A	S[redacted] 7/85 DMP 7/85 TECP 7/85 LITHP 7/85		See proposal 54/C Japanese Workshop
161/F	07/15/85	Magnetic field & Water flow measurements at high temps. in holes accompanying hydrothermal circulation	Kinoshita,H. Kobayashi,K. Furuta,T.	Chiba U. ORI Tokyo Japan	N/A	N/A	DMP 7/85 WPAC 7/85 CEPAC 7/85 ARP 7/85 LITHP 7/85		See proposal 124/E Japanese Workshop
162/F	07/17/85	Offset VSP on the S.W.Indian Ocean Ridge fracture zones	Stephen,R.A.	WHOI	Some	Yes	DMP 7/85 IOP 7/85 LITHP 7/85 SOP 9/85 TECP 9/85		Related to proposal 89/B
186/F	08/28/85	Hydrology & heat flux in the S.W.Indian Ocean fracture zones	von Herzen,R.	WHOI	N/A	N/A	IOP 8/85 DMP 8/85 LITHP 8/85		See Prop.89/B
188/F	09/18/85	Alternate proposal for Leg 109;395A borehole geophysics & 418A drilling & geophysics	Salisbury,M. (on behalf of DMP)	Dalhousie U. Canada	Yes	No	DMP 9/85 LITHP 9/85 ARP 9/85		
193/F	11/06/85	Cooperative study of upper ocean particulate fluxes in the Weddell Sea	Biggs,D.C.	TAMU	N/A	N/A	SOP 11/85 SOHP 11/85		Proposal to NSF
200/F	12/30/85	Borehole magnetometer logging on Leg 109 (MARK)	Bosum,W.	BGR, FRG	N/A	N/A	DMP 12/85 ARP 12/85 LITHP 12/85		Related to Props. 143/F & 201/F
201/F	12/30/85	High precision borehole temperature measurements on Leg 109 (MARK)	Kopietz,J.	BGR, FRG	N/A	N/A	DMP 12/85 ARP 12/85 LITHP 12/85		Related to Props. 143/F & 200/F

IDF SUGGESTIONS FOR DRILLING (RECEIVED BY JOIDES OFFICE)

Ref.#	Title	Proponent	Institution	Date Recd	Refer. to Panel	Comments
1	Objectives/suggestions for Mediterranean Leg	Hsu, K	ETH Zurich, Switzerland (ESF)	7/13/83	DSDP/PMP and OPP	
2	Study of sedimentation patterns on the Barbados Ridge and in the Tobago and Grenada Basins	Saunders, J.B.	Naturhistorisches Museum, Basel Switzerland (ESF)	7/19/83		Formal proposal requested
3	Future potential sites in the Gulf of Mexico	Bouma, A.H. Coleman, J.	Gulf Research	1/4/84	TECP (P)	Reference to this in letter on other subject. Memo never received by JOIDES Office.
4	Outline of multi-topical program of Ocean drilling: NE Pacific Ocean	INPAC Group (Johnson,P.)	Univ. of Washington	1/6/84	TECP (P)12/85 CEPAC(P)12/85 LITHP(P)12/85 SOHP (P)12/85 DMP (P)12/85	Workshop convened for Feb. 1985 Workshop Report received 12/30/85 & distributed to Panels as indicated Formal proposals requested 12/85.
5	Proposed objectives for ODP: Gulf of Mexico	King, J.	Univ. of Rhode Island	1/6/84		
6	Suggested drill sites in the NE Pacific Ocean	Malpas, J.	Memorial University, Canada	1/11/84	CEPAC 2/84 LITHP	
7	Some geological problems and areas of regional interest (Central and Eastern Pacific)	Okada, H.	Shizuoka University, Japan	2/15/84	CEPAC (P)	
8	Peru-Columbia Trench: provisional proposal	Aubouin, J.	Univ. P. & M. Curie Paris, France	2/-/84		Formal proposal requested
9	New Jersey Site 1A	Miller, K.G. Mountain, G.S.	LDGO	3/-/84		
10	General drill sites off Cuba	Case, J.E.	USGS, Menlo Park	3/19/84		
11	Suggestions for drilling on young seamounts in the Eastern Pacific	Batiza, R.	Washington Univ. Missouri	4/9/84	LITHP (P)	
12	Heterogeneity of the mantle	Schilling, J-G. O'Nions, R.K. White, R.M. Frey, F.A. Albarede, F.	URI Cambridge Univ., UK Max-Planck.Inst.,FRG MIT CNRS Nancy, France	5/21/84	LITHP 6/84	

13	Gulf of Aden drilling 1987	Girdler, R.W.	Newcastle Univ., UK	6/25/84	IOP 7/84	Further letter 12/30/85.Formal prop. requested 2/85,12/85 & 1/86.Prelim. prop.received 3/85.See Props.119/B & 219/B
14	Potential coring objectives and site locations for future deep sea drilling in the Mediterranean Sea	Thunell, R.	Univ. of S. Carolina	7/6/84	TECP (P)	Formal proposal requested.
15	South Atlantic palaeo-circulation	Robert, C.	IPOD Cttee, France	7/6/84	ARP SOHP	
16	ODP drilling in the tectonic area of Japan	Klein, G. deV.	Univ. of Illinois (Urbana)	7/6/84	TECP (P)	See proposal 146/D
17	Ocean margin drilling project around Japan	Ogawa, Y.	Kyushu Univ., Japan	7/6/84	TECP (P) 12/83	Proposals 132/D & 148/D receieved 6/85
18	Some drill sites in the Indian Ocean	Luyendyk, B.P.	Univ. of California, Santa Barbara	8/22/84	IOP (P) TECP 10/84	
19	Suggestions for drilling in the Indian Ocean - Indus Fan	Kidd, R.B.	IOS, UK	9/4/84	IOP 9/84 TECP 9/84	Withdrawn.
20	Drilling in the Indus Fan	Haq, B.U.	Exxon	9/8/84	IOP (P)	Formal proposal requested.
21	Drilling in the SW Somali Basin	Scrutton, R.A.	Edinburgh Univ., UK	9/8/84	IOP (P)	Formal proposal requested. Withdrawn No further action.
22	Drilling in the Atlantis-II Deep, Red Sea	Zierenberg, R.A	USGS, Menlo Park	9/8/84	IOP LITHP TECP	Proposal 120/B received 12/10/84.
23	Transect: Northern Exmouth Plateau to Argo Abyssal Plain	Willcox, J.B. Symonds, P.A. (supported by Gradstein, F.)	BMR, Australia (Atlantic Geoscience Centre-Canada)	9/8/84	IOP SOHP 12/84 TECP	Proposal 121/B received 12/10/84.
24	Drilling stratigraphic bore-hole off the coast of East Africa	Burckle, L.H.	LDGO	10/16/84		Formal proposal requested. Advised to liaise with Kennett (see pro-posal 117/B)
25	Investigation of hydrothermal processes and basalt dia-genesis in the Gorda Ridge	Hart, R. Fisk, M.	OSU	10/16/84		Formal proposal requested.

26	Deep sea drilling targets near loci of arc volcanism in Marianna back-arc basin	Fryer, P.	HIG	10/19/84	TEC[redacted] LITHP 10/84 WPAC	Proposal 172/D received 08/19/85
27	Philippines Workshop	Wolfe, J.A.	Taysan Copper Inc., Philippines	11/14/84		Copied to Chairman, WPAC
28	Transect of upwelling zone sedimentation and palaeoceanography of cold circulation 15°-30°S	Kelts, K.	ETH-Zurich, Switzerland (ESF)	11/16/84	CEPAC (P)	Formal proposal requested.
29	504B Drilling	Purdy, G.M. (LITHP)	WHOI	12/10/84	LITHP	Proposal 124/E received 1/2/85
30	Drilling non-hotspot seamounts	Batiza, R.	Washington Univ., Missouri	12/19/84		
31	Physical and mechanical properties of core material	Karig, D.E.	Cornell University	12/19/84		Proposal 128/F received 1/21/85
32	Banda Sea Marginal Basin: trapped ocean crust & displaced continental borderland	Silver, E.A. Jongsma,D. Audley-Charles, M.G. von der Borch, C.C.	Univ. California,S. Cruz Vrije Univ,Amsterdam Netherlands (ESF) Univ.Coll.London (U.K.) Flinders Univ., Adelaide (Australia)	12/28/84	WPAC (P) TECP 12/84	Formal proposal in the name of Silver only received 03/11/85. See Proposal 131/D
33	Workshop on Western Pacific drilling (USSAC)	Hawkins,J.W.	S.I.O.	01/02/85	WPAC(P)	Report of Workshop rec'd 08/20/85. See proposals 170/D,171/D ,172/D, 187/D,189/D,190/D,191/D & 220/D
34	Drilling in the East Pacific Rise (N. & S. of Clipperton F.Z.)	Fox, P.J. Macdonald,K.C.	U.R.I. Univ. California,S. Barbara	01/02/85	LITHP(P)	No formal proposal likely until at least late 1985.
35	Oceanic plateaus (Kerguelen-Heard)	Schlich,R.	Inst.de Phys.d.Globe Strasbourg (France)	01/03/85	IOP(P)	Rec'd from IOP Chairman See proposal 136/C
36	Upper Mesozoic & Cenozoic palaeoenvironments of S.Indian Ocean (Kerguelen-Gaussberg Plateau)	Leclaire,L.	Mus.Nat.d'Histoire Naturelle, Paris (France)	01/03/85	IOP(P)	Rec'd from IOP Chairman

37	South Antarctic Ocean palaeooceanography (Crozet & Enderby Basins)	Leclaire,L.	Mus.Nat.d'Histoire Naturelle, Paris (France)	01/03/85	IOP	Rec'd from IOP Chairman
38	Sedimentary record of Indonesian volcanic activity	Leclaire,L.	Mus.Nat.d'Histoire Naturelle, Paris (France)	01/03/85	IOP(P)	Rec'd from IOP Chairman
39	Palaeoenvironment and geodynamics of Central Indian Basin	Leclaire,L.	Mus.Nat.d'Histoire Naturelle, Paris (France)	01/03/85	IOP(P)	Rec'd from IOP Chairman
40	Study of shear margin and fault (Davie Ridge)	Leclaire,L.	Mus.Nat.d'Histoire Naturelle, Paris (France)	01/03/85	IOP(P)	Rec'd from IOP Chairman See revised proposal 30/B
41	Carbonate, clastic and other deposits in the Indian Ocean	Jaquet,J.M.	Univ. of Geneva Switzerland (ESP)	01/03/85	IOP(P)	Rec'd from IOP Chairman
42	Tectonics of the Red Sea	Pautot,G	Centre de Brest IFREMER (France)	01/03/85	IOP(P)	Rec'd from IOP Chairman See proposal 140/B
43	Magma generation & mantle heterogeneities, Indian Ocean (Rodriguez T.J.,S.E.,S.W., Central Indian Ocean Ridges)	Schlich,R.	Inst.de Phys.d.Globe Strasbourg (France)	01/03/85	IOP(P)	Rec'd from IOP Chairman See proposal 138/B
44	Suggested drilling in the East Indian Ocean	Falvey,D.A.	BMR,Canberra Australia	01/03/85	IOP(P)	Rec'd from IOP Chairman
45	Drilling on the Shaka Rise	Sclater,J.G.	UT Austin	07/20/84		Paperwork not available Previously classified as Prop. 71/C
46	Drilling proposal on the Antarctic margin off the Adelie Coast	Wannesson,J.	IFP,France	08/02/84	IOP(P)	Only site summary forms received Previously classified as Prop. 73/C Full proposal received 02/25/85(73/C)

47	Madeira Abyssal Plain	Duin,E.J.T. Kuijpers,A. Schuttenhelm, R.T.E.	Geol.Survey of Netherlands (ESP)	06/21/84		Not full proposal. Previously classified as Prop.63/A
48	Bare-rock drilling for hydrothermal objectives:Legs 106 & 109	Rona,P.A.	NOAA,Miami	02/25/85	LITHP(P)	Full proposal requested Further note about Leg 109 received 1/10/86
49	Stratigraphic tests proposal	SOHP	Panel proposal	04/02/85	IOP(P)	Proposal received 1/17/86.
50	Proposal for a workshop on scientific seamount drilling (proposal to NSF)	Watts,A.B.	LDGO	04/11/85		
51	Hydrogeology experiments to be performed during the first two years of ODP (proposal to NSF)	Becker,K. Gieskes,J.	SIO	05/22/84		
52	Back-arc spreading & fresh-water sediment: Japan Sea	Koizumi,I.	Osaka Univ., Japan	05/03/85	WPAC	Related proposal 157/D received 7/85 Formal proposal requested Japanese Workshop
53	Geochemical significance of hard-rock drilling in the S.E.Indian Ocean	Prey,F.A.	M.I.T.	05/14/85	IOP(P)	Proposal 150/B received 07/01/85
54	Workshop to evaluate upper ocean dynamics studies in conjunction with ODP operations (proposal to NSF)	Miller,C.B. Wiebe,P.H.	OSU WHOI	07/01/85	SOHP	
55	Manila forearc & opening of the Japan Sea	Niitsuma,N.	Shizuoka Univ.,Japan	08/19/85		Japanese Workshop Formal proposal requested
56	Accurate dating of the Hawaiian hotspot	Niitsuma,N.	Shizuoka Univ.,Japan	08/19/85		Japanese Workshop Formal proposal requested
57	DSDP Hole 462A,Nauru Basin	Fujii,N.	Kobe Univ.,Japan	08/19/85		Japanese Workshop Formal proposal requested

55	Manila forearc & opening of the Japan Sea	Niitsuma,N.	Shizuoka Univ.,Japan	08/19/85		Japanese Workshop Formal proposal requested
56	Accurate dating of the Hawaiian hotspot	Niitsuma,N.	Shizuoka Univ.,Japan	08/19/85		Japanese Workshop Formal proposal requested
57	DSDP Hole 462A,Nauru Basin	Fujii,N.	Kobe Univ.,Japan	08/19/85		Japanese Workshop Formal proposal requested
58	NORPAC drilling proposals	Scholl,D.	USGS	11/13/85		USSAC Workshop
59	Scientific rationale for establishing long-term ocean bottom observatory/laboratory systems	Delaney,J.R.	U.Washington	11/12/85		Formal proposal requested
60	Mantle peridotite drilling	Bonatti,E.	LDGO	10/22/85		Related to 89/B
61	Basin margin exploration : S.E.Asia	Mcmanus,J.W.	URI	11/19/85		
62	Fracture zone drilling in the Indian Ocean	Natland,J.	SIO	12/30/85		Formal proposal requseted. Related to 89/B.
63	USSAC Workshop on Carbonate Banks & Platforms Report	Winterer,E.L.	SIO	12/30/85		USSAC Workshop See Props. 183/B;202/E;203/E;204/A; 205/A;206/D
64	USSAC North Pacific (NORPAC) Workshop Report	Scholl,D.W.	USGS	1/23/86	CEPAC Dist.at SOHP PCOM TECP mtg. LITHP 1/86	USSAC Workshop. See props.192/E;195/E;199/E;207/E; 213/E;
65	Ocean drilling in S.Red Sea	Hemleben,C.	U.Tubingen,FRG	1/27/86		Formal proposal requested
66	Geochemical reference holes on active convergent margins	Langmuir,C.	LDGO	2/24/86		
67	Evolution of the Sulu Sea	Fernandez,J.C.	Bureau of Mines, Manila,Philippines	3/03/86	WPAC(P)	Formal proposal requested

CHECKL . OF WORKSHOPS RELEVANT TO DEVELOPMENT OF ! .ING PLANS

WORKSHOP TITLE	DATE HELD	CONVENERS/ CONTACT POINT	SPONSORING ORGANISATION	PROPOSALS REF. #	IDEAS/SUGGESTIONS REF. #	ODP DRILLING LEGS
Future of Scientific Ocean Drilling in the Australasian Region	3/12/81	Cook,P.J. Crook,K.A.W. Frakes,L.A.	Consortium for Ocean Geosciences of Australian Universities (COGS)	See 126/D (COGS-2)		
Some proposals for ODP	1/1/84	Aubouin,J.	Comite Scientifique ODP (France)	15/A;16/A;17/A; 18/A;19/A;20/A; 21/A;22/A;23/A; 24/A;25/D;26/D; 27/D;28/D;29/D; 30/B;31/B		101,103,107,110, Red Sea,(EPR back-up)
Future Drilling in the Indian Ocean	6/5/84	Curray,J.R. Prell,W.L. Weisel,J.K.	NSF (U.S.A.)	56/B;57/B;61/B; 62/B;65/B;80/D; 86/B;87/B;88/B; 89/B;90/B;91/B; 92/B;93/B;94/B; 95/B;96/B;97/B; 98/B;99/B;100/B; 101/B;102/B;103/B; 104/B;105/B;106/B; 107/B		Neogene Package, Red Sea, SWIR, Broken Ridge, 90°E Ridge, Intraplate Deformation, Mascarene Plateau
Philippines Workshop	-	Wolfe,J.A.			I-27 (WPAC)	
Western Pacific arc-backarc systems	6/25/85	Hawkins,J.	USSAC	170/D;171/D;172/D; 187/D;189/D;190/D; 191/D;220/D	I-33	
Scientific Seamount Drilling	TBA 1986	Watts,A.B.	USSAC		I-50	
Workshop on Carbonate Banks and Guyots	8/6/85	Winterer,E.L. Schlager,W.	USSAC	183/B;202/E;203/E; 204/A;205/A;206/D	I-63	
Workshop to evaluate upper ocean dynamic studies in conjunction with ODP operations (SPECTROS)	11/4/85	Miller,C.B.	NSF (U.S.A.)		I-54	
Japanese ODP Workshop	5/17/85	Taira,A. Kobayashi,K.	ODP National Committee (Japan)	50/D;51/D;83/D; 132/D;144/D;148/D; 149/D;151/D;155/F; 156/D;157/D;158/D; 159/F;160/F;161/F; 166/D;167/D;168/D; 174/D;175/D;176/D; 177/D;178/D;179/D; 180/D;181/D;182/E	I-52;I-55;I-56; I-57	

Ocean Drilling in the Australasian Region (COGS-2)	11/12/84	Crook,K.A.W. Falvey,D.A. Packham,G.H.	Consortium for Ocean Geosciences of Australian Universities (COGS)	121/b,126/D;185/C; 197/B;206/D		Argo/Exmouth
Neogene Palaeoclimates and Evolution	9/11/84	Denton,G.H. Partridge,T.C. Vrba,E.S. Burckle,L.H.		118/B		Neogene Package
South Pacific	4/20/86	Cieselski,P. Mammericx,J. Weissel,J.K. Anderson,J.	USSAC	209/C		
North Pacific Drilling (NORPAC)	9/22/85	Scholl,D.	USSAC	192/E;195/E;199/E; 207/E;210/E;213/E; 214/E;	I-58	
International NE Pacific Activities Consortium (INPAC)	2/20/85	Johnson,P. Rea,D.	NSF (U.S.A.)		I-14	
Cretaceous Black Shales	12/6/85	Arthur,M. Meyers,P.	USSAC			
Physical & mechanical properties measurements in ODP samples	TBA 1986	Karig,D.	USSAC			
Palaeomagnetic objectives of ODP	TBA 1986	Virosub.K.L.	USSAC			
Gulf of California drilling activities consortium (GULFAC)	TBA 1986		USSAC			

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DEEP OBSERVATION AND SAMPLING OF THE EARTH'S CONTINENTAL CRUST, INC.

1755 Massachusetts Ave., N.W. - Suite 700 Washington, D.C. 20036 (202) 234-2100

DOSECC UPDATE - 2 MARCH 1986

DOSECC (Deep Observation and Sampling of the Earth's Continental Crust, Inc.) is a private, non-profit corporation formed in 1984 by a consortium of universities to design and manage a national continental scientific drilling program. DOSECC UPDATE is a source of communications for those interested in the drilling program. Items in the newsletter include information about DOSECC activities and plans, upcoming scientific drilling-related meetings, details of U.S. research drilling projects, descriptions of holes being drilled by industry, government, and academe that may provide opportunities for add-on scientific investigations, and information on continental scientific drilling programs in other countries. If you wish to change your address or add other recipients to the mailing list, complete the enclosed response form.

DOSECC SCIENTIFIC INVESTIGATIONS PROPOSAL SUBMISSION PROCEDURES

Proposals requesting support from DOSECC should address scientific experiments that can best be conducted with the use of the drill to provide samples or access for downhole measurements. Requests for support of workshops to define experiments and to assemble potential principal investigators in multifaceted projects are also encouraged. Acceptance of a proposal is preceded by review by DOSECC's Science Advisory Committee (SAC) of the scientific merit and cost effectiveness of the proposed experiment, assessment of the drilling cost and feasibility, and appraisal of proposed downhole measurements and sample studies.

The following general guidelines will be used to prepare proposals for original scientific projects and for experiments to be added on to projects, but will not be used for the awarding of contracts such as drilling, logging, and technology, which are based upon specifications and work statements. Announcements inviting scientific proposals to specific projects will be made as opportunities arise. However, proposals appropriate for DOSECC support may be submitted at any time. Scientific investigation proposals submitted to DOSECC will involve at least two steps; pre-proposals and final proposals. A pre-proposal submitted to SAC should outline briefly the scientific experiments involved and indicate their significance in terms of expected gain in new knowledge. Pre-proposals must specify the reasons that drilling is required. The pre-proposal is then distributed by SAC to reviewers for evaluation of scientific

merit. Following return of the reviews, SAC will consider the proposal at its next meeting and then inform the author of its decision. If the recommendation is favorable, a meeting will be arranged between the principal investigator (PI), the DOSECC Drilling and Engineering staff, and the Downhole Measurements Advisory Panel to evaluate the feasibility of the proposal, estimate costs, and consider downhole measurements. If SAC recommends not to support the pre-proposal, review comments will be provided to the PI, who may then consider submission of a revised proposal or request funding for a workshop to refine or modify the original proposal.

Following provisional acceptance of the pre-proposal and consultation with the DOSECC technical support groups, the PI will prepare a final proposal containing a detailed science plan, a drilling, logging, and sampling plan, and a budget. The final proposal is reviewed by SAC and, if found acceptable, receives a priority for inclusion in DOSECC's overall program. DOSECC management acts on SAC recommendations by placing the project in the drilling schedule. Once a scientific drilling project is approved and a priority is set, SAC appoints a Science Experiments Panel (SEP) to work with the PI to refine the project and insure broad awareness in the scientific community of research opportunities. Public announcements will solicit secondary proposals made possible by the proposed hole. Secondary proposals will be reviewed by SEP and assigned a priority, depending on compatability and relationship with the primary project for which the hole is being drilled, their scientific merit, and the estimated cost, SEP submits recommendations regarding secondary experiments to SAC for final review and approval. This entire procedure may take as long as two (2) years.

Funding for workshops may be requested to modify proposals that have been rejected or to develop new experiments and projects. Negotiations for support of workshops are initiated by a letter proposal of not more than two or three pages to SAC, which will either approve the workshop, request more detail, or reject the request. SAC will assist in workshop arrangements. Lead time should be at least six (6) months.

DOSECC anticipates ephemeral opportunities to arise periodically in the form of add-on experiments to drilling activities of industry or government. These may involve deepening a hole or additional experiments or sampling in a hole already planned or being drilled. In such cases, a special proposal may be presented to SAC requesting rapid scientific consideration and response.

For details on proposal formats check the appropriate box on the enclosed response form.

ILLINOIS SUPERDEEP DRILL HOLE WORKSHOP

A scientific workshop will be held in Champaign, IL, 1-4 April 1986, to refine proposals for drilling a superdeep scientific research drill hole in southern Illinois. The principal purpose of the workshop is to prepare a detailed report on the scientific objectives of the project, including downhole instrumentation.

Committees will develop experimental plans in the subject areas of tectonics and structure; basin analysis; basement age, composition, and evolution; hydrology, hydrodynamics, and brine geochemistry; environmental studies; rock mechanics; hydrocarbon studies; ore deposit studies; and downhole technology. For further information, contact J. James Eidel at the Illinois State Geological Survey Division, Natural Resources Building, 615 East Peabody Drive, Champaign, IL 61820 [telephone (217) 333-5166].

INTERNATIONAL CONTINENTAL LITHOSPHERE SYMPOSIUM

The Inter-Union Commission on the Lithosphere (ICL) is holding a Symposium on The Continental Lithosphere - Structure, Composition, and Processes, 7-12 April 1986 at Karlsruhe University, Federal Republic of Germany. The symposium is co-sponsored through ICL Working Group 6 (Structure, Physical Properties, Composition, and Dynamics of the Lithosphere-Asthenosphere) and ICL Coordinating Committee 4 (Continental Drilling). The symposium will focus on the exploration of the continental lithosphere by seismic reflection/refraction and other sounding methods and by drilling.

On Friday, 11 April, a special session on continental scientific drilling will be held. Invited speakers will discuss the plans for and results of research drilling projects in various countries. In addition, a poster session on the German Continental Deep Drilling Program (KTB) will be presented, and a panel discussion on application of geophysical survey data to siting scientific drill holes will be held. On 12 April, an excursion will be conducted to the Rhinegraben Valley and Black Forest, a possible target area for the KTB.

Information on the Symposium can be obtained through Prof. Dr. H. Wilhelm or Prof. Dr. K. Fuchs, Geophysikalisches Institut, Universitaet Karlsruhe, Hertzstrasse 16, D-7500 Karlsruhe 21, Federal Republic of Germany [telephone (0712)/608-4558; telex 78257 0 GEOK D].

ULTRADEEP CORING CONFERENCE

The Engineering Foundation has scheduled a conference on "Core Drilling for Ultradeep Scientific Targets: An Engineering Challenge." It is to be held 20-25 April 1986 at Sky Valley Resort, Dillard, Georgia. Matt Walton, Director, Minnesota Geological Survey, is Chairman, Co-Chairmen are Frank J. Schuh, Sr., Exxon Resources Technology and John C. Rowley, Los Alamos National Laboratory.

DOSECC is investigating a long term program to drill ultradeep holes for scientific targets. One proposed target is to drill a 10- to 15-km hole in crystalline rocks of Southern Appalachia. To achieve this, considerable challenges lie ahead. The meeting is designed to explore these challenges and point to possible solutions.

For further information and application form, contact Engineering Foundation Conferences, 345 East 47th Street, New York, NY 10017.

CONTINENTAL SCIENTIFIC DRILLING GENERAL WORKSHOP

On 12-14 June 1986, DOSECC will sponsor a general workshop at the South Dakota School of Mines and Technology to offer scientists the opportunity to present proposals for continental scientific drilling projects. The workshop is open to individuals and groups pursuing research that requires drilling samples and/or downhole measurements to answer basic questions concerning the structure, properties, and dynamics of the continental crust. The agenda will include discussion of DOSECC's program; related Department of Energy and U.S. Geological Survey projects; DOSECC 1986 projects; new proposals for drilling and related experiments; and current drilling, coring, and logging capabilities, constraints, and costs.

Abstracts should be submitted to SAC by 15 April 1986 to be considered for the workshop program. Interested parties should contact DOSECC by checking the appropriate box on the enclosed response form.

DOSECC DRILLING PROJECTS SCHEDULE

Science Experiments Panels (SEP) have met on the Cajon Pass (CA) and Creede (CO) research drilling projects. Deepening of the Cajon Pass hole from 1.3 km to 5 km is expected to begin in late 1986. DOSECC plans to issue a Request for Bids for a drilling contractor in March. A final proposal from the project principal investigators will be completed in May, followed ~~by an information~~ session at the American Geophysical Union Annual Spring Meeting in Baltimore, MD, on 22 May, to solicit proposals for additional science experiment proposals. Drilling for the Creede project should begin in 1987 with shallow (1 km) holes in the caldera moat sediments.

DOSECC WORKSHOP ON CRATONIC PROCESSES

A DOSECC-sponsored workshop was held at St. Louis, MO, 23-26 February 1986, to bring together expertise in geology of the continental interior. Logging, downhole measurements, and regional geophysics were discussed for the purpose of planning a comprehensive program of scientific drilling in the continental interior aimed at understanding the processes important in the origin and evolution of the stable craton. The workshop organizer, W. R. Van Schmus, Department of Geology, University of Kansas, Lawrence, KS 66045-2124 [telephone: (913) 864-4974], can provide further information.

SALTON SEA SCIENTIFIC DRILLING PROJECT

In mid- February 1986, the Salton Sea Scientific Drilling Project in Niland, CA, reached a depth of 9450 ft in a diabase intrusion, with an equilibrium temperature of about 350°C. Thirty-three 30 spot cores have been collected, and a flow test was conducted at about 6200 ft. Lost circulation has caused problems in drilling and coring. The target depth of 10,000 ft should be reached in the near future. For further information contact Prof. Wilfred A. Elders, Institute of Geophysics and Planetary Physics, University of California, Riverside, CA 92521.

SECOND INTERNATIONAL SCIENTIFIC DRILLING SYMPOSIUM

Scientists from 20 countries met in Seeheim, Federal Republic of Germany (FRG), October 4-6, 1985, to exchange information about continental scientific drilling programs in progress or planned. The Second International Symposium on Observation of the Continental Crust through Drilling was sponsored by Coordinating Committee 4 (Continental Drilling) of the Inter-Union Commission on the Lithosphere and was presented as the 4th Alfred Wegener Conference.

Scientific sessions, augmented by poster sessions were held and a post-meeting field trip was conducted to two proposed locations for the German Continental Deep Drilling Program (KTB) -- one in the Schwarzwald and the other in the Oberpfalz. Sessions dealt with national programs, with special emphasis on the background for the KTB. In addition, techniques and problems in drilling, logging, and sampling were discussed. Presentations will be published.

Proceedings of the First International Symposium, held 20-25 May 1984 in Tarrytown, NY, have been published: Raleigh, C.B. (ed) 1985. Observation of the Continental Crust through Drilling I. Springer-Verlag, N.Y. 364 pp.

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☐ Send registration materials for DOSECC General Workshop, 12-14 June 1986, Rapid City, South Dakota

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☐ I plan to submit a proposal abstract for the DOSECC General Workshop (NOTE: Abstracts are due by 15 April 1986)

☐ Send DOSECC Scientific Investigations Proposal Submission Procedures

☐ Send information on membership in DOSECC

☐ Send DOSECC UPDATE to the following:

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(Detach and return)