

JOIDES



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*File*

May 1, 1985

TO: JOIDES Planning Committee Meeting Attendees

FROM: Darryl Keith, JOIDES Office Science Coordinator *DJK*

SUBJECT: Draft Minutes of the 10-12 April 1985 Planning  
Committee Meeting, Norfolk, Virginia

Enclosed please find your copy of the draft minutes of the Norfolk POCM meeting. Please review them for their accuracy and completeness, making corrections where necessary. Corrected versions of the draft minutes should be mailed, telephoned, or telexed to the JOIDES Office by 17 May 1985. The JOIDES Office telex number is 9103802848, answerback JOIDES URI UD. Thank you for your time and cooperation.

*Corrections phoned to  
Keith 5/17  
JMG*

RECEIVED MAY 6 1985



JOINT OCEANOGRAPHIC INSTITUTIONS  
DEEP EARTH SAMPLING

JOIDES PLANNING COMMITTEE MEETING  
 CENTER FOR MARINE STUDIES  
 OLD DOMINION UNIVERSITY  
 NORFOLK, VIRGINIA  
 10-12 APRIL 1985

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JOIDES PLANNING COMMITTEE MEETING  
CENTER FOR MARINE STUDIES  
OLD DOMINION UNIVERSITY  
NORFOLK, VIRGINIA  
10-12 APRIL 1985

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12	JOIDES Office	Publishing of leg prospectuses, drill site summaries, and results in detail in the JOIDES Journal
14	Wireline Logging Services	Production of a publication with logging time estimates for standard and specialty tools
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17	Science Operator	Correction of deficiencies in the satellite navigation system on the D/V JOIDES RESOLUTION
19	ARP Chairman	Development and presentation of a prioritized list of drilling objectives for the Tyrrhenian Sea from MED-WG

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24	JOIDES Office	Inclusion of the guidelines for data presentation for safety review in the Special Issue of the JOIDES Journal
27/28	Science Operator	Review arrangements for Legs 104 and 105
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30	PCOM Subcommittee (Larson, McDuff, and Von Herzen)	Development of reference list of prioritized downhole tools
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38	PCOM Chairman	Ask the SOHP and SOP Chairmen for more detailed information for Indian Ocean drilling priorities
38	PCOM Chairman	Ask the SOP Chairman for more specific details concerning Subantarctic and Weddell Sea drilling
39	PCOM Members	Bring map of favorite Indian Ocean draft drilling plan to Hannover meeting
39	PCOM Members	Invite J. Peirce and D. Cowan to serve as SSP and TECP Chairmen respectively.

JOIDES OFFICE  
GRADUATE SCHOOL OF OCEANOGRAPHY  
UNIVERSITY OF RHODE ISLAND  
NARRAGANSETT, RHODE ISLAND

DRAFT MINUTES

10-12 APRIL 1985  
CENTER FOR MARINE STUDIES  
OLD DOMINION UNIVERSITY  
NORFOLK, VIRGINIA

PCOM Members:

R. Larson, Chairman (University of Rhode Island)  
H. Beiersdorf (Federal Republic of Germany)  
R. Buffler (University of Texas)  
J-P. Cadet (France)  
S. Gartner (Texas A&M University)  
D. Hayes (Lamont-Doherty Geological Observatory)  
J. Honnorez (University of Miami)  
M. Kastner (Scripps Institution of Oceanography)  
J. Malpas (Canada)  
R. McDuff (University of Washington)  
R. Moberly (University of Hawaii)  
H. Schrader (Oregon State University)  
R. Von Herzen (Woods Hole Oceanographic Institution)

Observer:

A. Taira (Japan)

Liaisons:

G. Brass (National Science Foundation)  
D. Fornari (LDGO, Wireline Logging Services)  
L. Garrison (ODP/TAMU Science Operator)

Guests:

J. Austin (Leg 101 Co-chief)  
M. Salisbury (Leg 102 Co-chief)

Others:

J. Clotworthy (Joint Oceanographic Institutions Inc.)  
D. Keith (JOIDES Office)  
A. Mayer (JOIDES Office)  
D. Rucker (Joint Oceanographic Institutions Inc.)

## 527 INTRODUCTION AND OPENING REMARKS

R. Larson, Planning Committee Chairman, convened the 10-12 April 1985 meeting held at the Center for Marine Studies at Old Dominion University. Harris Stewart, Director, welcomed meeting participants to the Norfolk, VA area.

Dr. A. Taira was welcomed as the Japanese representative to the Planning Committee. Dr. Taira presently has observer status until October 1985, when Japan has agreed to sign a full MOU and he replaces K. Kobayashi who is now the Japanese representative to the JOIDES Executive Committee.

The opening remarks were closed by asking meeting attendees to agree to the use of a tape recorder to aid in recording the meeting procedures.

### ADOPTION OF MEETING AGENDA

H. Schrader moved (seconded by Moberly) that the Committee adopt the agenda.

Vote: for 12, against 0, abstain 0.

## 528 MINUTES OF THE AUSTIN PLANNING COMMITTEE MEETING

H. Schrader requested that his affiliation be corrected from the University of Oregon to Oregon State University.

R. Moberly moved that the minutes be amended to include the following listing of major themes by oceans to be added to LITHP report:

1. Atlantic: bare rock drilling at MARK
2. Eastern Pacific: 504B drilling and EPR hydrothermal drilling of lesser interest than 1 or 2
3. Indian: single hot spot trace
4. Western Pacific: young back-arc spreading

Vote: for 6, against 2, abstain 4.  
(amendment carried)

The Committee suggested that a copy of these amendments be sent to M. Purdy, LITHP Chairman.

It was moved by Kastner, and seconded by Malpas, to adopt the minutes with the requested amendments.

Vote: for 12, against 0, abstain 0.

The PCOM Chairman reported that action items resulting from the Austin PCOM meeting had been completed by the JOIDES Office.

#### 529 JOIDES EXECUTIVE COMMITTEE REPORT

R. Larson, PCOM liaison, reported that at the EXCOM meeting on 18-19 March 1985 in Miami, Florida, the United Kingdom, European Science Foundation and Australia were unable at this time, to join ODP as full or consortium members. However, the possibility of an ESF/Australian consortium may occur in the near future and was strongly encouraged by EXCOM. Further, a resolution was passed by the EXCOM that states that the entry of the United Kingdom to the ODP other than as a full member was not acceptable or in the best interest of ODP or to the other full members. The resolution further urged the UK to become a full member by October 1985.

The EXCOM recommended that the ESF, Australia and the UK continue to be invited to EXCOM as personal guests of the EXCOM Chairman as long as a possibility of membership exists. EXCOM further recommended that all Australian, ESF and UK names be deleted from the JOIDES PCOM and panels. This proviso is dated as of the sailing date of the RESOLUTION. EXCOM did approve the attendance of guests to the panel meetings but only when it was absolutely necessary for scientific planning. Representation on panels was limited to those representatives of member nations except where a scientific specialty was needed. A problem potentially exists with the Mediterranean WG because 4 panel members are from the ESF or the UK; the expulsion of these people could lead to a dismembering of the Working Group.

The EXCOM Chairman read a telex from the President of ESF in which he stated that ESF is prepared to enter ODP as a full member as soon as negotiations with Australia are completed.

Regarding the staffing of scientists from developing countries, the EXCOM agrees with the position taken by the PCOM. In summary, the PCOM stated that wherever possible, scientists from developing countries should be invited on a personal level and that relevant international scientific organizations should be contacted (formally and informally). Panels were also asked to explore opportunities for scientific collaboration with non-ODP members.

#### Discussion:

Schrader (OSU): What is the present listing of ESF members?



Larson: To date, the ESF consists of 9 countries: Norway, Sweden, Italy, Greece, Belgium, Denmark, Switzerland, the Netherlands and Spain.

Honnorez (UM): What is the status of O. Eldholm as he is a member of the Atlantic Regional Panel, a co-chief scientist and at the same time an ESF representative?

Larson: Eldholm no longer represents the ESF on the ARP. He has been designated as a co-chief scientist on Leg 104 on an ad hominem basis.

Hayes (LDGO): An alternative that was discussed by the EXCOM was that Eldholm participate on Leg 104 as a member of the scientific crew but not in the capacity of co-chief scientist.

It was noted by members of the PCOM that the UK and ESF panel members who were eliminated previously could be reappointed on the basis of their scientific specialities. (More discussion of panel memberships will be found under that appropriate section in the minutes.)

### 530 NATIONAL SCIENCE FOUNDATION REPORT

G. Brass (NSF) reported that the NSF budget passed its appropriations hearings in the Science and Technology Committee of the U.S. House of Representatives with approximately a 4% real growth. The bill has next to be authorized by the House and Senate.

The reorganization of the Oceanography Section of NSF has been completed with G. Brass becoming the Program Director of the ODP. The Ocean Science Research Section (OSRS) has been returned to the 4 traditional programs (i.e. chemical, biological, geological, physical) of the Foundation. ODP has been moved to a new section of Oceanographic Facilities Support Section (OFSS) with S. Toye as the Section Head. The vacancy created by the promotion of G. Brass to ODP Program Director will be filled by R. Buffler, the PCOM representative from the University of Texas at Austin, as from September 1985.

#### MEMBERSHIP

##### Canada

Canada will sign a Memorandum of Understanding with NSF for full membership in the Ocean Drilling Program on 15 April 1985. With this signing, the ODP now has 3 full members.

##### Japan

Japan will join ODP as a full member on or before 1 October 1985. At that time, the ODP will consist of 4 full members.

ESF/UK

Draft MOUs are under consideration with the ESF and UK that would continue their participation as candidate members until they make a commitment of full membership to ODP (i.e. Japanese solution). It is expected that if these countries join under the "Japanese solution," a commitment to full membership will occur on or before the beginning of next fiscal year. It is not the intention of NSF to allow them to extend their participation in ODP beyond 30 September 1985.

**Discussion:**

Von Herzen (WHOI): How has the lack of a UK membership affected the financial situation for this year and will things look better in the future?

Brass: Not having the UK (or a 5th member) in ODP has resulted in a \$2.5M deficit in the budget. So the Program needs to find one more member. With the number of membership opportunities available, we are optimistic that another member will be found to fulfill the plan of 5 international partners.

Von Herzen: Has NSF prepared a document which addresses the lack of a fifth member and its impact on the cost overrun for the construction of the laboratory stack on the RESOLUTION and its effect on the U.S. science program?

Brass: A summary of the cost overrun matter can be found in the minutes of the EXCOM meeting in Narragansett. Brass noted that he did not think that it was entirely appropriate to fully discuss funding activities of the U.S. Science Program in view of the international nature of the ODP.

Beiersdorf (FRG): Is the NSF wholly responsible for the DSDP phase out?

Brass: Monies for the phase out come from co-mingled funds.

Cadet (France): Does the ODP budget contain funds to guard against major problems (e.g. the loss of a couple of drill strings)?

Brass: On both the short- and long-term outlooks, there is not much flexibility in the budget to guard against major problems.

Von Herzen: After reviewing the Narragansett EXCOM minutes, it is still not clear how the cost overrun occurred.

Garrison (TAMU): The size of the overrun is still not fully known as negotiations over the costs are continuing.

Brass: This issue is a policy matter and not a planning matter. I have been asked to urge the PCOM to consult with their EXCOM counterparts on this matter.

Hayes (LDGO): Science planning will be affected by the cost overrun matter and therefore should be addressed by PCOM.

### 531 JOINT OCEANOGRAPHIC INSTITUTIONS INC REPORT

J. Clotworthy (Vice President, JOI Inc.) reported that JOI has put together a management proposal to cover the next 3 years of ODP. The program plan for FY 86 is not yet complete but is being done with guidance from NSF and input from the subcontractors (TAMU, LDGO, and the JOIDES Office). The program plan (scheduled for completion on 1 May) is being prepared on the basis of 4 international members, and it should be ready for discussion at the EXCOM meeting on 5 June and at PCOM on 25 June. The program proposal will be ready by 1 June.

JOI in its original management program to NSF scheduled a program performance evaluation that was to be conducted every 2 years. Within the coming year, a review panel of 6 members (whose appointments will be filled by the end of April) will conduct evaluations of the drillship at St. John's port call in October and will visit TAMU and LDGO. A report of these findings will be submitted to the President of JOI, J. Baker, and ultimately to NSF.

The report of the ad hoc review panel that met in March to evaluate the ODP Databank will be ready by the June PCOM meeting.

#### Discussion:

Hayes (LDGO): Will the FY 86 program plan be given to PCOM for comment or on an information only basis?

Clotworthy: If compromises are needed, JOI will approach the PCOM with alternatives and will request guidance for their prioritization.

Brass (NSF): If alternatives exist, they will contain scenarios for budget surpluses as well as budget deficits.

Kastner (SIO): If the program plan is ready by 1 May 1985 and the full proposal by 1 June 1985, is it possible that the PCOM could review both documents at the 25 June meeting?

Clotworthy: It is probable that the program plan will be available and possible that the proposal may be available.

Larson (URI): Will the program plan contain a full budget with options?

Clotworthy: The plan will contain a full budget with alternatives.

Several PCOM members noted that a review of the Miami EXCOM minutes indicated that a number of items are planned to be deferred from the FY 85 budget into FY 86. These planned deferrals will impact on science planning in the long term and members expressed apprehension on receiving this information after the fact.

Members stressed that it is very important to have PCOM input into the budgetary planning and urged the development of several "crisis" scenarios to be presented at the next PCOM meeting. It was further suggested that a standby committee be formed to address any problems that may occur in FY 86. To aid in financial planning the PCOM suggested that JOI develop a list of items to which ODP is contractually bound by leasing or other arrangements.

### 532 SCIENCE OPERATOR REPORT

L. Garrison (ODP/TAMU) reported.

#### CO-CHIEF STAFFING

Leg 106 (MARK I) - J. Honnorez and R. Detrick  
Leg 107 (Tyrrhenian Sea) - not yet selected  
Leg 108 (NW Africa) - not yet selected  
Leg 109 (MARK II) - W. Bryan and J. Juteau

#### SHIPBOARD SCIENCE STAFFING

Staffing for Leg 104 (Norwegian Sea) under the co-chiefs J. Thiede and O. Eldholm has been completed. For leg 105 (Baffin Bay/Labrador Sea), selections are due after the co-chief meeting at the end of May.

#### BARE ROCK DRILLING

Garrison reported that the plans for hard rock drilling are proceeding on schedule and that requests for proposals for the high resolution black and white television system are out.

Discussions have been held with Southern International concerning the drilling operations and a conference between one of the co-chiefs on Leg 106 and S.I. will combine the proposed drilling operation with scientific objectives. Presently, drilling is based on a mud motor design in which the drill pipe does not rotate. The design further calls for the use of an inner core barrel that would simultaneously recover core samples while continuing drilling activities. The rotating

design reduces the effect of fatigue and compression during drilling and predicts a very stable configuration.

#### CLEARANCES

The clearance to drill in Spanish waters has been received which acknowledged the invitations to include Spanish scientists among the shipboard party. However, Spain has requested an additional 4 scientific berths due to their membership of the ESF-ODP consortium. R. Kidd (Manager of Science Operations) will go to Barcelona to clarify the invitation which is one of coastal countries representation and not one of ODP representation. Kidd will also discuss ODP benefits, their participation in ESF and clarify their ODP obligations. It is hoped that this meeting will clarify the issue of participation.

Talks have occurred with the Norwegian Petroleum Directorate (NPD) and the Canadian Oil and Gas Leasing Administration (COGLA). In both countries, the protocol is to negotiate with the agencies that administer offshore petroleum activities. Both groups presented a long list of requirements to ODP that included blowout prevention, weather planning and shipboard injuries. TAMU is in communication with both agencies and it appears that many of the requirements will be waived as the RESOLUTION is a non-industry vessel. However, COGLA states that 3 requirements must be met:

1. use of a support vessel for ice spotting and tracking
2. a trained ice observer must be onboard together with a regular weatherman
3. survival suits for all personnel on the RESOLUTION

TAMU is now purchasing the survival suits (at \$350/suit) and they will be available for Legs 104 (Norwegian Sea) and 105 (Baffin Bay/Labrador Sea), and all subsequent legs.

#### Discussion:

Larson (URI): What is the status of procuring the scout vessel?

Garrison: Negotiations are in progress with private and public agencies with regard to the cost of the scout vessel. Presently, estimates are running between \$300-400 K/day. It has been suggested that the USCG NORTHWIND may be available specifically for the use of ODP.

Brass (NSF): The Coast Guard has been contacted and will consider the suggestion.

Malpas (Canada): Do the costs cover Baffin Bay of Labrador Sea or both?

Garrison: The costs cover both locations.

## REPORT ON SHIPBOARD ACTIVITIES

TAMU has developed a 2-part reporting system on the ODP Bulletin Board in the OCEAN.NET system. The first part of the series contains the latitude and longitude of the drillship while the second part, which is addressed to specific individuals, contains a weekly summary of the science report and the operations report. The second part is updated every Monday and it is not on the public bulletin board. However, all PCOM members who wish to gain access to this system will be added to the listing.

Also, TAMU reports the whereabouts of the drillship to the Defense Mapping Agency who in turn notifies the U.S. Navy and other interested parties.

### Discussion:

Schrader (OSU): During hard rock drilling will the upper 30-50 m be recoverable?

Garrison: There is no mechanical reason why the upper section cannot be recovered, provided there are no rubble zones. If rubble zones exist then it becomes necessary to stabilize the hole initially with cement. This would make recovery of the upper section difficult.

Honnorez (UM): Since the cementing process is very important in stabilizing the drill hole, are there plans to obtain different types of cements?

Garrison: Studies of the various kinds of cements have been done but these were done in regard to cementing in the guidebase. The data suggests that 2 types of cements are needed.

Kastner (SIO): How long will it take to establish the drill hole?

Garrison: If there are no problems, it should take 2 weeks to stabilize and drill the hole.

Larson (URI): In terms of unrecoverable hardware, what is the cost of those items that will be left on the seafloor?

Garrison: Estimates show that approximately \$225K (\$60K-hardware + \$165K-cement, jell, casing) worth of material will remain on the ocean floor.

Moberly (HIG): Will the guidebase frame be specially coated for re-entry at a later date?

Garrison: Presently, a standard organic zinc coating is applied. What will happen to the coating in the next 40-50 years is unknown.

Honnorez: What is SEDCO's rôle in the guidebase project and are they responsible for the selection of the drilling cement?

Garrison: In a couple of weeks, SEDCO will deliver to ODP the design for the guidebase. The selection of drilling cements should be discussed when the co-chief scientists for MARK I and Southern International representatives meet.

Honnorez: Do you have an idea as to scheduling of the system?

Garrison: Two complete systems will be ready by August 1985. A final design for the guidebase will be ready by late April and requests for estimates to build will be sent out shortly thereafter. At about that time, testing of the Meso-Tech sonar and television camera will occur. One proposed camera was eliminated due to the cost (approx. \$40K), so if one could be borrowed or rented from one of the oceanographic institutions there is room on the bracket for it.

Schrader: Is the drilling rate slower on the RESOLUTION than on CHALLENGER and will it increase in the future?

Garrison: The rate did start off slower than CHALLENGER but, this is due to a number of reasons - the use of the iron roughneck and various other tools and the inexperience of the drilling crew. At the end of Leg 101 (Bahamas), the rate did increase and was comparable to CHALLENGER.

Schrader: Could you give us an update on shipboard instrumentation and their installation status?

Garrison: The XRF was not onboard for Leg 101 but was onboard for Leg 102. The cryogenic magnetometer will be installed during the Norfolk port call. The underway geophysics lab is complete but cavitation problems exist with the 12.5 kHz and 3.5 kHz transducers. EDO Western has been made aware of the problem and will try to solve it before the *midnight jutting* ship ~~goes~~ into drydock.

#### CHANGES TO LEG 103 (GALICIA BANK) DRILLING PLANS

TAMU advised the PCOM Chairman that in early February, based on their best estimates for drilling and recovery rates of the scientific objectives for Leg 103, an additional 7 days was required to be added to the Leg. After consulting with the action committee (Larson, Honnorez, Beiersdorf), it was recommended that 5 days be added to Leg 103 at the expense of 5 days from Leg 102 (W. North Atlantic). This resulted in the abandoning of the scientific objectives at DSDP Site 603. The co-chiefs on Leg 103 were asked to devise other time-saving possibilities to achieve the scientific goals in order and as prioritized at the Austin PCOM.

Presently, plans call for drilling the lherzolite ridge initially within the 7-day time frame as decided in Austin. The original plan was to then drill sites 4A and 4B, with a re-entry cone set at Site 4B for deeper penetration. This has been changed to save time and the consensus is to now drill for the objectives of 4A and 4B at one site. The plan calls for setting a cone at 4B with continuous coring. It should also be noted that depending the site has the approval of the Safety Panel down to a depth of 2 km. The time saved is approximately 2 days.

**Discussion:**

PCOM members expressed concern over the timing of the request after discussions and decisions were made at the Austin PCOM.

Hayes (LDGO): Scenarios and drilling times were discussed and decided on in mid January at the Austin PCOM. Between then and early February more time is required. How did this happen?

Garrison: The initial drilling estimates presented in Austin contained operational days but no contingency time was built in. More time is required to account for contingencies.

Kastner (SIO): I was informed that the time request is the result of a mistake in the calculation of drilling time estimates and not so much one of contingency times.

Larson (URI): The mistake is the result of miscalculations in determining the time it would take to drill the Cretaceous section of the site. The root of the problem was a misapplication of the drilling rates used during DSDP drilling of the Vigo Seamount. The time request is a combination of correcting the mistake plus contingency time.

Kastner: How much contingency time is planned in the change to drilling the entire section of Site 4B?

Garrison: Those figures are not known at this time. Legs are adjusted to give every leg sufficient operational days to meet objectives and in the case of Leg 103 adjustments had to be made.

Gartner (TAMU): If this time request is over-estimated, can it be used to supplement additional legs?

Garrison: It is unlikely that the time will be used to supplement other legs due to scheduling commitments.

Various PCOM members expressed concern with regard to the trading of days between Legs 102 and 103. It was suggested that perhaps all the PCOM members should have been polled for advise rather than leaving such



decisions to an ad hoc committee. There was general agreement that in the future once drilling times were determined to meet agreed scientific objectives there should be every effort made to adhere to them. It was suggested that the ODP reinstate a DSDP procedure in which panels were contacted at such times in order to avoid having a theme suffer.

#### LEG 106 (MARK I) SITE SURVEY

The site survey for the MARK I area is presently scheduled to be conducted in May 1985. Plans call for using a variety of new equipment on CSS HUDSON to conduct the SeaMARC side scan and deep towed camera surveys.

The Science Operator Report closed with requests from PCOM members concerning public relations material. Requests were also made for the publishing of drill site summaries and results in detail in the JOIDES Journal.

#### 533 WIRELINE LOGGING SERVICES OPERATOR REPORT

Dan Fornari reported that a general summary of logging activities on Leg 101 (Bahamas) is found in the draft minutes of the 18-19 March 1985 EXCOM meeting. Initial logging reports from Leg 102 suggest that logging was very successful with some logging experiments conducted through the drill pipe. Fornari commented that this may be the standard logging operation in the future and that this procedure greatly reduces the chances for losing logging tools.

On Leg 102, the Natural Gamma Tool worked very well and the logging crew was able to resolve the sediment/basalt contact and delineate smectite and basalt through the drillpipe.

The Logging Services Operator wants to ensure that a complete suite of standard logging tools be available for each ODP leg. LDGO has made an agreement with Schlumberger to take 2 of each tool in order to assure that standard logging activities will be conducted. Two of each tool onboard the drillship are being charged ODP at a rate that is \$300-400/day less than commercial costs.

Operations in FY 85-86 look favorable as the budget allows LDGO to provide standard and specialty logging services. However, there are some tools (that were unused on the first 2 legs) that are being removed at a substantial savings to the program. These are the temperature log, the Barnes pore fluid sampler and the tracer ejection tool. These specialty tools will be reinstated in the future as requests warrant them and after a means to provide funding for them has been found. The decision as to which tools are needed for logging is made by Downhole Measurements Panel with advice from co-chief scientists.

The daily cost of the standard logging operation is \$2150 and this includes the cyber unit and standard tools. Within the ODP-Schlumberger contract, there is enough flexibility to remove or replace tools (dependent on availability) as needed with no penalty costs to ODP.

For Leg 103 (Galicia Bank), two gamma spectroscopy tools (GST) as well as a newly trained logging technician will be available and starting with Leg 104 (Norwegian Sea), GST capabilities should be a routine part of logging activities.

At LDGO, the first edition of the logging manual has been published and distributed. Furthermore, shipboard as well as on shore facilities are completely operational. The only major shipboard problem encountered so far has been the inability to get the winch, which lowers the logging tools, to operate sufficient slowly at the necessary speed of 20 ft./min.

#### **HIGH TEMPERATURE TOOLS**

Groups at Los Alamos, Sandia Labs, U.S.G.S. and Lawrence Livermore Labs have expressed considerable interest in the development of high temperature tools. The most promising approach to keeping tools cool appears to be using a tool pusher to circulate cooling fluids. This concept would allow logging operations to be conducted using conventional equipment.

#### **TAM WIRELINE PACKER**

There are presently no funds in FY 84-85 for packer development. Agreements have been signed with AMOCO, but there has been no progress due to the lack of funding. AMOCO continues to develop the packer, however, ODP must streamline and miniaturize the unit to fit within the drill string.

There will be no new packer for Leg 110 (Barbados N.); however, the Lynes packer and the TAM drill string packer will be available. The budget for FY 86 will contain funds for the wireline packer development and the tool should be ready by 1987.

#### **HEAVE COMPENSATOR**

D. Yurger (WHOI) was contracted by ODP to conduct numerical analyses of the heave compensator and the results were sent to the engineers at Schlumberger. The compensator should be available prior to Leg 105 (Baffin Bay/Labrador Sea) with a more definite date known by the June PCOM.

The result of the analysis indicates that the Schlumberger design is quite functional but data did indicate problems with the controller system. Schlumberger has been made aware of the problems and sees no problems with Leg 105 delivery date.

**Discussion:**

Kastner (SIO): Why were the 3 logging tools that were removed from the program not used on Legs 101 and 102?

Fornari: On Leg 101, time constraints were such that some tools did not get used.

Honnorez (UM): It was suggested that there was no time to conduct logging due to complaints from the co-chiefs on Leg 101?

Fornari: This is not entirely correct. Standard logging activities need a maximum of 36 hours to a depth of 4000 m. The chief scientist should be aware of this time constraint and factor this into the cruise plans.

Schrader (OSU): Are these figures factored into the operational days calculation?

Garrison (ODP/TAMU): Time for logging is indeed scheduled into the calculation.

Kastner: The co-chief scientists should probably be informed on the amount of time it takes to conduct the specialty logging tools.

Brass (NSF): Perhaps, Wireline Services could produce a publication, similar to drilling time estimates, which explains estimates of logging times for standard and specialty tools.

Larson (URI): What is the status of the back-up tools?

Fornari: All the standard tools have a replacement tool with the exception of the multichannel sonic tool and the borehole televiewer. There are funds in the FY 86 budget to purchase a second for each of these tools.

Beiersdorf (FRG): Does this policy include spare cables?

Garrison: Plans now call for the inclusion of spare cables since cable was lost on Leg 101.

Von Herzen (WHOI): What is the status of software development on the ship?

Fornari: On the ship, we have unlimited use of the cyber unit program. However, there is no funding for the logging analysis software on the shipboard computer. The capability to analyze this data exists on shore

but not yet at sea. We have asked for funds in FY 86 to extend this capability to the RESOLUTION.

It was suggested that LDGO explore the possibility of converting the logging computer at Palisades to a sea-going unit in order to facilitate logging analysis at sea.

Fornari further reported that a summary of logging reports for Legs 101 and 102 are being prepared. Also, DSDP logs are being prepared for publication as a catalogue which will be available (along with ODP logs) on an annual or biannual basis.

Schrader (OSU): Will the logging results be part of the ODP site chapters?

Garrison (ODP/TAMU): It has been suggested that they appear in the "blue book" format with a summary of standard logging information and analyses of data and special sections but the format is still in a state of flux.

Larson (URI): The ODP publication scheme presently suggests that the summary of standard logging information would be in the first publication and the analyses and special sections would appear in the second publication.

Consensus: It is the consensus of the PCOM that the data from the standard logging tools be printed as a logging summary in the initial site chapter (Part A) and interpretations and analyses should appear in Part B of the volume. This consensus should be referred to the Information Handling Panel and the Downhole Measurements Panel.

Several PCOM members expressed concern over the consensus. It was emphasized that such a general statement cannot be made until the details of the format and the amount of data are known. Further it was asked if the release of the logging data falls within the guidelines as set by the ODP Sample Distribution Policy. Continued debate centered on whether this material should really be handled differently than core photos or core description data. The discussion ended with another consensus.

Consensus: The format question will reside with the IHP and DMP. The PCOM consensus is general advice.

The Wireline Services Report was concluded with the Operator asking advice of the PCOM and making the following closing remarks:

1. Is it necessary to carry an LDGO person on the bare rock drilling tests (Leg 106)?

2. There will be 2 LDGO technicians on the ship until Leg 105; beginning with leg 106 (MARK I) there will only be 1 LDGO technician.

3. LDGO expressed concern over whether the Spanish logging technician on Leg 103 is sufficiently informed about ODP logging capabilities and asked if the LDGO logging technician could be given staff representative status equal to the TAMU staff representative for this leg to assure that the logging program is fully completed.

#### 534 REPORTS FROM CO-CHIEFS ON LEGS 101 AND 102

##### LEG 101 SUMMARY

J. Austin, Co-chief Leg 101, reported that the objectives of the cruise were to test two hypotheses (graben vs. megaplatform) for the development of the Bahama Banks and to examine types of carbonate slopes in terms of their Paleogene and Neogene evolution.

Attempts at setting a re-entry cone in the Straits of Florida proved to be unsuccessful as surface currents with speeds of 1.5 to 3.5 knots caused vibration problems along the drill string. Of 4 sites proposed only one single bit hole was drilled. Site 626 was the first site and was probably the most difficult technical site. Drilling yielded 460 m of carbonate rubble and resulted in very low recovery rates in the unconsolidated sand (less than 5%). However, HPC work resulted in 80-90% recovery. At Site 627 (Blake Plateau), HPC and EXB systems worked with 97% HPC recovery and 60% XCB recovery. However, there was evidence of drilling artifacts from the XCB. On the first logging attempt with the neutron gamma ray tool, normal recovery of the tool failed. Attempts to recover the tool by fishing failed and the tool was left in the hole which was plugged with cement. Traces of hydrocarbon gas were also found. Site 628 (Little Bahama Bank) was continuously cored with the APC/XCB with 73% overall recovery rates and the hole was terminated in nannofossil ooze of L. Paleocene age. Site 629 (Little Bahama Bank) was an unsuccessful attempt to spud in at Site BAH-7. Recovered material consisted of sandy carbonate ooze, lime sand and rubble, and fragments of friable limestone, all of Quaternary age. At Site 630 (Little Bahama Bank), the APC/XCB had an 88% recovery rate and the HPC had a 99% recovery rate. Site 630 provided an excellent record of the off bank transport of fine-grained sediment from the carbonate platform during the last 10 million years. Drilling at Site 631 (Exuma Sound) yielded sediments with very high sedimentation rates, a high organic carbon content, pyritized layers and a large amount of subsurface diagenesis. The APC/XCB had a 65% recovery rate. At Site 632 (Exuma Sound), the APC/XCB system yielded 59% recovery rates. The section was drilled with a rotary bit; however, drilling was terminated because of minor occurrences of hydrocarbons. Recovery of the hole generally was 21%. Site 633 (Exuma Sound) was drilled with APC and XCB coring achieving 48.7% recovery. The section contained aragonite which was interpreted as bank-derived material. Site 634, NW Providence

Channel, was drilled with a rotary bit that resulted in 5.8% recovery. The site was abandoned because of poor hole conditions.

In summary, the ship operated quite well, although there are two major problems - a) the navigation system must be upgraded, and b) the core handling area should be protected before a serious accident occurs.

#### Discussion:

Von Herzen (WHOI): Could you summarize the problems of setting the re-entry cone in the Straits of Florida?

Austin: The major problem was that vibration problems along the drill string prevented setting of the cone. The vibration is the result of a streaming action that was produced when current at depth is going in an opposite direction at the surface.

Honnorez (UM): Has there been any improvement in the navigation system?

Garrison (ODP?TAMU): Nothing has been done yet as onboard equipment of that nature is the responsibility of SEDCO. TAMU, in the future, will purchase a GPS system.

Austin: I strongly advise the system be immediately upgraded as Leg 101 lost 6-12 hours waiting for satellite fixes.

PCOM expressed concern over the state of the satellite navigation system and recommended the problem be solved in the following consensus.

Consensus: The co-chief scientist for Leg 101 has identified a serious deficiency in the satellite navigation system. The Science Operator was advised to negotiate with SEDCO in order to correct the situation. The PCOM requests that this issue be reported on at the June PCOM.

#### LEG 102 SUMMARY

M. Salisbury, Leg 102 Co-chief, reported that Leg 102 had 2 objectives to re-enter Hole 418 A and to conduct borehole geophysical experiments. The hole was successfully re-entered and cleaned to a depth of 5863 m, then washed down to 6232 m. A logging tool that was presumed left in the hole during DSDP drilling was not found and appears to have been sheared off and lost outside the hole while it was being raised.

All logging tools worked well with the exception of the lateral log, which had calibration problems, and the packer, which developed

mechanical problems down hole. Also the large scale resistivity experiment was not done.

The 3-axis magnetometer worked very well and produced good data. The susceptibility tool and the LDGO 12-channel sonic tool performed well although the multichannel sonic tool worked better in the lower two-thirds of the section. The borehole seismometer performed well until it experienced an electrical short. The borehole televiewer was deployed but not used due to problems in the hole. Finally, temperature profiles were made in the sediment section and at depth. Water samples were also taken at depth.

The oblique seismic equipment worked very well and produced a spectacular data set for R. Stephen.

Salisbury recommended that the hole be cased within the sediment section to prevent slumping which made the handling of wireline activities delicate and that wireline re-entry not be attempted until the hole is cased.

During subsequent discussions, it was pointed out that 2-3 days were lost due to technical problems with the acoustic unit on the beacon and problems with the re-entry tools. One to two days were lost due to the inexperience of the drilling crew and a few hours were lost due to positioning problems. Further, it was indicated that problems with the speed control on the winch made it difficult to conduct logging of holes at slow speeds.

#### 535 PANEL REPORTS RELEVANT TO SHORT-TERM PLANNING (LEGS 104-114)

##### ATLANTIC REGIONAL PANEL

R. Buffler reported.

##### Leg 103 (Galicia)

ARP expressed concern that its September 1984 recommendation to move Site 4B upslope in order to sample oldest syn- and pre-rift sediments in a more abbreviated way was not followed. However, events at this meeting seem to have addressed this concern.

##### Leg 105 (Baffin Bay/Labrador Sea)

ARP was not aware of recent modifications concerning Baffin Bay/Labrador Sea drilling and asked that in the future all documents related to Atlantic drilling be copied to them.

ARP recommended that the co-chiefs be reminded of the importance of the Paleogene and Neogene paleoceanographic objectives in the region. ARP also recommended that if drilling at BB-3 is going well, the hole should be deepened to a total depth of 1600-1700 m. If Baffin Bay

cannot be drilled, then the co-chiefs are advised to set a cone at LA-5 and drill to basement (about 25 days). Then they should proceed to LA-2A (HPC and rotary drilling - 10 days). Finally, ARP advises drilling LA-9A (about 13.5 days). This is Plan C as suggested by Labrador Sea drilling proponents.

Leg 110 (Barbados North)

Co-chief recommendations: C. Moore and A. Mascle.

Leg 107 (Tyrrhenian Sea)

Co-chief recommendations: J. Mascle and R. Thunell. Alternates: M. Cita, K. Kastens, W. Ryan, Rehault.

ARP has yet to evaluate the drilling plan for the Tyrrhenian Sea because the Mediterranean WG has not yet met to finalize a drilling program. It was noted that a very successful multichannel seismic survey was recently conducted in the area and additional time is needed to process the data. The Chairman of the Med-WG was asked to schedule a meeting before June to supply the ARP Chairman with recommendations and priorities to be presented at the June PCOM and to give the Science Operator sufficient time to prepare the cruise.

After discussion, the PCOM strongly suggested that the data from the area be rapidly processed so that the Med-WG could meet and decide on drilling priorities prior to the June PCOM. L. Montadert (ARP Chairman) should at that time present a prioritized list of drilling objectives to the PCOM. The Committee noted that it is essential that the drilling schedule be presented at this time.

**CENTRAL AND EASTERN PACIFIC PANEL REPORT**

R. Buffler reported that CEPAC recommended that the Gulf of California drilling proposals be re-entered into scientific planning. The Panel reaffirmed its position that the Chile Triple Junction is conceptually important but more information and extensive marine geological and geophysical work is required before a drilling program can be developed. The Panel suggested that Chile Triple Junction should not be considered for drilling at this time.

CEPAC strongly recommended that two legs be devoted to EPR hydrothermal drilling at 13°N. The Panel continues to view DSDP 504B as exciting science but it remains a lesser objective in the short-term planning than the "new" ridge crest processes.

CEPAC reaffirms that one leg of Peru drilling and two legs of EPR hydrothermal work are of top priority. Further, the 504B and 504B area proposal of Mottl should be the back-up to EPR drilling. The Panel proposed the following:



Leg 111 EPR  
Leg 112 EPR           504B and 504B (Mottl) area (back-up)  
Leg 113 Peru

At the March 1985 meeting, CEPAC re-evaluated their short-term objectives as decided on at the Oxford, UK meeting in September 1984. This reconsideration has occurred in light of actions taken by the PCOM since September and the availability of new documentation concerning DSDP Hole 504B (Lithosphere Panel Proposal) and 504B area drilling (Mottl proposal).

**Discussion:**

Von Herzen (WHOI): I thought that two site surveys (U.S. and France) were scheduled for the Chile TJ area?

Brass (NSF): Reviews of the S. Cande proposal have not yet been received in our office and the French survey using the JEAN CHARCOT does not appear forthcoming.

Cadet (France): In view of the delay in a decision being reached on the Cande proposal and from logistical and scientific points of view, IFREMER has decided that it would be very difficult to conduct the site survey.

Larson (URI): Will the ODP position on the Chile Triple Junction (i.e. whether to keep it in the schedule or not) affect funding decisions of the Cande proposal?

Brass: The proposal will be judged based on its scientific merit. The decision of where it will be funded, whether it be in the ODP or Submarine G&G Offices of NSF, has not yet been decided. If the Chile Triple Junction is removed from the drilling schedule, the proposal will be referred to other appropriate areas of NSF.

**SEDIMENTS AND OCEAN HISTORY PANEL REPORT**

H. Schrader reported that SOHP recommends the development of a "sand core-catcher" to enhance the recovery of unconsolidated sand-dominated sequences, that continuous "strip" photography (black and white and color) be considered for all cores recovered, and that a palynologist be included as a part of routine shipboard staffing.

**Recommendations of co-chiefs:**

Leg 107 (Tyrrhenian Sea): R. Thunell and M. Cita  
                                          K. Kastens and J. Mascle  
Leg 108 (NW Africa): M. Sarnthein and W. Ruddiman  
Leg 109 (MARK II): no suggestions

Leg 110 (Barbados N.): C. Moore  
Leg 111 (EPR): no suggestions  
Leg 112 (Peru Margin): E. Suess and L. Kulm  
Leg 113 (Chile TJ): no suggestions  
Leg 114 (Weddell Sea): J. Kennett and D. Futterer

SOHP recommended that, for short-range planning, the PCOM be advised of the following:

Leg 103 (Galicia): Continuous coring at and below the Cenomanian-Turonian boundary (L. Cretaceous).

Leg 105 (Baffin Bay/Labrador Sea): Requested 70 days for BB-3B and LA5 drilling. SOHP emphasized that the Paleogene records from both sites are necessary.

Leg 108 (NW Africa): SOHP strongly endorses a comprehensive L. Paleogene-Quaternary package proposed by Sarnthein/Ruddiman.

Leg 114 (Weddell Sea): SOHP recommends the following site priority rankings:

1-W1, 2-W2, 3-W4, 4-W5, 5-W10, 6-W6, 7-W7, and 8-W8.

SOHP remarked that the above program, in its entirety, ranks above the proposed Subantarctic traverse. SOHP also suggested that the operations times suggested by SOP are very optimistic and when more realistic times are used the proposed sites probably cannot be accommodated in a 70-day leg. Sites W6-W8 would rank above W5 if it can be demonstrated that the objectives can be achieved (i.e. using grain size and magnetic fabric in order to monitor AABW production through time and to examine water masses at different depths). SOHP considers this an important objective and suggests that the method be demonstrated on piston or gravity core samples as part of the site survey requirement.

SOHP recommended that SA8, SA2, and SA3 be drilling items of a lower priority during the Subantarctic transect. However, if W6-W8 cannot be drilled in the Weddell Sea it may be possible to use the three sites as alternatives.

#### Discussion:

Larson (URI): How do Sites W6-W8 compare to the SOP recommendations?

Schrader: Sites W6-W8 were given equally high priority by SOP. However, their ranking by SOHP is contingent on the demonstration of scientific objectives.

Hayes (LDGO): Did SOHP prioritize the 11 first priority sites proposed for Leg 108 drilling?

Schrader: The present number of priority sites is a distillation from 25 first priority listings.

Moberly (HIG): It must be stressed that if the panels do not prioritize their listings, the PCOM will have to do so. Therefore, it is in the best interest of the panels to do so since they have the expertise.

Consensus: It is the consensus of PCOM that SOHP prioritize the 11 first priority sites proposed for NW Africa.

#### LITHOSPHERE PANEL REPORT

J. Honnorez reported that LITHP continues its strong support for 504B drilling and for a higher priority to be set for lithosphere drilling within ODP. LITHP also reiterates the need to have K. Becker appointed as a member. LITHP further continues its strong support for TAMU drill pipe TV acquisition but recognizes the complexity of the problem and urges TAMU to take advantage of existing expertise within the community.

#### MARK I Drilling

LITHP reported that final site selection for MARK I (Leg 106) is presently not practical as the SeaMARC I survey has been delayed until May. However, the majority of LITHP preferred using Legs 106 and 109 to get two holes started rather than concentrating on a single hole.

#### East Pacific Rise Drilling

Because of the intensive collection of data along the EPR during the summer of 1985 (4 cruises, 2 ALVIN, 1 dredging, 1 MCS), LITHP decided to defer final site selection until early 1986 following the processing of the MCS data. LITHP hoped that other activities, such as staffing and logistics could proceed on schedule and not be delayed by decisions on detailed site selection. The Panel did, however, request that the co-chiefs be appointed as soon as possible so that they can take part in planning activities.

#### Discussion:

Larson (URI): Are co-chief nominations dependent on LITHP drilling plans?

Honnorez: It was understood by proposal proponents that their selection as a co-chief is not dependent on whether their proposal is or is not incorporated into planning. All proponents are aware of this and all

would accept, if nominated, even if their proposals were not included in the drilling package.

#### Downhole Measurements

As reported earlier, several groups at Los Alamos, Sandia, U.S.G.S and Lawrence Livermore have expressed considerable interest in the development of high-temperature tools. LITHP has been made aware of a concept in which a tool pusher allows fluid to flow around the tools, sufficiently cooling them to a point where they can be used in hot holes. This appears to be extremely promising for using the borehole televiewer, sonic, caliper, 3-axis magnetometer and resistivity measurements using conventional equipment. However, it was suggested that large scale resistivity or OSE was probably not practical and that temperature and water sampling data would probably contain no useful information. Finally it was suggested that one of the major problems associated with EPR drilling lies in protecting the relatively temperature-sensitive logging cable.

LITHP also emphasized the importance of wireline re-entry to the progress of downhole experimentation.

#### Discussion:

Larson (URI): What is the schedule for the co-chief meeting for Leg 106?

Honnorez: A definite date has not been set but it could occur as early as June but probably in July/August.

Von Herzen: In regard to MARK drilling, is there a preference expressed in the two sites recommended?

Honnorez: Site preference depends on the results of the site survey. Both sites are on the MAR with one located 50 km south of the Kane FZ and the other closer to the Kane FZ to examine lithospheric thinning. The idea is to deploy two guidebases and drill until normal drilling conditions begin. We have chosen drilling in the Kane FZ as an alternative should this fail.

#### TECTONICS PANEL REPORT

R. Moberly reported that the TECP reconfirmed its priorities for drilling during Legs 111-113, as they were presented at the Austin PCOM. These are Peru drilling as its highest priority, Chile TJ as its second highest priority, and Barbados South as third highest priority.

TECP recommended the following persons for the co-chief scientist positions on Leg 110 (Barbados N.): J. Ladd, A. Mascle, C. Moore, and M. Marlow.

#### POLLUTION PREVENTION AND SAFETY PANEL REPORT

A. Mayer reported.

#### Drilling in Hot Hydrothermal Areas

The Panel discussed potential safety considerations from drilling in hydrothermal areas, such as steam flashes. It was agreed that specialist advice should be sought from experts in the area of hot rock drilling such as the Los Alamos Laboratories.

#### Safety Manual and Related Matters

The Safety Manual is being revised and will need Panel review prior to publication as a special issue of the JOIDES Journal. Early publication is recommended to assist the Science Operator in negotiations for drilling permissions with coastal authorities. It was recommended that guidelines for data to be provided for safety reviews should be included in the "Guidelines" special issue of the JOIDES Journal.

#### Leg 105 (Baffin Bay and Labrador Sea)

Baffin Bay sites - Approved by the Safety Panel (with conditions) at August 1984 meeting (3B-1, BB-3A, and BB-3B).

IA-5 - Site approved as proposed noting that there may be a need to move around the site in order to avoid boulders (to 1486 m).

IA-5A - Approved on condition of site relocation to the cross-point of lines 12 and 14 (to 650 m). Site was relocated because of poor record quality and lack of crossing line at the proposed location.

IA-9 - Approved with the recommendation that the site be located at the cross-point of lines 8N and 4E (to 850 m). Site was relocated for same reasons as IA-5A.

IA-2A - Approved as proposed to 903 m depth.

IA-2B - Approved as a re-entry site drilling to basement. Relocated 7 kms west to shot-point 6340 on line BGR 17 (to 1835 m).

IA-7 - Not approved because insufficient information was available at this time. If more information becomes available safety review can be obtained by mail.

IA-4 - Approved as proposed (to 600 m).

IA-4A - Approved to a depth of 700 m at shot-point 1186 on line 73 I 13-70164.

Leg 104 (Norwegian Sea)

VOR-2A - Approved to 1500 m and to be drilled first.

VOR-2B - Approved on the condition that there are no significant hydrocarbon shows at site 2A (to 1000 m).

VOR-1 - Approved as proposed to 1400 m on the same condition as 2B.

Note: The Panel expressed concern with the general location of sites 2A, 2B, and 1 at a structurally high position with a large potential drainage area. Drilling was approved on the condition that the down dip location (2A) be drilled first to confirm the absence of a drilling hazard.

VOR-3A - Approved to 1500 m.

VOR-3B - Approved to a depth of 1300 m with a recommendation to move the site N (seaward) to shot-point 1400 on line C/194. A further condition is that site 3A must be drilled before 3B. Site was relocated from the top of a structural high.

VOR-4 - Approved as proposed (shot-point 9600 on line NH-1).

VOR-5 - Approved for hydraulic piston coring to sediment refusal or 300 m, whichever comes first.

Note: Previous drilling in the area (DSDP Site 341) has demonstrated shallow biogenic gas and fluorescence suggestive of migrated hydrocarbon. For this reason, rotary drilling was not approved in this area.

Leg 106 (MARK)

MARK-1A - This is the bare rock site and was approved as proposed.

MARK-1B - Nodal basin drilling was approved as proposed.

Note: Final sites will be chosen following a SeamARC survey and using TV and imaging sonar.

536 SHORT-TERM PLANNING

LEG 104 (NORWEGIAN SEA)/LEG 105 (BAFFIN BAY/LABRADOR SEA)

Legs 104 and 105 were considered as a single package because decisions based on weather constraints on Leg 105 would impact planning for Leg 104.

At the Austin PCOM, Leg 104 was assigned 47 days (total) with 41 drilling days. PCOM at that time requested that the drillship depart Stavanger, Norway no later than 15 August 1985. After drill times were estimated, the Science Operator developed 2 sets of scenarios:

<u>SITE</u>	<u>ESTIMATED TIME (DAYS)</u>	
	<u>Plan A</u>	<u>Plan B</u>
VOR 2A	22	24 (re-entry)
VOR 2B	19	25 (re-entry)
VOR 4	5	<u>11</u>
VOR 5 (HPC only)	<u>1</u>	60
	47	

There are presently 47 days assigned to reach the scientific objectives (42 drilling + 5 transit days). The Science Operator found it difficult to achieve cruise objectives with the 47-day time frame and asked that 8 days be added to increase the total number of days to 55 days. These 8 days would come from what was taken from Leg 102 and by delaying the Stavanger departure date (Leg 105) from 15 August to 23 August.

#### Discussion:

Schrader (OSU): What becomes of the 8 days, if the most optimistic scenario (Plan A) works?

Garrison (ODP/TAMU): In that case we would still leave Stavanger on 23 August instead of 15 and we would not lose any ice-out time because the optimum days for ice out in Baffin Bay occur no earlier than the last week in August and no later than the second week in September.

Von Herzen (WHOI): At Austin, PCOM wanted the ship to leave Stavanger on the 15th in order to get to the Labrador Sea Site (LA 5) and be ready so that when the ice cleared out drilling operations could begin to optimize the time spent in Baffin Bay. This proposal plan may compromise these objectives.

Malpas (Canada): The deferral of the start date means that if the ship goes straight into Baffin Bay (BB-3) from Stavanger, you delay the LA-5 drilling. If you return to LA-9 that results in additional transit time. If that occurs that time puts you in early November which is the beginning of the storm period.

Larson (URI): The real compromise is that the whole Labrador Sea drilling plan is delayed to the point that it conflicts with the storm period.

Malpas: With the additional transit time you may completely lose IA-5. Is it possible that the ship could take on more fuel and steam at 12-12.5 knots into Labrador Sea from Norway in order to save time?

Garrison: This is very easily arranged and estimates show that time could be saved by going at 12 knots and would not really increase fuel costs by very much.

Von Herzen: Could the scientific objectives of Leg 104 be reviewed?

Larson: Voring Sites 2A and B will test the dipping reflector hypothesis and Sites 4 and 5 will address paleoenvironmental considerations and will sample Eocene and Quaternary environments. Voring 2A will sample shallow objectives and 2B will be drilled to basement to sample Reflector K.

Kastner (SIO): Since the objectives of VOR 2B call for drilling 450 m of sediment followed by 1 km of drilling into basement, would ARP consider drilling only 100 m or so into basement?

Austin (UT): At the last ARP meeting, the co-chiefs for Leg 104 suggested drilling VOR 2A then drilling Site 4 with no attempt at Vor 2B. Site 4 is very important in terms of paleoenvironmental objectives.

Larson: How would ARP react if there was an omission of some objectives of VOR 2A and 2B? Would there be serious alterations in the overall objectives?

Austin: ARP would probably place a major emphasis in VOR 2A, if adjustments were in order, then steam to Site 4.

It was the consensus of PCOM that the paleoenvironmental objectives remain as a backup to drilling the dipping reflectors. Presently the plan calls for drilling the dipping reflectors and resolving Reflector K. If these objectives cannot be reached then the ship should go to Site VOR 4. Honnerez moved; Schrader seconded.

**MOTION:** Leg 104 (Norwegian Sea) include as first priority objectives drilling at VOR 2A to resolve the nature of dipping reflectors leaving the co-chief scientists the freedom to decide when to stop drilling 2A and dedicate the remainder of the 40 working days to the leg to either resolve the dipping reflectors at VOR 2B or to go to Site 4 to pursue paleoenvironmental objectives.

Vote: for 11, against 0, abstain 1.

Larson: Does the proposed 70-day length of Leg 105 cause TAMU/SEDCO problems?



Garrison: The 70-day length causes problems in 4 areas: weather, morale, logistics and expenses (minor). If Leg 105 is 70 days (based on a Leg 104 at 47 days) then the ship arrives in St. John's approximately 2 November which is the storm season. Discussions with the co-chiefs of Leg 105 indicated that good information could be obtained by doing less at LA-5 which results in a leg that is less than 70 days.

During discussion, it was stated that the 8-day delay at the beginning of Leg 105 and the present arrival date in St. John's of late October/early November could combine to affect the attaining of the scientific objectives. Therefore, a 70-day length is needed for Leg 105. The Science Operator replied that if all goes perfectly then 70 days is reasonable but in reality, the weather, problems with the ship and the science objectives combine to make a 70-day leg not feasible.

The co-chiefs for leg 105 (Srivastava and Arthur) have suggested a compromise plan with 62.5 total days. This compromise, known as Plan E, involves a compromise between the objectives at LA-5 and LA-9. The result is a new LA-5A that is approximately 27 km NE of LA-5. The objectives of this site lie in the upper 650 m of the sequence with the penetration of reflector R2 (Oligocene) as the deepest objective. In summary, this plan would:

1. achieve nearly all the original objectives of Leg 105
2. eliminate the weather problem at LA-5 on the return trip
3. guarantee the recovery of a Paleogene high latitude sequence at least one site
4. allow sampling of LA-9 which is at a critical latitude for intercorrelation of N. Atlantic and Labrador Sea/Baffin Bay sequences and it is in a sensitive latitude for examining Paleogene-Quaternary paleoclimate fluctuations.

It was the general feeling of PCOM that Plan E appears to be a good compromise as all objectives are reached within the bounds of the weather problems. The PCOM further asked if a port call change from Stavanger to Reykjavik would aid the Science Operator in planning logistics. The Science Operator stated that change of ports would create additional problems in resupplying the ship and the time potentially saved does not outweigh the problems that would be created.

The following motion was moved by Malpas and seconded by Moberly.

**MOTION:** The Science Operator attempt to arrange that Leg 105 commence on a date such as not to compromise the original scientific objectives of the drilling plan (i.e. 25 days for drilling to basement at BB-3 and 25 days of drilling to basement at LA-5) and to finish in St. John's by the end of October. The port of departure for Leg 105 should be arranged to facilitate operational procedures.

Vote: for 8, against 1, abstain 3.

## LEG 106

Leg 106 is designed as an engineering test leg and prepares the groundwork for Leg 109 (MARK II) scientific operations. The backup for bare rock drilling is drilling in the Kane Fracture Zone at the ridge-transform intersection basin. The second priority is drilling along the fracture zone valley wall and to the north of the basin. It should also be noted that all holes are single bit objectives.

In January 1984, the PCOM set a limit of 30 days for bare rock drilling after which the ship was to proceed to other objectives in the fracture zone. Presently, Leg 106 is scheduled to last 40 operational days plus 17 transit days, for a total of 57 days.

J. Honnorez (co-chief) proposed an alternative plan to the January 1984 directive in which he suggested using 30 days to set two guidebases and to proceed with drilling and using the remaining 10 days to drill in the R-T nodal basin. The PCOM indicated that the plan was a reasonable alternative to the January 1984 decision and decided to readdress the issue at the June PCOM after the SeamARC site survey of the area is completed.

### INTERMEDIATE SHORT-TERM PLANNING

#### Leg 107 (Tyrrhenian Sea) Co-chief Recommendations

PCOM discussed the possible inclusion of an ESF representative (M. Cita) as a co-chief scientist. Discussion reflected a cautious reluctance concerning the inclusion of a non-ODP member to such a position; however, it was indicated that similar situations had occurred during the DSDP. The consensus was to offer J. Mascle and K. Kastens the co-chief positions with their alternates to be selected by the Science Operator from the list of panel nominees.

#### Leg 108 (NW Africa)

M. Sarnthein and W. Ruddiman were nominated as co-chiefs by the ARP and SOHP. PCOM advised the Science Operator to invite them as the co-chiefs, leaving sufficient time for ARP and SOHP to make further nominations in the event that they decline the invitation. PCOM also requested that a drilling plan with priorities be readied by the co-chiefs and which would be presented at the June PCOM.

#### Leg 109 (MARK II)

T. Juteau and W. Bryan are the co-chief scientists.

Planning for Leg 109 will begin in April 1986, however, it was indicated that a geophysicist should be added to the science staff.

Leg 110 (Barbados North)

Co-chief recommendations:

TECP: J. Ladd, A. Mascle, C. Moore, M. Marlow  
ARP: C. Moore, A. Mascle  
SOHP: C. Moore  
PCOM: W. Bryant

The consensus of PCOM was that C. Moore and A. Mascle be selected as co-chief scientists with J. Ladd recommended as an alternate. The other alternate positions will be filled by the Science Operator.

Discussion:

Larson (URI): Is the wireline packer available for Leg 110?

Fornari (LDGO): The packer, which was deferred due to budgetary constraints, will not be ready by Leg 110 because development and engineering will not result in a prototype until 1987. Even if funds were made available, the packer may not be ready by Leg 110.

Von Herzen (WHOI): How much money is needed to develop the packer?

Fornari: If \$200 K were available, the packer could be developed.

It was the view of PCOM that the delay in the development of the wireline packer is an example of how the lack of appropriate funds is impacting on the science of the program. PCOM suggested that LDGO investigate their present budget and use the funds available to develop the packer. The Wireline Operator's response was that the funds needed for development are not in the FY 85 budget. However, if advised, LDGO will refocus their program in FY 86 to develop the wireline packer. It was recommended that a list of tools (with priorities) be established which would facilitate a reference listing when budgetary problems occur. This was officially expressed in the following consensus.

Consensus: A subcommittee should be formed to prepare a PCOM priority listing of items from which short-term decisions on purchasing will be made. The committee will be composed of the PCOM Chairman (R. Larson), R. McDuff, and R. Von Herzen. The list will be compiled after reviewing previous lists and adjustments to the present list will be made as they are needed.

Fornari: The LDGO logging group will develop scenarios that will deal with the lack of funding as of 1 October 1985.

It was further recommended that the panels be notified concerning the lack of the new wireline packer on Leg 110 and suggested that they review the possible impact on their scientific objectives.

Leg 111 (EPR Drilling)

Co-chief scientists recommendations:

LITHP: Bougault/Macdonald (alts. Francheteau, Natland, Thompson, Langmuir, Batiza, Becker, Von Hergen)

CEPAC: no recommendations

It was the consensus of PCOM that Bougault and Macdonald be invited as co-chief scientists for Leg 111 and that there be no prioritization of the alternates. J-P. Cadet abstained from the PCOM consensus.

Leg 113 (Chile Triple Junction)

R. Buffler proposed the following motion which was properly seconded by Beiersdorf:

MOTION: Remove the Chile Triple Junction from the current schedule due to logistical and not scientific issues.

Vote: for 8, against 4, abstain 0.

After further discussion a second motion developed that was proposed by Kastner and seconded by Hayes.

MOTION: Defer the decision on the extra time issue until there is more information on Legs 107-114 (June PCOM).

Vote: for 10, against 0, abstain 2.

Consensus: PCOM agreed that a "watchdog" system be put in place to aid in planning whereby a PCOM member would be assigned to compile a 2-page summary with maps and act as a proponent for one of the legs up to and including the Weddell Sea. The JOIDES Office will compile the information which will be discussed at the next PCOM meeting.

Watchdogs and their assigned packages are as follows:

Tyrrhenian Sea - J-P. Cadet  
NW Africa - H. Schrader  
MARK I & II - J. Honnorez  
Barbados N. - R. Buffler  
EPR I & II - R. McDuff (will develop 1- & 2-leg scenarios)  
Peru Margin - M. Kastner and H. Schrader  
Weddell Sea - D. Hayes  
504B - JOIDES Office

("Watchdog" reports are needed by the JOIDES Office no later than 1 June.)

Consensus: There are a sufficient number of important scientific opportunities (palaeoenvironment) in the Chile Triple Junction area that would be lost if some attempt at drilling was not done. Therefore the area should be kept in competition for future science planning.

Schrader agreed to ask SOHP to consider the submission of a proposal to address palaeoenvironment objectives in the SE Pacific as part of a transit leg.

#### 537 PANEL REPORTS RELEVANT TO LONG-TERM PLANNING

##### WEDDELL SEA DRILLING

There was agreement among the PCOM that the length of the initial Weddell Sea leg be extended to the 70-day limit as suggested by the Science Operator. However, some members of PCOM objected to assigning to the leg the maximum number of total days at this time. It was suggested, on the other hand, that the assigning of the 70 days would be a minimum commitment for which to continue planning.

The PCOM requested that drilling plans be prepared for presentation at the June PCOM.

##### SOUTHERN OCEANS PANEL REPORT

As the Panel would not meet until 22 April, R. Larson distributed copies of a letter from the SOP Chairman, J. Kennett. The letter stated the following:

"The Southern Oceans Regional Drilling Panel strongly recommends to the Planning Committee that the proposed Subantarctic Leg in the South Atlantic remain as part of the future drilling plans. The scientific objectives are considered to be of high priority, although of slightly

lower priority than most of the Weddell Sea objectives. The data from the Falkland Plateau and the anticipated results of Weddell Sea Drilling provide a framework for evaluation and interpretation of Subantarctic sites, and can reasonably be expected to yield as coherent a set of results as that from any other comparable region.

Two legs will also allow full utilization of the brief austral summer weather-window (January-April) while the drilling vessel is making one of its rare visits to the Southern Hemisphere. Given the severe logistic constraints and the large number of scientific objectives, a second Southern Ocean leg in the South Atlantic will be of major importance.

Like the Weddell Sea, very high priority is given to the completion of drilling objectives on the Kerguelen Plateau-east Antarctic margin, including the extension of the north-south transect between Kerguelen Island and Broken Ridge. Our mail vote resulted in the highest priority for the other objectives being given to the transect between Kerguelen Island and Broken Ridge. The next highest ranking was given to the Adelie Land Coast drilling, although realistically it does not compete as an Indian Ocean objective because of its location far to the east. The next priority in the ranking was the Crozet Plateau-Fracture Zone drilling, followed closely by Agulhas Plateau and lastly by the central Antarctic-Australian mid-ocean ridge (cold-spot trace).

Given the remoteness of the Kerguelen-East Antarctic margin area coupled with the large number of drilling objectives, our panel strongly requests the Planning Committee investigate the possibility of crew-change-resupply at Kerguelen Island using a second vessel."

#### Discussion:

Garrison (ODP/TAMU): SEDCO reports that two 51 1/2-day legs, with a 3-day port call in between (at Kerguelen), are needed in order to conduct the crew change-resupply operation. This assumes the ship would leave from Durban, go to the Kerguelen area, do 40 days of operations, and return to Kerguelen Island. This also assumes that another ship would bring out a new crew and 25 tons of supplies with no new drill pipe. The RESOLUTION would then do another 40 operational days at a different site and then transit 8 days to Perth. The supply ship would need to bring out 110-120 new people to make the crew change. This plan is possible if a supply ship is available.

Cadet (France): The MARION DUFRESNE is available to fulfill the role of the supply vessel. The MARION DUFRESNE is capable of transporting approximately 90 passengers, 25 tons of cargo and approximately 250 K gallons of fuel. The cost would be about \$17 K/day from Reunion Island to Kerguelen back to Reunion Island.

During discussion other ship possibilities were mentioned such as the use of Australian supply ships and former whaling vessels based in

South Africa. However, it was decided that the DUFRESNE was the best possibility. The PCOM asked if there would be problems scheduling the DUFRESNE if a decision was delayed until June. TAMU agreed to contact ODP-France to discuss scheduling and the French PCOM representative would contact the group in charge of the DUFRESNE.

#### INDIAN OCEAN PANEL REPORT

The PCOM received the following revised list of drilling objectives with scores of the voting and estimated drilling legs.

	<u>Score</u>	<u>Legs</u>
1. Kerguelen-Gaussberg, first leg	9.50	1
2. 90° East Ridge	8.25	1
3. Neogene Package	8.00	1
4. Red Sea	7.63	1
5. SEIR	7.38	< 1/2
6. Broken Ridge	6.88	1/2
7. Kerguelen, second leg	6.75	< 1
8. Argo AP & Exmouth Pl.	6.75	1
9. Cent. Ind. Basin & Distal Bengal F.	6.25	1
10. Davie Ridge	5.00	< 1/2
11. SWIR FZ	4.88	< 1/2-1
12. Chagos-Laccadive-Mascarene	4.63	< 1/2
13. Makran	4.50	1/2-1
14. Agulhas Pl., 1st site	3.50	< 1/2
15. Rodriguez TJ	2.88	1/2-1
16. Fossil Ridges	2.25	< 1/2-1
17. Cold Spot	1.75	1/2 ?
18. Agulhas Pl., 2nd site	1.25	< 1/2
19. W. So. Australia	1.13	1
20. N. Somali Basin	0.63	1+

The IOP indicated that these objectives and their arrangement into a schedule are constrained by severe weather limitations, especially for the Kerguelen-Gaussberg (1 and 7) and northern Arabian Sea objectives (3 and 13). The IOP discussed several possible schedules which are presented in the full minutes of the 20-22 March 1985 meeting.

#### Red Sea Working Group Report

Three themes that are unique to the Red Sea area emerged from the March 11-13, 1985 meeting which was held at LDGO. These are:

1. Evolution of the lithosphere as expressed by the nature of the igneous rocks produced through the transition from continental to oceanic rifting.
2. Hydrothermal activity and metallogenesis in a young rifted margin.
3. Sedimentary history of a young rifted margin.

They then proposed various strategies for addressing these themes and an ideal drilling program involving 11 sites was developed:

1. Axial Trough
2. Atlantis II Deep (natural laboratory)
- 2a. Thetis Deep (alternative to AII deep)
3. Nereus Deep (possible natural laboratory)
4. Kebrit Deep
5. Mabahass Deep
6. Shaban Deep
7. Bannock Deep
8. Zabargad Ridge
9. Coral Seapeak
10. No. Red Sea Site
11. Main Trough (Sudanese Delta)

The Red Sea Working Group concluded that one leg would be needed to accomplish the primary objectives of the Red Sea.

#### WESTERN PACIFIC PANEL REPORT

R. Moberly reported that WPAC presented the following preliminary list of priorities for drilling in the western Pacific region. A firmer ranking will result from the next WPAC meeting in August.

<u>Region</u>	<u>Rank</u>
So. China Sea	1
Nankai Trough	2
Banda Sea	3
Okinawa Trough	4
Sulu Sea	5
Japan Sea	6
Bonin Trench (Toe)	7
Sumba Region, Trench Toe	8
Bonin Trench	8
Coriolis Trough	10
Bonin Forearc	11
D'Entrecasteau Ridge	12
Lau Basin	13
South of Taiwan	14
Palawan Toe	14
Ozborn Smt/Louisville Ridge	16

Site surveys needed to better define the high priority regions include: Banda Sea, seismic reflection and swath mapping; Bonins, MCS lines in forearc basin, sampling of serpentine diapirs; and Sumba forearc and South of Taiwan, MCS.



WPAC supports workshops on arc systems (Hawkins) planned for June 1985 in La Jolla and Western Pacific drilling planned for Singapore (Curcum-Pacific Min. Resources conference) in 1986.

#### SEDIMENTS AND OCEAN HISTORY PANEL REPORT

H. Schrader reported that SOHP consulted the COGS-2 document in determining Indian Ocean and Western Pacific Drilling. Rankings are as follows:

##### Indian Ocean Drilling

1. Amery (Antarctic) margin-Southern Kerguelen transect
2. Oman-Owen Ridge-Somali margin-Indus Cone, Neogene package
3. Somali Basin deep hole (Mesozoic Tethys), one deep hole
4. North Kerguelen-Southeast Indian Ridge transect polar front
5. Exmouth Plateau-Argo Abyssal Plain transect
6. Chagos-Laccadive Ridge (or 90° East Ridge)

##### Western Pacific

In addition to areas of interest summarized at the last meeting, further discussion (prioritization will await formal liaison with WPAC and CEPAC) revealed strong interests in:

1. Great Barrier Reef program
2. Queensland Plateau-Ontong Java Plateau
3. Scott Plateau and environs
4. Pore water chemistry-diagenesis in accretionary (generic) prisms
5. Volcanic episodicity, eolian transport, tephrochronology (generic)

##### Riser Targets

1. With stated limitations (1800 water depth; 1992 start)
  - a. penetration of evaporite sequences (Med., Red Sea, S. Atl.)
  - b. penetration of gas hydrates (Sea of Japan, Sea of Okhotsk, Cariaco Trench, Chilean Margin).
  - c. Continental slopes (Niger Delta, NW Africa Mesozoic)
2. SOHP argued strongly that longer riser (3 km) would significantly enhance capabilities and the number of attractive targets.

#### LITHOSPHERE PANEL REPORT

J. Honnorez reported for LITHP.

## Indian Ocean

Priorities are:

1. Red Sea - L1 (Working Group)
2. Aus-Ant Discordance - L6 (Langmuir)
3. SW Indian Ridge Fracture Zone - L4 (Dick and Natland)
4. Carlsberg Ridge - L2 (Natland)

If a good hot spot trace program (e.g. 90° East Ridge) is formulated we would place that second only to the Red Sea. If Brocher can show reasonable possibility of solving technical problems then Crozet Basin (L7) would be ranked below Dick and Natland but above Natland.

**IMPORTANT:** These are LITHP's priorities only within the Indian Ocean. We consider back-arc spreading center drilling in the Western Pacific to be a significantly higher priority than all of the above projects.

## Western Pacific

Major progress planned at next meeting when results of Hawkins' workshop are available.

## **TECTONICS PANEL REPORT**

R. Moberly reported on TECP recommendations for Indian Ocean Drilling. A brief justification is provided for the top four choices. The scores, as well as the range of scores and proposal proponents, are also presented.

1. Makran accretionary prism and slope basins (Leggett proposal) 8.75; 6-10. Excellent opportunity to address rates of deformation and uplift in clastic-dominated prism, and transition from slope-basin sediments to basement.
2. Intraplate deformation and fluid flow (Weissel et al.) 8.43; 7-10. Innovative plan to determine timing and rates of deformation of long wavelength flexures in an intraplate setting, and to address how fluid flow influences high heat flow.
3. (tie) Southwest Indian Ocean fracture zone (Dick and Natland) 7.0; 2-9. Opportunity to document vertical sequence of rock types and fabrics, in a setting characterized by slow relative plate motions, for comparisons with deformed parts of ophiolites on land.
4. (tie) Bengal-Indus fans (Curry et al.) 7.0; 3-10. Addresses a fundamental on-land tectonic problem, the uplift history of a collisional orogen, the Himalayas. Distal fan facies may reflect timing and rate of uplift as well as eustatic sea-level changes.

Targets 5-10 were ranked as follows. Comments in the minutes explain that drilling on Kerguelen (7) and in the Red Sea (10) would have ranked higher if proposals at hand had included specific tectonic objectives:

5.	90° East Ridge, Broken Ridge hot spot targets	6.50
6.	Broken Ridge rifting and uplift (Weissel et al.)	6.43
7.	(tie) Chagos-Laccadive ridges (Duncan; Heirtzler)	6.25
7.	(tie) N. Somali Basin (old Tethyan crust)	6.25
7.	(tie) Kerguelen	6.25
10.	Red Sea (proposal of RS-WG presented by Cochran)	6.20

### Riser Drilling

TECP suggested that the earlier stages of the rifting process could possibly be addressed during riser drilling.

### Discussion:

After the panel presentations discussion centered on a philosophical difference between LITHP and WPAC concerning the plan for focused drilling in a back-arc region. WPAC presently does not believe that the controls are sufficiently understood to allow for detailed planning. It was decided to defer further debate on the issue until after a 25-27 June workshop on the matter has convened and reported on in August.

### 538 LONG-TERM PLANNING

The PCOM Chairman suggested that since there would not be another meeting before June, it is important for PCOM members to study the complete minutes of the Indian Ocean Panel, the Lithosphere Panel, and the Tectonics Panel in order that detailed planning for the Indian Ocean could be conducted at the next PCOM. The SOHP and SOP chairmen are to be consulted for more detailed information on their panel's high priority objectives and this information will be sent in the June PCOM meeting package. A summary of each panel's objectives for the Indian Ocean is presented in Appendix A.

R. Moberly and G. Brass expressed disappointment that detailed planning of the Indian Ocean, which was the purpose of this meeting as decided in Austin, did not occur at this meeting.

R. Moberly: In view of the general responsibility of planning drilling three years in advance, one of the two main purposes of this meeting was to plan general drilling in the Indian Ocean. I ask that the minutes reflect my disappointment that we were unable to do so.

The PCOM asked the SOP for more specific details concerning Subantarctic and Weddell Sea drilling.

Each PCOM member was asked to bring a map with their own favorite drilling plan for the Indian Ocean.

### 539 DATE OF NEXT MEETING AND MEETINGS SCHEDULE

Future PCOM meetings are:

25-27 June 1985 - Hannover, FRG

8-10 October 1985 - Narragansett, RI

4-7 February 1986 - La Jolla, CA (with panel chairmen)

PCOM members were advised to plan for three full days at the PCOM meeting in Hannover.

### 539 OTHER BUSINESS

#### PANEL MEMBERSHIP

At the EXCOM Narragansett meeting the PCOM Chairman was advised to fill panel vacancies at the April PCOM meeting if the membership issue was not resolved. However, due to the potential for membership by the ESF/Australia consortium and the UK, the EXCOM at Miami advised the PCOM Chairman not to fill those slots within the panels until the June PCOM.

The PCOM Chairman said that it was necessary to fill the chairmanship slots of two JOIDES panels - TECP which was chaired by J. Leggett (UK) and SSP which was chaired by J. Jones (UK).

The following motion was moved by Beiersdorf and seconded by Malpas.

MOTION: The PCOM approves the appointments of J. Peirce as chairman of the Site Survey Panel and D. Cowan as chairman of the Tectonics Panel.

Vote: for 12, against 0, abstain 0.

The PCOM Chairman requested nominations for the chairmanship of TEDCOM as soon as possible.

#### SCIENCE OPERATOR LIAISON WITH JOIDES PANELS

b) Other data relevant to the proposal which may be obtained from publicly accessible data bases in the U.S. and elsewhere.

c) Data which will eventually be available for public access but has release clauses imposed by the data holder (proponent). These data are not normally considered as part of the evaluation of the scientific merit of the related proposal.

Section D should be changed from 24 months to 36 months to be consistent with the flow diagrams shown in Figure 1.

#### TERMS OF REFERENCE

The JOIDES Office has also revised the Terms of Reference. The revision was presented to PCOM for approval.

The following motion was moved by Moberly and seconded by Buffler.

**MOTION:** The words "task group" be removed from Section 1, and Section 3.2 and that Section 6 be deleted. Section 9 should replace Section 6 and within that section, the words "task groups" be removed and replaced with "working groups."

Vote: for 12, against 0, abstain 0.

**Consensus:** The concept of working groups should be revised to the original wording as written at Morpeth PCOM plan and the Swindon EXCOM acceptance.

The PCOM expressed its sincerest thanks to R. Moberly for his service to the Committee as his period of membership has expired. D. Hussong (HIG) will replace Moberly.

The PCOM thanked H. Stewart for his hospitality in hosting the PCOM meeting in Norfolk and the meeting was adjourned.

The PCOM Chairman has approved the attendance of ODP/TAMU Staff Scientists as panel liaisons. In agreeing to this liaison, the PCOM Chairman has advised the staff scientists in the following terms:

Attendance at panel meetings is to facilitate information transfer between ODP/TAMU and the JOIDES panels. Staff scientists are to provide technical and logistical information about the ship, the instruments and the program so that the panel members have a better idea of what's possible, impossible, and equally importantly, marginal. In return, attendance at these meetings gives staff scientists some insight into possible upcoming scientific programs, plans and policies. Staff scientists are to participate in this information transfer but not to participate actively in the formulation of the science. Staff scientists must not mistake scientific programs, plans and policies made by the panels as the final words on these subjects. All of this information is funnelled up to the Planning Committee which is the final arbiter of the scientific program.

<u>Staff Scientist</u>	<u>Speciality</u>	<u>Liaison For</u>
Dr. Andrew Adamson	Igneous Petrology	LITHP
Dr. Christian Auroux	Geodynamics	SSP
Dr. Jack Baldauf	Diatom Micropaleontology	ARP
Dr. Brad Clement	Paleomagnetism	IOP
Dr. Audrey Meyer	Sedimentology	TECP & WPAC
Dr. Amanda Palmer	Radiolarian Micropaleontology	SOHP
Dr. Elliott Taylor	Physical Properties	CEPAC & DMP

Further liaisons will be announced once staffing is completed.

#### REVISED GUIDELINES FOR PROPOSAL SUBMISSION

Guidelines for the submission of proposals/ideas were revised by the JOIDES Office and were presented to the PCOM for approval.

The guidelines were reviewed by the PCOM and the following changes were agreed:

Reword section C.2 to read:

Proponents are asked to identify available data in three categories:

- a) The primary data necessary and sufficient to support the scientific proposal. The ODP Databank is authorized to duplicate and distribute these data as needed for ODP evaluation and planning procedure.

INDIAN OCEAN PROPOSALS - PRESENT RANKING BY PANELS

<u>TECP, Mar. 18-20, 1985</u>	<u>Score</u>	<u>IOP, Mar. 20-22, 1985</u>	<u>Score</u>
Makran	8.75	Kerguelen, One Leg	9.50
Intraplate Deformation	8.43	90° East Ridge Hot Spot and Paleoceanography	8.25
SW Indian Ridge Petrology } Bengal-Indus Fans }	7.00	Neogene Package	8.00
90° East Ridge-Broken Ridge Hot Spot	6.50	Red Sea	7.63
Broken Ridge, Uplift and Rifting	6.43	SE Indian Ridge Transect	7.38
Chagos-Laccadive Hot Spot } N. Somali Basin Deep Hole }	6.25	Broken Ridge, Uplift & Rift	6.88
Kerguelen Basement		Kerguelen, Second Leg } Exmouth-Argo Transect }	6.75
Red Sea	6.20	Intraplate Deformation	6.25
S. Australia Quiet Zone	6.00	Davie Ridge	5.00
Timor Collision	5.62	SW Indian Ridge Petrology	4.88
S. Australia, Old Ocean Crust	5.50	Chagos-Laccadive Hot Spot and Paleoceanography	4.63
		Makran	4.50

SOHP, Feb. 21-23, 1985

Kerguelen-Amery Transect  
Neogene Package  
N. Somali Basin Deep Hole  
Kerguelen-SE Indian Ridge Transect  
Exmouth-Argo Transect  
Chagos-Laccadive Paleoceanography  
Subantarctic Transect

LITHP, Feb. 26-27, 1985

Red Sea  
(Hot Spot Trace)\*  
Cold Spot  
SW Indian Ridge Petrology  
(Crozet Basin)\*\*  
Carlsberg Ridge

\*If a good program is formulated.

\*\*If technical problems are solved.

SOP, Apr. 9, 1985 letter from Kennett

Kerguelen-Amery Transect  
Subantarctic Transect  
Kerguelen-SE Indian Ridge Transect  
Adelie Land Coast  
SW Indian Ridge Petrology  
Agulhas Plateau  
Cold Spot

# JOIDES



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May 1, 1985

TO: JOIDES Planning Committee Meeting Attendees

FROM: Darryl Keith, JOIDES Office Science Coordinator

*DJK*

SUBJECT: Draft Minutes of the 10-12 April 1985 Planning  
Committee Meeting, Norfolk, Virginia

Enclosed please find your copy of the draft minutes of the Norfolk PCOM meeting. Please review them for their accuracy and completeness, making corrections where necessary. Corrected versions of the draft minutes should be mailed, telephoned, or telexed to the JOIDES Office by 17 May 1985. The JOIDES Office telex number is 9103802848, answerback JOIDES URI UD. Thank you for your time and cooperation.

RECEIVED MAY 6 1985



JOINT OCEANOGRAPHIC INSTITUTIONS  
DEEP EARTH SAMPLING



JOIDES PLANNING COMMITTEE MEETING  
 CENTER FOR MARINE STUDIES  
 OLD DOMINION UNIVERSITY  
 NORFOLK, VIRGINIA  
 10-12 APRIL 1985

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JOIDES PLANNING COMMITTEE MEETING  
CENTER FOR MARINE STUDIES  
OLD DOMINION UNIVERSITY  
NORFOLK, VIRGINIA  
10-12 APRIL 1985

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6	JOI Inc./JOIDES Office	Inclusion of ODP Databank <u>Ad Hoc</u> Review Panel in Hannover agenda
6	JOI Inc./JOIDES Office	Distribution of the FY 86 program plan to PCOM (Hannover)
7	JOI Inc.	Development of a list of items to which ODP is contractually bound by leasing or other arrangements
12	Science Operator	Development and distribution of public relations material
12	JOIDES Office	Publishing of leg prospectuses, drill site summaries, and results in detail in the JOIDES Journal
14	Wireline Logging Ser- vices	Production of a publication with logging time estimates for standard and specialty tools
15	Wireline Logging Ser- vices	Investigation of the possibility of converting the onshore logging com- puter to a sea-going unit
15	JOIDES Office	Refer publication of logging results to IHP and DMP
17	Science Operator	Correction of deficiencies in the satellite navigation system on the D/V JOIDES RESOLUTION
19	ARP Chairman	Development and presentation of a prioritized list of drilling objec- tives for the Tyrrhenian Sea from MED-WG

22	SOHP Chairman	Prioritization of the 11 first priority sites for NW Africa
24	JOIDES Office	Inclusion of the guidelines for data presentation for safety review in the Special Issue of the JOIDES Journal
27/28	Science Operator	Review arrangements for Legs 104 and 105
29/30	Science Operator	Invite co-chief scientists Legs 103-111
30	PCOM Subcommittee (Larson, McDuff, and Von Herzen)	Development of reference list of prioritized downhole tools
31	PCOM Chairman	Notification of panels concerning the lack of a wireline packer for Leg 110
31	JOIDES Office	Compilation of information for PCOM "watchdogs"
32	PCOM Members/"Watchdogs"	Submit reports to JOIDES Office by 1 June 1985
34	Science Operator	Negotiations with ODP-France for use of MARION DUFRESNE
34	J-P. Cadet	Negotiations with operators of MARION DUFRESNE
38	PCOM Chairman	Ask the SOHP and SOP Chairmen for more detailed information for Indian Ocean drilling priorities
38	PCOM Chairman	Ask the SOP Chairman for more specific details concerning Subantarctic and Weddell Sea drilling
39	PCOM Members	Bring map of favorite Indian Ocean draft drilling plan to Hannover meeting
39	PCOM Members	Invite J. Peirce and D. Cowan to serve as SSP and TECP Chairmen respectively.

JOIDES OFFICE  
GRADUATE SCHOOL OF OCEANOGRAPHY  
UNIVERSITY OF RHODE ISLAND  
NARRAGANSETT, RHODE ISLAND

DRAFT MINUTES

10-12 APRIL 1985  
CENTER FOR MARINE STUDIES  
OLD DOMINION UNIVERSITY  
NORFOLK, VIRGINIA

PCOM Members:

R. Larson, Chairman (University of Rhode Island)  
H. Beiersdorf (Federal Republic of Germany)  
R. Buffler (University of Texas)  
J-P. Cadet (France)  
S. Gartner (Texas A&M University)  
D. Hayes (Lamont-Doherty Geological Observatory)  
J. Honnorez (University of Miami)  
M. Kastner (Scripps Institution of Oceanography)  
J. Malpas (Canada)  
R. McDuff (University of Washington)  
R. Moberly (University of Hawaii)  
H. Schrader (Oregon State University)  
R. Von Herzen (Woods Hole Oceanographic Institution)

Observer:

A. Taira (Japan)

Liaisons:

G. Brass (National Science Foundation)  
D. Fornari (LDGO, Wireline Logging Services)  
L. Garrison (ODP/TAMU Science Operator)

Guests:

J. Austin (Leg 101 Co-chief)  
M. Salisbury (Leg 102 Co-chief)

Others:

J. Clotworthy (Joint Oceanographic Institutions Inc.)  
D. Keith (JOIDES Office)  
A. Mayer (JOIDES Office)  
D. Rucker (Joint Oceanographic Institutions Inc.)

527 INTRODUCTION AND OPENING REMARKS

R. Larson, Planning Committee Chairman, convened the 10-12 April 1985 meeting held at the Center for Marine Studies at Old Dominion University. Harris Stewart, Director, welcomed meeting participants to the Norfolk, VA area.

Dr. A. Taira was welcomed as the Japanese representative to the Planning Committee. Dr. Taira presently has observer status until October 1985, when Japan has agreed to sign a full MOU and he replaces K. Kobayashi who is now the Japanese representative to the JOIDES Executive Committee.

The opening remarks were closed by asking meeting attendees to agree to the use of a tape recorder to aid in recording the meeting procedures.

**ADOPTION OF MEETING AGENDA**

H. Schrader moved (seconded by Moberly) that the Committee adopt the agenda.

Vote: for 12, against 0, abstain 0.

528 MINUTES OF THE AUSTIN PLANNING COMMITTEE MEETING

H. Schrader requested that his affiliation be corrected from the University of Oregon to Oregon State University.

R. Moberly moved that the minutes be amended to include the following listing of major themes by oceans to be added to LITHP report:

1. Atlantic: bare rock drilling at MARK
2. Eastern Pacific: 504B drilling and EPR hydrothermal drilling of lesser interest than 1 or 2
3. Indian: single hot spot trace
4. Western Pacific: young back-arc spreading

Vote: for 6, against 2, abstain 4.  
(amendment carried)

The Committee suggested that a copy of these amendments be sent to M. Purdy, LITHP Chairman.

It was moved by Kastner, and seconded by Malpas, to adopt the minutes with the requested amendments.

Vote: for 12, against 0, abstain 0.

The PCOM Chairman reported that action items resulting from the Austin PCOM meeting had been completed by the JOIDES Office.

#### 529 JOIDES EXECUTIVE COMMITTEE REPORT

R. Larson, PCOM liaison, reported that at the EXCOM meeting on 18-19 March 1985 in Miami, Florida, the United Kingdom, European Science Foundation and Australia were unable at this time, to join ODP as full or consortium members. However, the possibility of an ESF/Australian consortium may occur in the near future and was strongly encouraged by EXCOM. Further, a resolution was passed by the EXCOM that states that the entry of the United Kingdom to the ODP other than as a full member was not acceptable or in the best interest of ODP or to the other full members. The resolution further urged the UK to become a full member by October 1985.

The EXCOM recommended that the ESF, Australia and the UK continue to be invited to EXCOM as personal guests of the EXCOM Chairman as long as a possibility of membership exists. EXCOM further recommended that all Australian, ESF and UK names be deleted from the JOIDES PCOM and panels. This proviso is dated as of the sailing date of the RESOLUTION. EXCOM did approve the attendance of guests to the panel meetings but only when it was absolutely necessary for scientific planning. Representation on panels was limited to those representatives of member nations except where a scientific specialty was needed. A problem potentially exists with the Mediterranean WG because 4 panel members are from the ESF or the UK; the expulsion of these people could lead to a dismembering of the Working Group.

The EXCOM Chairman read a telex from the President of ESF in which he stated that ESF is prepared to enter ODP as a full member as soon as negotiations with Australia are completed.

Regarding the staffing of scientists from developing countries, the EXCOM agrees with the position taken by the PCOM. In summary, the PCOM stated that wherever possible, scientists from developing countries should be invited on a personal level and that relevant international scientific organizations should be contacted (formally and informally). Panels were also asked to explore opportunities for scientific collaboration with non-ODP members.

#### Discussion:

Schrader (OSU): What is the present listing of ESF members?

Larson: To date, the ESF consists of 9 countries: Norway, Sweden, Italy, Greece, Belgium, Denmark, Switzerland, the Netherlands and Spain.

Honnorez (UM): What is the status of O. Eldholm as he is a member of the Atlantic Regional Panel, a co-chief scientist and at the same time an ESF representative?

Larson: Eldholm no longer represents the ESF on the ARP. He has been designated as a co-chief scientist on Leg 104 on an ad hominem basis.

Hayes (LDGO): An alternative that was discussed by the EXCOM was that Eldholm participate on Leg 104 as a member of the scientific crew but not in the capacity of co-chief scientist.

It was noted by members of the PCOM that the UK and ESF panel members who were eliminated previously could be reappointed on the basis of their scientific specialities. (More discussion of panel memberships will be found under that appropriate section in the minutes.)

### 530 NATIONAL SCIENCE FOUNDATION REPORT

G. Brass (NSF) reported that the NSF budget passed its appropriations hearings in the Science and Technology Committee of the U.S. House of Representatives with approximately a 4% real growth. The bill has next to be authorized by the House and Senate.

The reorganization of the Oceanography Section of NSF has been completed with G. Brass becoming the Program Director of the ODP. The Ocean Science Research Section (OSRS) has been returned to the 4 traditional programs (i.e. chemical, biological, geological, physical) of the Foundation. ODP has been moved to a new section of Oceanographic Facilities Support Section (OFSS) with S. Toye as the Section Head. The vacancy created by the promotion of G. Brass to ODP Program Director will be filled by R. Buffler, the PCOM representative from the University of Texas at Austin, as from September 1985.

#### MEMBERSHIP

##### Canada

Canada will sign a Memorandum of Understanding with NSF for full membership in the Ocean Drilling Program on 15 April 1985. With this signing, the ODP now has 3 full members.

##### Japan

Japan will join ODP as a full member on or before 1 October 1985. At that time, the ODP will consist of 4 full members.



ESF/UK

Draft MOUs are under consideration with the ESF and UK that would continue their participation as candidate members until they make a commitment of full membership to ODP (i.e. Japanese solution). It is expected that if these countries join under the "Japanese solution," a commitment to full membership will occur on or before the beginning of next fiscal year. It is not the intention of NSF to allow them to extend their participation in ODP beyond 30 September 1985.

**Discussion:**

Von Herzen (WHOI): How has the lack of a UK membership affected the financial situation for this year and will things look better in the future?

Brass: Not having the UK (or a 5th member) in ODP has resulted in a \$2.5M deficit in the budget. So the Program needs to find one more member. With the number of membership opportunities available, we are optimistic that another member will be found to fulfill the plan of 5 international partners.

Von Herzen: Has NSF prepared a document which addresses the lack of a fifth member and its impact on the cost overrun for the construction of the laboratory stack on the RESOLUTION and its effect on the U.S. science program?

Brass: A summary of the cost overrun matter can be found in the minutes of the EXCOM meeting in Narragansett. Brass noted that he did not think that it was entirely appropriate to fully discuss funding activities of the U.S. Science Program in view of the international nature of the ODP.

Beiersdorf (FRG): Is the NSF wholly responsible for the DSDP phase out?

Brass: Monies for the phase out come from co-mingled funds.

Cadet (France): Does the ODP budget contain funds to guard against major problems (e.g. the loss of a couple of drill strings)?

Brass: On both the short- and long-term outlooks, there is not much flexibility in the budget to guard against major problems.

Von Herzen: After reviewing the Narragansett EXCOM minutes, it is still not clear how the cost overrun occurred.

Garrison (TAMU): The size of the overrun is still not fully known as negotiations over the costs are continuing.

Brass: This issue is a policy matter and not a planning matter. I have been asked to urge the PCOM to consult with their EXCOM counterparts on this matter.

Hayes (LDGO): Science planning will be affected by the cost overrun matter and therefore should be addressed by PCOM.

#### 531 JOINT OCEANOGRAPHIC INSTITUTIONS INC REPORT

J. Clotworthy (Vice President, JOI Inc.) reported that JOI has put together a management proposal to cover the next 3 years of ODP. The program plan for FY 86 is not yet complete but is being done with guidance from NSF and input from the subcontractors (TAMU, LDGO, and the JOIDES Office). The program plan (scheduled for completion on 1 May) is being prepared on the basis of 4 international members, and it should be ready for discussion at the EXCOM meeting on 5 June and at PCOM on 25 June. The program proposal will be ready by 1 June.

JOI in its original management program to NSF scheduled a program performance evaluation that was to be conducted every 2 years. Within the coming year, a review panel of 6 members (whose appointments will be filled by the end of April) will conduct evaluations of the drillship at St. John's port call in October and will visit TAMU and LDGO. A report of these findings will be submitted to the President of JOI, J. Baker, and ultimately to NSF.

The report of the ad hoc review panel that met in March to evaluate the ODP Databank will be ready by the June PCOM meeting.

#### Discussion:

Hayes (LDGO): Will the FY 86 program plan be given to PCOM for comment or on an information only basis?

Clotworthy: If compromises are needed, JOI will approach the PCOM with alternatives and will request guidance for their prioritization.

Brass (NSF): If alternatives exist, they will contain scenarios for budget surpluses as well as budget deficits.

Kastner (SIO): If the program plan is ready by 1 May 1985 and the full proposal by 1 June 1985, is it possible that the PCOM could review both documents at the 25 June meeting?

Clotworthy: It is probable that the program plan will be available and possible that the proposal may be available.

Larson (URI): Will the program plan contain a full budget with options?

Clotworthy: The plan will contain a full budget with alternatives.

7  
Several PCOM members noted that a review of the Miami EXCOM minutes indicated that a number of items are planned to be deferred from the FY 85 budget into FY 86. These planned deferrals will impact on science planning in the long term and members expressed apprehension on receiving this information after the fact.

Members stressed that it is very important to have PCOM input into the budgetary planning and urged the development of several "crisis" scenarios to be presented at the next PCOM meeting. It was further suggested that a standby committee be formed to address any problems that may occur in FY 86. To aid in financial planning the PCOM suggested that JOI develop a list of items to which ODP is contractually bound by leasing or other arrangements.

### 532 SCIENCE OPERATOR REPORT

L. Garrison (ODP/TAMU) reported.

#### CO-CHIEF STAFFING

Leg 106 (MARK I) - J. Honnorez and R. Detrick  
Leg 107 (Tyrrhenian Sea) - not yet selected  
Leg 108 (NW Africa) - not yet selected  
Leg 109 (MARK II) - W. Bryan and J. Juteau

#### SHIPBOARD SCIENCE STAFFING

Staffing for Leg 104 (Norwegian Sea) under the co-chiefs J. Thiede and O. Eldholm has been completed. For leg 105 (Baffin Bay/Labrador Sea), selections are due after the co-chief meeting at the end of May.

#### BARE ROCK DRILLING

Garrison reported that the plans for hard rock drilling are proceeding on schedule and that requests for proposals for the high resolution black and white television system are out.

Discussions have been held with Southern International concerning the drilling operations and a conference between one of the co-chiefs on Leg 106 and S.I. will combine the proposed drilling operation with scientific objectives. Presently, drilling is based on a mud motor design in which the drill pipe does not rotate. The design further calls for the use of an inner core barrel that would simultaneously recover core samples while continuing drilling activities. The rotating

design reduces the effect of fatigue and compression during drilling and predicts a very stable configuration.

#### CLEARANCES

The clearance to drill in Spanish waters has been received which acknowledged the invitations to include Spanish scientists among the shipboard party. However, Spain has requested an additional 4 scientific berths due to their membership of the ESF-ODP consortium. R. Kidd (Manager of Science Operations) will go to Barcelona to clarify the invitation which is one of coastal countries representation and not one of ODP representation. Kidd will also discuss ODP benefits, their participation in ESF and clarify their ODP obligations. It is hoped that this meeting will clarify the issue of participation.

Talks have occurred with the Norwegian Petroleum Directorate (NPD) and the Canadian Oil and Gas Leasing Administration (COGLA). In both countries, the protocol is to negotiate with the agencies that administer offshore petroleum activities. Both groups presented a long list of requirements to ODP that included blowout prevention, weather planning and shipboard ~~injuries~~. TAMU is in communication with both agencies and it appears that many of the requirements will be waived as the RESOLUTION is a non-industry vessel. However, COGLA states that 3 requirements must be met:

1. use of a support vessel for ice spotting and tracking
2. a trained ice observer must be onboard together with a regular weatherman
3. survival suits for all personnel on the RESOLUTION

TAMU is now purchasing the survival suits (at \$350/suit) and they will be available for Legs 104 (Norwegian Sea) and 105 (Baffin Bay/Labrador Sea), and all subsequent legs.

#### Discussion:

Larson (URI): What is the status of procuring the scout vessel?

Garrison: Negotiations are in progress with private and public agencies with regard to the cost of the scout vessel. Presently, estimates are running between \$300-400 K/day. It has been suggested that the USCG NORTHWIND may be available specifically for the use of ODP.

Brass (NSF): The Coast Guard has been contacted and will consider the suggestion.

Malpas (Canada): Do the costs cover Baffin Bay of Labrador Sea or both?

Garrison: The costs cover both locations.

## REPORT ON SHIPBOARD ACTIVITIES

TAMU has developed a 2-part reporting system on the ODP Bulletin Board in the OCEAN.NET system. The first part of the series contains the latitude and longitude of the drillship while the second part, which is addressed to specific individuals, contains a weekly summary of the science report and the operations report. The second part is updated every Monday and it is not on the public bulletin board. However, all PCOM members who wish to gain access to this system will be added to the listing.

Also, TAMU reports the whereabouts of the drillship to the Defense Mapping Agency who in turn notifies the U.S. Navy and other interested parties.

### Discussion:

Schrader (OSU): During hard rock drilling will the upper 30-50 m be recoverable?

Garrison: There is no mechanical reason why the upper section cannot be recovered, provided there are no rubble zones. If rubble zones exist then it becomes necessary to stabilize the hole initially with cement. This would make recovery of the upper section difficult.

Honnorez (UM): Since the cementing process is very important in stabilizing the drill hole, are there plans to obtain different types of cements?

Garrison: Studies of the various kinds of cements have been done but these were done in regard to cementing in the guidebase. The data suggests that 2 types of cements are needed.

Kastner (SIO): How long will it take to establish the drill hole?

Garrison: If there are no problems, it should take 2 weeks to stabilize and drill the hole.

Larson (URI): In terms of unrecoverable hardware, what is the cost of those items that will be left on the seafloor?

Garrison: Estimates show that approximately \$225K (\$60K-hardware + \$165K- cement, jell, casing) worth of material will remain on the ocean floor.

Moberly (HIG): Will the guidebase frame be specially coated for re-entry at a later date?

Garrison: Presently, a standard organic zinc coating is applied. What will happen to the coating in the next 40-50 years is unknown.

Honnorez: What is SEDCO's role in the guidebase project and are they responsible for the selection of the drilling cement?

Garrison: In a couple of weeks, SEDCO will deliver to ODP the design for the guidebase. The selection of drilling cements should be discussed when the co-chief scientists for MARK I and Southern International representatives meet.

Honnorez: Do you have an idea as to scheduling of the system?

Garrison: Two complete systems will be ready by August 1985. A final design for the guidebase will be ready by late April and requests for estimates to build will be sent out shortly thereafter. At about that time, testing of the Meso-Tech sonar and television camera will occur. One proposed camera was eliminated due to the cost (approx. \$40K), so if one could be borrowed or rented from one of the oceanographic institutions there is room on the bracket for it.

Schrader: Is the drilling rate slower on the RESOLUTION than on CHALLENGER and will it increase in the future?

Garrison: The rate did start off slower than CHALLENGER but, this is due to a number of reasons - the use of the iron roughneck and various other tools and the inexperience of the drilling crew. At the end of Leg 101 (Bahamas), the rate did increase and was comparable to CHALLENGER.

Schrader: Could you give us an update on shipboard instrumentation and their installation status?

Garrison: The XRF was not onboard for Leg 101 but was onboard for Leg 102. The cryogenic magnetometer will be installed during the Norfolk port call. The underway geophysics lab is complete but cavitation problems exist with the 12.5 kHz and 3.5 kHz transducers. EDO Western has been made aware of the problem and will try to solve it ~~before the~~ *without getting* ship ~~goes~~ into drydock.

#### CHANGES TO LEG 103 (GALICIA BANK) DRILLING PLANS

TAMU advised the PCOM Chairman that in early February, based on their best estimates for drilling and recovery rates of the scientific objectives for Leg 103, an additional 7 days was required to be added to the Leg. After consulting with the action committee (Larson, Honnorez, Beiersdorf), it was recommended that 5 days be added to Leg 103 at the expense of 5 days from Leg 102 (W. North Atlantic). This resulted in the abandoning of the scientific objectives at DSDP Site 603. The co-chiefs on Leg 103 were asked to devise other time-saving possibilities to achieve the scientific goals in order and as prioritized at the Austin PCOM.

Presently, plans call for drilling the lherzolite ridge initially within the 7-day time frame as decided in Austin. The original plan was to then drill sites 4A and 4B, with a re-entry cone set at Site 4B for deeper penetration. This has been changed to save time and the consensus is to now drill for the objectives of 4A and 4B at one site. The plan calls for setting a cone at 4B with continuous coring. It should also be noted that deepening the site has the approval of the Safety Panel down to a depth of 2 km. The time saved is approximately 2 days.

**Discussion:**

PCOM members expressed concern over the timing of the request after discussions and decisions were made at the Austin PCOM.

Hayes (LDGO): Scenarios and drilling times were discussed and decided on in mid January at the Austin PCOM. Between then and early February more time is required. How did this happen?

Garrison: The initial drilling estimates presented in Austin contained operational days but no contingency time was built in. More time is required to account for contingencies.

Kastner (SIO): I was informed that the time request is the result of a mistake in the calculation of drilling time estimates and not so much one of contingency times.

Larson (URI): The mistake is the result of miscalculations in determining the time it would take to drill the Cretaceous section of the site. The root of the problem was a misapplication of the drilling rates used during DSDP drilling of the Vigo Seamount. The time request is a combination of correcting the mistake plus contingency time.

Kastner: How much contingency time is planned in the change to drilling the entire section of Site 4B?

Garrison: Those figures are not known at this time. Legs are adjusted to give every leg sufficient operational days to meet objectives and in the case of Leg 103 adjustments had to be made.

Gartner (TAMU): If this time request is over-estimated, can it be used to supplement additional legs?

Garrison: It is unlikely that the time will be used to supplement other legs due to scheduling commitments.

Various PCOM members expressed concern with regard to the trading of days between Legs 102 and 103. It was suggested that perhaps all the PCOM members should have been polled for advise rather than leaving such

decisions to an ad hoc committee. There was general agreement that in the future once drilling times were determined to meet agreed scientific objectives there should be every effort made to adhere to them. It was suggested that the ODP reinstate a DSDP procedure in which panels were contacted at such times in order to avoid having a theme suffer.

#### LEG 106 (MARK I) SITE SURVEY

The site survey for the MARK I area is presently scheduled to be conducted in May 1985. Plans call for using a variety of new equipment on CSS HUDSON to conduct the SeamARC side scan and deep towed camera surveys.

The Science Operator Report closed with requests from PCOM members concerning public relations material. Requests were also made for the publishing of drill site summaries and results in detail in the JOIDES Journal.

#### 533 WIRELINE LOGGING SERVICES OPERATOR REPORT

Dan Fornari reported that a general summary of logging activities on Leg 101 (Bahamas) is found in the draft minutes of the 18-19 March 1985 EXCOM meeting. Initial logging reports from Leg 102 suggest that logging was very successful with some logging experiments conducted through the drill pipe. Fornari commented that this may be the standard logging operation in the future and that this procedure greatly reduces the chances for losing logging tools.

On Leg 102, the Natural Gamma Tool worked very well and the logging crew was able to resolve the sediment/basalt contact and delineate smectite and basalt through the drillpipe.

The Logging Services Operator wants to ensure that a complete suite of standard logging tools be available for each ODP leg. LDGO has made an agreement with Schlumberger to take 2 of each tool in order to assure that standard logging activities will be conducted. Two of each tool onboard the drillship are being charged ODP at a rate that is \$300-400/day less than commercial costs.

Operations in FY 85-86 look favorable as the budget allows LDGO to provide standard and specialty logging services. However, there are some tools (that were unused on the first 2 legs) that are being removed at a substantial savings to the program. These are the temperature log, the Barnes pore fluid sampler and the tracer ejection tool. These specialty tools will be reinstated in the future as requests warrant them and after a means to provide funding for them has been found. The decision as to which tools are needed for logging is made by Downhole Measurements Panel with advice from co-chief scientists.



The daily cost of the standard logging operation is \$2150 and this includes the cyber unit and standard tools. Within the ODP-Schlumberger contract, there is enough flexibility to remove or replace tools (dependent on availability) as needed with no penalty costs to ODP.

For Leg 103 (Galicia Bank), two gamma spectroscopy tools (GST) as well as a newly trained logging technician will be available and starting with Leg 104 (Norwegian Sea), GST capabilities should be a routine part of logging activities.

At LDGO, the first edition of the logging manual has been published and distributed. Furthermore, shipboard as well as on shore facilities are completely operational. The only major shipboard problem encountered so far has been the inability to get the winch, which lowers the logging tools, to operate sufficient slowly at the necessary speed of 20 ft./min.

#### **HIGH TEMPERATURE TOOLS**

Groups at Los Alamos, Sandia Labs, U.S.G.S. and Lawrence Livermore Labs have expressed considerable interest in the development of high temperature tools. The most promising approach to keeping tools cool appears to be using a tool pusher to circulate cooling fluids. This concept would allow logging operations to be conducted using conventional equipment.

#### **TAM WIRELINE PACKER**

There are presently no funds in FY 84-85 for packer development. Agreements have been signed with AMOCO, but there has been no progress due to the lack of funding. AMOCO continues to develop the packer, however, ODP must streamline and miniaturize the unit to fit within the drill string.

There will be no new packer for Leg 110 (Barbados N.); however, the Lynes packer and the TAM drill string packer will be available. The budget for FY 86 will contain funds for the wireline packer development and the tool should be ready by 1987.

#### **HEAVE COMPENSATOR**

D. Yurger (WHOI) was contracted by ODP to conduct numerical analyses of the heave compensator and the results were sent to the engineers at Schlumberger. The compensator should be available prior to Leg 105 (Baffin Bay/Labrador Sea) with a more definite date known by the June PCOM.

The result of the analysis indicates that the Schlumberger design is quite functional but data did indicate problems with the controller system. Schlumberger has been made aware of the problems and sees no problems with Leg 105 delivery date.

**Discussion:**

Kastner (SIO): Why were the 3 logging tools that were removed from the program not used on Legs 101 and 102?

Fornari: On Leg 101, time constraints were such that some tools did not get used.

Honnorez (UM): It was suggested that there was no time to conduct logging due to complaints from the co-chiefs on Leg 101?

Fornari: This is not entirely correct. Standard logging activities need a maximum of 36 hours to a depth of 4000 m. The chief scientist should be aware of this time constraint and factor this into the cruise plans.

Schrader (OSU): Are these figures factored into the operational days calculation?

Garrison (ODP/TAMU): Time for logging is indeed scheduled into the calculation.

Kastner: The co-chief scientists should probably be informed on the amount of time it takes to conduct the specialty logging tools.

Brass (NSF): Perhaps, Wireline Services could produce a publication, similar to drilling time estimates, which explains estimates of logging times for standard and specialty tools.

Larson (URI): What is the status of the back-up tools?

Fornari: All the standard tools have a replacement tool with the exception of the multichannel sonic tool and the borehole televiewer. There are funds in the FY 86 budget to purchase a second for each of these tools.

Beiersdorf (FRG): Does this policy include spare cables?

Garrison: Plans now call for the inclusion of spare cables since cable was lost on Leg 101.

Von Herzen (WHOI): What is the status of software development on the ship?

Fornari: On the ship, we have unlimited use of the cyber unit program. However, there is no funding for the logging analysis software on the shipboard computer. The capability to analyze this data exists on shore

but not yet at sea. We have asked for funds in FY 86 to extend this capability to the RESOLUTION.

It was suggested that LDGO explore the possibility of converting the logging computer at Palisades to a sea-going unit in order to facilitate logging analysis at sea.

Fornari further reported that a summary of logging reports for Legs 101 and 102 are being prepared. Also, DSDP logs are being prepared for publication as a catalogue which will be available (along with ODP logs) on an annual or biannual basis.

Schrader (OSU): Will the logging results be part of the ODP site chapters?

Garrison (ODP/TAMU): It has been suggested that they appear in the "blue book" format with a summary of standard logging information and analyses of data and special sections but the format is still in a state of flux.

Larson (URI): The ODP publication scheme presently suggests that the summary of standard logging information would be in the first publication and the analyses and special sections would appear in the second publication.

Consensus: It is the consensus of the PCOM that the data from the standard logging tools be printed as a logging summary in the initial site chapter (Part A) and interpretations and analyses should appear in Part B of the volume. This consensus should be referred to the Information Handling Panel and the Downhole Measurements Panel.

Several PCOM members expressed concern over the consensus. It was emphasized that such a general statement cannot be made until the details of the format and the amount of data are known. Further it was asked if the release of the logging data falls within the guidelines as set by the ODP Sample Distribution Policy. Continued debate centered on whether this material should really be handled differently than core photos or core description data. The discussion ended with another consensus.

Consensus: The format question will reside with the IHP and DMP. The PCOM consensus is general advice.

The Wireline Services Report was concluded with the Operator asking advice of the PCOM and making the following closing remarks:

1. Is it necessary to carry an LDGO person on the bare rock drilling tests (Leg 106)?

2. There will be 2 LDGO technicians on the ship until Leg 105; beginning with leg 106 (MARK I) there will only be 1 LDGO technician.

3. LDGO expressed concern over whether the Spanish logging technician on Leg 103 is sufficiently informed about ODP logging capabilities and asked if the LDGO logging technician could be given staff representative status equal to the TAMU staff representative for this leg to assure that the logging program is fully completed.

#### 534 REPORTS FROM CO-CHIEFS ON LEGS 101 AND 102

##### LEG 101 SUMMARY

J. Austin, Co-chief Leg 101, reported that the objectives of the cruise were to test two hypotheses (graben vs. megaplatform) for the development of the Bahama Banks and to examine types of carbonate slopes in terms of their Paleogene and Neogene evolution.

Attempts at setting a re-entry cone in the Straits of Florida proved to be unsuccessful as surface currents with speeds of 1.5 to 3.5 knots caused vibration problems along the drill string. Of 4 sites proposed only one single bit hole was drilled. Site 626 was the first site and was probably the most difficult technical site. Drilling yielded 460 m of carbonate rubble and resulted in very low recovery rates in the unconsolidated sand (less than 5%). However, HPC work resulted in 80-90% recovery. At Site 627 (Blake Plateau), HPC and EXB systems worked with 97% HPC recovery and 60% XCB recovery. However, there was evidence of drilling artifacts from the XCB. On the first logging attempt with the neutron gamma ray tool, normal recovery of the tool failed. Attempts to recover the tool by fishing failed and the tool was left in the hole which was plugged with cement. Traces of hydrocarbon gas were also found. Site 628 (Little Bahama Bank) was continuously cored with the APC/XCB with 73% overall recovery rates and the hole was terminated in nannofossil ooze of L. Paleocene age. Site 629 (Little Bahama Bank) was an unsuccessful attempt to spud in at Site BAH-7. Recovered material consisted of sandy carbonate ooze, lime sand and rubble, and fragments of friable limestone, all of Quaternary age. At Site 630 (Little Bahama Bank), the APC/XCB had an 88% recovery rate and the HPC had a 99% recovery rate. Site 630 provided an excellent record of the off bank transport of fine-grained sediment from the carbonate platform during the last 10 million years. Drilling at Site 631 (Exuma Sound) yielded sediments with very high sedimentation rates, a high organic carbon content, pyritized layers and a large amount of subsurface diagenesis. The APC/XCB had a 65% recovery rate. At Site 632 (Exuma Sound), the APC/XCB system yielded 59% recovery rates. The section was drilled with a rotary bit; however, drilling was terminated because of minor occurrences of hydrocarbons. Recovery of the hole generally was 21%. Site 633 (Exuma Sound) was drilled with APC and XCB coring achieving 48.7% recovery. The section contained aragonite which was interpreted as bank-derived material. Site 634, NW Providence

Channel, was drilled with a rotary bit that resulted in 5.8% recovery. The site was abandoned because of poor hole conditions.

In summary, the ship operated quite well, although there are two major problems - a) the navigation system must be upgraded, and b) the core handling area should be protected before a serious accident occurs.

**Discussion:**

Von Herzen (WHOI): Could you summarize the problems of setting the re-entry cone in the Straits of Florida?

Austin: The major problem was that vibration problems along the drill string prevented setting of the cone. The vibration is the result of a streaming action that was produced when current at depth is going in an opposite direction at the surface.

Honnorez (UM): Has there been any improvement in the navigation system?

Garrison (ODP?TAMU): Nothing has been done yet as onboard equipment of that nature is the responsibility of SEDCO. TAMU, in the future, will purchase a GPS system.

Austin: I strongly advise the system be immediately upgraded as Leg 101 lost 6-12 hours waiting for satellite fixes.

PCOM expressed concern over the state of the satellite navigation system and recommended the problem be solved in the following consensus.

Consensus: The co-chief scientist for Leg 101 has identified a serious deficiency in the satellite navigation system. The Science Operator was advised to negotiate with SEDCO in order to correct the situation. The PCOM requests that this issue be reported on at the June PCOM.

**LEG 102 SUMMARY**

M. Salisbury, Leg 102 Co-chief, reported that Leg 102 had 2 objectives to re-enter Hole 418 A and to conduct borehole geophysical experiments. The hole was successfully re-entered and cleaned to a depth of 5863 m, then washed down to 6232 m. A logging tool that was presumed left in the hole during DSDP drilling was not found and appears to have been sheared off and lost outside the hole while it was being raised.

All logging tools worked well with the exception of the lateral log, which had calibration problems, and the packer, which developed

mechanical problems down hole. Also the large scale resistivity experiment was not done.

The 3-axis magnetometer worked very well and produced good data. The susceptibility tool and the LDGO 12-channel sonic tool performed well although the multichannel sonic tool worked better in the lower two-thirds of the section. The borehole seismometer performed well until it experienced an electrical short. The borehole televiewer was deployed but not used due to problems in the hole. Finally, temperature profiles were made in the sediment section and at depth. Water samples were also taken at depth.

The oblique seismic equipment worked very well and produced a spectacular data set for R. Stephen.

Salisbury recommended that the hole be cased within the sediment section to prevent slumping which made the handling of wireline activities delicate and that wireline re-entry not be attempted until the hole is cased.

During subsequent discussions, it was pointed out that 2-3 days were lost due to technical problems with the acoustic unit on the beacon and problems with the re-entry tools. One to two days were lost due to the inexperience of the drilling crew and a few hours were lost due to positioning problems. Further, it was indicated that problems with the speed control on the winch made it difficult to conduct logging of holes at slow speeds.

#### 535 PANEL REPORTS RELEVANT TO SHORT-TERM PLANNING (LEGS 104-114)

##### ATLANTIC REGIONAL PANEL

R. Buffler reported.

##### Leg 103 (Galicia)

ARP expressed concern that its September 1984 recommendation to move Site 4B upslope in order to sample oldest syn- and pre-rift sediments in a more abbreviated way was not followed. However, events at this meeting seem to have addressed this concern.

##### Leg 105 (Baffin Bay/Labrador Sea)

ARP was not aware of recent modifications concerning Baffin Bay/Labrador Sea drilling and asked that in the future all documents related to Atlantic drilling be copied to them.

ARP recommended that the co-chiefs be reminded of the importance of the Paleogene and Neogene paleoceanographic objectives in the region. ARP also recommended that if drilling at BB-3 is going well, the hole should be deepened to a total depth of 1600-1700 m. If Baffin Bay

cannot be drilled, then the co-chiefs are advised to set a cone at LA-5 and drill to basement (about 25 days). Then they should proceed to LA-2A (HPC and rotary drilling - 10 days). Finally, ARP advises drilling LA-9A (about 13.5 days). This is Plan C as suggested by Labrador Sea drilling proponents.

Leg 110 (Barbados North)

Co-chief recommendations: C. Moore and A. Mascle.

Leg 107 (Tyrrhenian Sea)

Co-chief recommendations: J. Mascle and R. Thunell. Alternates: M. Cita, K. Kastens, W. Ryan, Rehault.

ARP has yet to evaluate the drilling plan for the Tyrrhenian Sea because the Mediterranean WG has not yet met to finalize a drilling program. It was noted that a very successful multichannel seismic survey was recently conducted in the area and additional time is needed to process the data. The Chairman of the Med-WG was asked to schedule a meeting before June to supply the ARP Chairman with recommendations and priorities to be presented at the June PCOM and to give the Science Operator sufficient time to prepare the cruise.

After discussion, the PCOM strongly suggested that the data from the area be rapidly processed so that the Med-WG could meet and decide on drilling priorities prior to the June PCOM. L. Montadert (ARP Chairman) should at that time present a prioritized list of drilling objectives to the PCOM. The Committee noted that it is essential that the drilling schedule be presented at this time.

**CENTRAL AND EASTERN PACIFIC PANEL REPORT**

R. Buffler reported that CEPAC recommended that the Gulf of California drilling proposals be re-entered into scientific planning. The Panel reaffirmed its position that the Chile Triple Junction is conceptually important but more information and extensive marine geological and geophysical work is required before a drilling program can be developed. The Panel suggested that Chile Triple Junction should not be considered for drilling at this time.

CEPAC strongly recommended that two legs be devoted to EPR hydrothermal drilling at 13°N. The Panel continues to view DSDP 504B as exciting science but it remains a lesser objective in the short-term planning than the "new" ridge crest processes.

CEPAC reaffirms that one leg of Peru drilling and two legs of EPR hydrothermal work are of top priority. Further, the 504B and 504B area proposal of Mottl should be the back-up to EPR drilling. The Panel proposed the following:

Leg 111 EPR  
Leg 112 EPR  
Leg 113 Peru

504B and 504B (Mottl) area (back-up)

At the March 1985 meeting, CEPAC re-evaluated their short-term objectives as decided on at the Oxford, UK meeting in September 1984. This reconsideration has occurred in light of actions taken by the PCOM since September and the availability of new documentation concerning DSDP Hole 504B (Lithosphere Panel Proposal) and 504B area drilling (Mottl proposal).

**Discussion:**

Von Herzen (WHOI): I thought that two site surveys (U.S. and France) were scheduled for the Chile TJ area?

Brass (NSF): Reviews of the S. Cande proposal have not yet been received in our office and the French survey using the JEAN CHARCOT does not appear forthcoming.

Cadet (France): In view of the delay in a decision being reached on the Cande proposal and from logistical and scientific points of view, IFREMER has decided that it would be very difficult to conduct the site survey.

Larson (URI): Will the ODP position on the Chile Triple Junction (i.e. whether to keep it in the schedule or not) affect funding decisions of the Cande proposal?

Brass: The proposal will be judged based on its scientific merit. The decision of where it will be funded, whether it be in the ODP or Submarine G&G Offices of NSF, has not yet been decided. If the Chile Triple Junction is removed from the drilling schedule, the proposal will be referred to other appropriate areas of NSF.

**SEDIMENTS AND OCEAN HISTORY PANEL REPORT**

H. Schrader reported that SOHP recommends the development of a "sand core-catcher" to enhance the recovery of unconsolidated sand-dominated sequences, that continuous "strip" photography (black and white and color) be considered for all cores recovered, and that a palynologist be included as a part of routine shipboard staffing.

**Recommendations of co-chiefs:**

Leg 107 (Tyrrhenian Sea): R. Thunell and M. Cita  
K. Kastens and J. Mascle  
Leg 108 (NW Africa): M. Sarnthein and W. Ruddiman  
Leg 109 (MARK II): no suggestions



Leg 110 (Barbados N.): C. Moore  
Leg 111 (EPR): no suggestions  
Leg 112 (Peru Margin): E. Suess and L. Kulm  
Leg 113 (Chile TJ): no suggestions  
Leg 114 (Weddell Sea): J. Kennett and D. Futterer

SOHP recommended that, for short-range planning, the PCOM be advised of the following:

Leg 103 (Galicia): Continuous coring at and below the Cenomanian-Turonian boundary (L. Cretaceous).

Leg 105 (Baffin Bay/Labrador Sea): Requested 70 days for BB-3B and LA5 drilling. SOHP emphasized that the Paleogene records from both sites are necessary.

Leg 108 (NW Africa): SOHP strongly endorses a comprehensive L. Paleogene-Quaternary package proposed by Sarnthein/Ruddiman.

Leg 114 (Weddell Sea): SOHP recommends the following site priority rankings:  
1-W1, 2-W2, 3-W4, 4-W5, 5-W10, 6-W6, 7-W7, and 8-W8.

SOHP remarked that the above program, in its entirety, ranks above the proposed Subantarctic traverse. SOHP also suggested that the operations times suggested by SOP are very optimistic and when more realistic times are used the proposed sites probably cannot be accommodated in a 70-day leg. Sites W6-W8 would rank above W5 if it can be demonstrated that the objectives can be achieved (i.e. using grain size and magnetic fabric in order to monitor AABW production through time and to examine water masses at different depths). SOHP considers this an important objective and suggests that the method be demonstrated on piston or gravity core samples as part of the site survey requirement.

SOHP recommended that SA8, SA2, and SA3 be drilling items of a lower priority during the Subantarctic transect. However, if W6-W8 cannot be drilled in the Weddell Sea it may be possible to use the three sites as alternatives.

#### Discussion:

Larson (URI): How do Sites W6-W8 compare to the SOP recommendations?

Schrader: Sites W6-W8 were given equally high priority by SOP. However, their ranking by SOHP is contingent on the demonstration of scientific objectives.

Hayes (LDGO): Did SOHP prioritize the 11 first priority sites proposed for Leg 108 drilling?

Schrader: The present number of priority sites is a distillation from 25 first priority listings.

Moberly (HIG): It must be stressed that if the panels do not prioritize their listings, the PCOM will have to do so. Therefore, it is in the best interest of the panels to do so since they have the expertise.

Consensus: It is the consensus of PCOM that SOHP prioritize the 11 first priority sites proposed for NW Africa.

#### LITHOSPHERE PANEL REPORT

J. Honnorez reported that LITHP continues its strong support for 504B drilling and for a higher priority to be set for lithosphere drilling within ODP. LITHP also reiterates the need to have K. Becker appointed as a member. LITHP further continues its strong support for TAMU drill pipe TV acquisition but recognizes the complexity of the problem and urges TAMU to take advantage of existing expertise within the community.

#### MARK I Drilling

LITHP reported that final site selection for MARK I (Leg 106) is presently not practical as the SeAMARC I survey has been delayed until May. However, the majority of LITHP preferred using Legs 106 and 109 to get two holes started rather than concentrating on a single hole.

#### East Pacific Rise Drilling

Because of the intensive collection of data along the EPR during the summer of 1985 (4 cruises, 2 ALVIN, 1 dredging, 1 MCS), LITHP decided to defer final site selection until early 1986 following the processing of the MCS data. LITHP hoped that other activities, such as staffing and logistics could proceed on schedule and not be delayed by decisions on detailed site selection. The Panel did, however, request that the co-chiefs be appointed as soon as possible so that they can take part in planning activities.

#### Discussion:

Larson (URI): Are co-chief nominations dependent on LITHP drilling plans?

Honnorez: It was understood by proposal proponents that their selection as a co-chief is not dependent on whether their proposal is or is not incorporated into planning. All proponents are aware of this and all

would accept, if nominated, even if their proposals were not included in the drilling package.

#### Downhole Measurements

As reported earlier, several groups at Los Alamos, Sandia, U.S.G.S and Lawrence Livermore have expressed considerable interest in the development of high-temperature tools. LITHP has been made aware of a concept in which a tool pusher allows fluid to flow around the tools, sufficiently cooling them to a point where they can be used in hot holes. This appears to be extremely promising for using the borehole televiewer, sonic, caliper, 3-axis magnetometer and resistivity measurements using conventional equipment. However, it was suggested that large scale resistivity or OSE was probably not practical and that temperature and water sampling data would probably contain no useful information. Finally it was suggested that one of the major problems associated with EPR drilling lies in protecting the relatively temperature-sensitive logging cable.

LITHP also emphasized the importance of wireline re-entry to the progress of downhole experimentation.

#### Discussion:

Larson (URI): What is the schedule for the co-chief meeting for Leg 106?

Honnorez: A definite date has not been set but it could occur as early as June but probably in July/August.

Von Herzen: In regard to MARK drilling, is there a preference expressed in the two sites recommended?

Honnorez: Site preference depends on the results of the site survey. Both sites are on the MAR with one located 50 km south of the Kane FZ and the other closer to the Kane FZ to examine lithospheric thinning. The idea is to deploy two guidebases and drill until normal drilling conditions begin. We have chosen drilling in the Kane FZ as an alternative should this fail.

#### TECTONICS PANEL REPORT

R. Moberly reported that the TECP reconfirmed its priorities for drilling during Legs 111-113, as they were presented at the Austin PCOM. These are Peru drilling as its highest priority, Chile TJ as its second highest priority, and Barbados South as third highest priority.

TECP recommended the following persons for the co-chief scientist positions on Leg 110 (Barbados N.): J. Ladd, A. Mascle, C. Moore, and M. Marlow.

#### POLLUTION PREVENTION AND SAFETY PANEL REPORT

A. Mayer reported.

#### Drilling in Hot Hydrothermal Areas

The Panel discussed potential safety considerations from drilling in hydrothermal areas, such as steam flashes. It was agreed that specialist advice should be sought from experts in the area of hot rock drilling such as the Los Alamos Laboratories.

#### Safety Manual and Related Matters

The Safety Manual is being revised and will need Panel review prior to publication as a special issue of the JOIDES Journal. Early publication is recommended to assist the Science Operator in negotiations for drilling permissions with coastal authorities. It was recommended that guidelines for data to be provided for safety reviews should be included in the "Guidelines" special issue of the JOIDES Journal.

#### Leg 105 (Baffin Bay and Labrador Sea)

Baffin Bay sites - Approved by the Safety Panel (with conditions) at August 1984 meeting (3B-1, BB-3A, and BB-3B).

IA-5 - Site approved as proposed noting that there may be a need to move around the site in order to avoid boulders (to 1486 m).

IA-5A - Approved on condition of site relocation to the cross-point of lines 12 and 14 (to 650 m). Site was relocated because of poor record quality and lack of crossing line at the proposed location.

IA-9 - Approved with the recommendation that the site be located at the cross-point of lines 8N and 4E (to 850 m). Site was relocated for same reasons as IA-5A.

IA-2A - Approved as proposed to 903 m depth.

IA-2B - Approved as a re-entry site drilling to basement. Relocated 7 kms west to shot-point 6340 on line BGR 17 (to 1835 m).

IA-7 - Not approved because insufficient information was available at this time. If more information becomes available safety review can be obtained by mail.

LA-4 - Approved as proposed (to 600 m).

LA-4A - Approved to a depth of 700 m at shot-point 1186 on line 73 I 13-70164.

Leg 104 (Norwegian Sea)

VOR-2A - Approved to 1500 m and to be drilled first.

VOR-2B - Approved on the condition that there are no significant hydrocarbon shows at site 2A (to 1000 m).

VOR-1 - Approved as proposed to 1400 m on the same condition as 2B.  
Note: The Panel expressed concern with the general location of sites 2A, 2B, and 1 at a structurally high position with a large potential drainage area. Drilling was approved on the condition that the down dip location (2A) be drilled first to confirm the absence of a drilling hazard.

VOR-3A - Approved to 1500 m.

VOR-3B - Approved to a depth of 1300 m with a recommendation to move the site N (seaward) to shot-point 1400 on line C/194. A further condition is that site 3A must be drilled before 3B. Site was relocated from the top of a structural high.

VOR-4 - Approved as proposed (shot-point 9600 on line NH-1).

VOR-5 - Approved for hydraulic piston coring to sediment refusal or 300 m, whichever comes first.

Note: Previous drilling in the area (DSDP Site 341) has demonstrated shallow biogenic gas and fluorescence suggestive of migrated hydrocarbon. For this reason, rotary drilling was not approved in this area.

Leg 106 (MARK)

MARK-1A - This is the bare rock site and was approved as proposed.

MARK-1B - Nodal basin drilling was approved as proposed.

Note: Final sites will be chosen following a SeaMARC survey and using TV and imaging sonar.

536 SHORT-TERM PLANNING

LEG 104 (NORWEGIAN SEA)/LEG 105 (BAFFIN BAY/LABRADOR SEA)

Legs 104 and 105 were considered as a single package because decisions based on weather constraints on Leg 105 would impact planning for Leg 104.

At the Austin PCOM, Leg 104 was assigned 47 days (total) with 41 drilling days. PCOM at that time requested that the drillship depart Stavanger, Norway no later than 15 August 1985. After drill times were estimated, the Science Operator developed 2 sets of scenarios:

<u>SITE</u>	<u>ESTIMATED TIME (DAYS)</u>	
	<u>Plan A</u>	<u>Plan B</u>
VOR 2A	22	24 (re-entry)
VOR 2B	19	25 (re-entry)
VOR 4	5	11
VOR 5 (HPC only)	1	
	<u>47</u>	60

There are presently 47 days assigned to reach the scientific objectives (42 drilling + 5 transit days). The Science Operator found it difficult to achieve cruise objectives with the 47-day time frame and asked that 8 days be added to increase the total number of days to 55 days. These 8 days would come from what was taken from Leg 102 and by delaying the Stavanger departure date (Leg 105) from 15 August to 23 August.

#### Discussion:

Schrader (OSU): What becomes of the 8 days, if the most optimistic scenario (Plan A) works?

Garrison (ODP/TAMU): In that case we would still leave Stavanger on 23 August instead of 15 and we would not lose any ice-out time because the optimum days for ice out in Baffin Bay occur no earlier than the last week in August and no later than the second week in September.

Von Herzen (WHOI): At Austin, PCOM wanted the ship to leave Stavanger on the 15th in order to get to the Labrador Sea Site (LA 5) and be ready so that when the ice cleared out drilling operations could begin to optimize the time spent in Baffin Bay. This proposal plan may compromise these objectives.

Malpas (Canada): The deferral of the start date means that if the ship goes straight into Baffin Bay (BB-3) from Stavanger, you delay the LA-5 drilling. If you return to LA-9 that results in additional transit time. If that occurs that time puts you in early November which is the beginning of the storm period.

Larson (URI): The real compromise is that the whole Labrador Sea drilling plan is delayed to the point that it conflicts with the storm period.

Malpas: With the additional transit time you may completely lose LA-5. Is it possible that the ship could take on more fuel and steam at 12-12.5 knots into Labrador Sea from Norway in order to save time?

Garrison: This is very easily arranged and estimates show that time could be saved by going at 12 knots and would not really increase fuel costs by very much.

Von Herzen: Could the scientific objectives of Leg 104 be reviewed?

Larson: Voring Sites 2A and B will test the dipping reflector hypothesis and Sites 4 and 5 will address paleoenvironmental considerations and will sample Eocene and Quaternary environments. Voring 2A will sample shallow objectives and 2B will be drilled to basement to sample Reflector K.

Kastner (SIO): Since the objectives of VOR 2B call for drilling 450 m of sediment followed by 1 km of drilling into basement, would ARP consider drilling only 100 m or so into basement?

Austin (UT): At the last ARP meeting, the co-chiefs for Leg 104 suggested drilling VOR.2A then drilling Site 4 with no attempt at Vor 2B. Site 4 is very important in terms of paleoenvironmental objectives.

Larson: How would ARP react if there was an omission of some objectives of VOR 2A and 2B? Would there be serious alterations in the overall objectives?

Austin: ARP would probably place a major emphasis in VOR 2A, if adjustments were in order, then steam to Site 4.

It was the consensus of PCOM that the paleoenvironmental objectives remain as a backup to drilling the dipping reflectors. Presently the plan calls for drilling the dipping reflectors and resolving Reflector K. If these objectives cannot be reached then the ship should go to Site VOR 4. Honnorez moved; Schrader seconded.

**MOTION:** Leg 104 (Norwegian Sea) include as first priority objectives drilling at VOR 2A to resolve the nature of dipping reflectors leaving the co-chief scientists the freedom to decide when to stop drilling 2A and dedicate the remainder of the 40 working days to the leg to either resolve the dipping reflectors at VOR 2B or to go to Site 4 to pursue paleoenvironmental objectives.

Vote: for 11, against 0, abstain 1.

Larson: Does the proposed 70-day length of Leg 105 cause TAMU/SEDCO problems?

Garrison: The 70-day length causes problems in 4 areas: weather, morale, logistics and expenses (minor). If Leg 105 is 70 days (based on a Leg 104 at 47 days) then the ship arrives in St. John's approximately 2 November which is the storm season. Discussions with the co-chiefs of Leg 105 indicated that good information could be obtained by doing less at IA-5 which results in a leg that is less than 70 days.

During discussion, it was stated that the 8-day delay at the beginning of Leg 105 and the present arrival date in St. John's of late October/early November could combine to affect the attaining of the scientific objectives. Therefore, a 70-day length is needed for Leg 105. The Science Operator replied that if all goes perfectly then 70 days is reasonable but in reality, the weather, problems with the ship and the science objectives combine to make a 70-day leg not feasible.

The co-chiefs for leg 105 (Srivastava and Arthur) have suggested a compromise plan with 62.5 total days. This compromise, known as Plan E, involves a compromise between the objectives at IA-5 and IA-9. The result is a new IA-5A that is approximately 27 km NE of IA-5. The objectives of this site lie in the upper 650 m of the sequence with the penetration of reflector R2 (Oligocene) as the deepest objective. In summary, this plan would:

1. achieve nearly all the original objectives of Leg 105
2. eliminate the weather problem at IA-5 on the return trip
3. guarantee the recovery of a Paleogene high latitude sequence at least one site
4. allow sampling of IA-9 which is at a critical latitude for intercorrelation of N. Atlantic and Labrador Sea/Baffin Bay sequences and it is in a sensitive latitude for examining Paleogene-Quaternary paleoclimate fluctuations.

It was the general feeling of PCOM that Plan E appears to be a good compromise as all objectives are reached within the bounds of the weather problems. The PCOM further asked if a port call change from Stavanger to Rekjavik would aid the Science Operator in planning logistics. The Science Operator stated that change of ports would create additional problems in resupplying the ship and the time potentially saved does not outweigh the problems that would be created.

The following motion was moved by Malpas and seconded by Moberly.

**MOTION:** The Science Operator attempt to arrange that Leg 105 commence on a date such as not to compromise the original scientific objectives of the drilling plan (i.e. 25 days for drilling to basement at BB-3 and 25 days of drilling to basement at IA-5) and to finish in St. John's by the end of October. The port of departure for Leg 105 should be arranged to facilitate operational procedures.

Vote: for 8, against 1, abstain 3.



## LEG 106

Leg 106 is designed as an engineering test leg and prepares the groundwork for Leg 109 (MARK II) scientific operations. The backup for bare rock drilling is drilling in the Kane Fracture Zone at the ridge-transform intersection basin. The second priority is drilling along the fracture zone valley wall and to the north of the basin. It should also be noted that all holes are single bit objectives.

In January 1984, the PCOM set a limit of 30 days for bare rock drilling after which the ship was to proceed to other objectives in the fracture zone. Presently, Leg 106 is scheduled to last 40 operational days plus 17 transit days, for a total of 57 days.

J. Honnorez (co-chief) proposed an alternative plan to the January 1984 directive in which he suggested using 30 days to set two quidebases and to proceed with drilling and using the remaining 10 days to drill in the R-T nodal basin. The PCOM indicated that the plan was a reasonable alternative to the January 1984 decision and decided to readdress the issue at the June PCOM after the SeaMARC site survey of the area is completed.

### **INTERMEDIATE SHORT-TERM PLANNING**

#### Leg 107 (Tyrrhenian Sea) Co-chief Recommendations

PCOM discussed the possible inclusion of an ESF representative (M. Cita) as a co-chief scientist. Discussion reflected a cautious reluctance concerning the inclusion of a non-ODP member to such a position; however, it was indicated that similar situations had occurred during the DSDP. The consensus was to offer J. Mascle and K. Kastens the co-chief positions with their alternates to be selected by the Science Operator from the list of panel nominees.

#### Leg 108 (NW Africa)

M. Sarnthein and W. Ruddiman were nominated as co-chiefs by the ARP and SOHP. PCOM advised the Science Operator to invite them as the co-chiefs, leaving sufficient time for ARP and SOHP to make further nominations in the event that they decline the invitation. PCOM also requested that a drilling plan with priorities be readied by the co-chiefs and which would be presented at the June PCOM.

#### Leg 109 (MARK II)

T. Juteau and W. Bryan are the co-chief scientists.

Planning for Leg 109 will begin in April 1986, however, it was indicated that a geophysicist should be added to the science staff.

Leg 110 (Barbados North)

Co-chief recommendations:

TECP: J. Ladd, A. Mascle, C. Moore, M. Marlow  
ARP: C. Moore, A. Mascle  
SOHP: C. Moore  
PCOM: W. Bryant

The consensus of PCOM was that C. Moore and A. Mascle be selected as co-chief scientists with J. Ladd recommended as an alternate. The other alternate positions will be filled by the Science Operator.

Discussion:

Larson (URI): Is the wireline packer available for Leg 110?

Fornari (LDGO): The packer, which was deferred due to budgetary constraints, will not be ready by Leg 110 because development and engineering will not result in a prototype until 1987. Even if funds were made available, the packer may not be ready by Leg 110.

Von Herzen (WHOI): How much money is needed to develop the packer?

Fornari: If \$200 K were available, the packer could be developed.

It was the view of PCOM that the delay in the development of the wireline packer is an example of how the lack of appropriate funds is impacting on the science of the program. PCOM suggested that LDGO investigate their present budget and use the funds available to develop the packer. The Wireline Operator's response was that the funds needed for development are not in the FY 85 budget. However, if advised, LDGO will refocus their program in FY 86 to develop the wireline packer. It was recommended that a list of tools (with priorities) be established which would facilitate a reference listing when budgetary problems occur. This was officially expressed in the following consensus.

Consensus: A subcommittee should be formed to prepare a PCOM priority listing of items from which short-term decisions on purchasing will be made. The committee will be composed of the PCOM Chairman (R. Larson), R. McDuff, and R. Von Herzen. The list will be compiled after reviewing previous lists and adjustments to the present list will be made as they are needed.

Fornari: The LDGO logging group will develop scenarios that will deal with the lack of funding as of 1 October 1985.

It was further recommended that the panels be notified concerning the lack of the new wireline packer on Leg 110 and suggested that they review the possible impact on their scientific objectives.

#### Leg 111 (EPR Drilling)

Co-chief scientists recommendations:

LITHP: Bougault/Macdonald (alts. Francheteau, Natland, Thompson, Langmuir, Batiza, Becker, Von Hergen)

CEPAC: no recommendations

It was the consensus of PCOM that Bougault and Macdonald be invited as co-chief scientists for Leg 111 and that there be no prioritization of the alternates. J-P. Cadet abstained from the PCOM consensus.

#### Leg 113 (Chile Triple Junction)

R. Buffler proposed the following motion which was properly seconded by Beiersdorf:

MOTION: Remove the Chile Triple Junction from the current schedule due to logistical and not scientific issues.

Vote: for 8, against 4, abstain 0.

After further discussion a second motion developed that was proposed by Kastner and seconded by Hayes.

MOTION: Defer the decision on the extra time issue until there is more information on Legs 107-114 (June PCOM).

Vote: for 10, against 0, abstain 2.

Consensus: PCOM agreed that a "watchdog" system be put in place to aid in planning whereby a PCOM member would be assigned to compile a 2-page summary with maps and act as a proponent for one of the legs up to and including the Weddell Sea. The JOIDES Office will compile the information which will be discussed at the next PCOM meeting.

Watchdogs and their assigned packages are as follows:

Tyrrhenian Sea - J-P. Cadet  
NW Africa - H. Schrader  
MARK I & II - J. Honnorez  
Barbados N. - R. Buffler  
EPR I & II - R. McDuff (will develop 1- & 2-leg scenarios)  
Peru Margin - M. Kastner and H. Schrader  
Weddell Sea - D. Hayes  
504B - JOIDES Office

("Watchdog" reports are needed by the JOIDES Office no later than 1 June.)

Consensus: There are a sufficient number of important scientific opportunities (palaeoenvironment) in the Chile Triple Junction area that would be lost if some attempt at drilling was not done. Therefore the area should be kept in competition for future science planning.

Schrader agreed to ask SOHP to consider the submission of a proposal to address palaeoenvironment objectives in the SE Pacific as part of a transit leg.

#### 537 PANEL REPORTS RELEVANT TO LONG-TERM PLANNING

##### WEDDELL SEA DRILLING

There was agreement among the PCOM that the length of the initial Weddell Sea leg be extended to the 70-day limit as suggested by the Science Operator. However, some members of PCOM objected to assigning to the leg the maximum number of total days at this time. It was suggested, on the other hand, that the assigning of the 70 days would be a minimum commitment for which to continue planning.

The PCOM requested that drilling plans be prepared for presentation at the June PCOM.

##### SOUTHERN OCEANS PANEL REPORT

As the Panel would not meet until 22 April, R. Larson distributed copies of a letter from the SOP Chairman, J. Kennett. The letter stated the following:

"The Southern Oceans Regional Drilling Panel strongly recommends to the Planning Committee that the proposed Subantarctic Leg in the South Atlantic remain as part of the future drilling plans. The scientific objectives are considered to be of high priority, although of slightly

lower priority than most of the Weddell Sea objectives. The data from the Falkland Plateau and the anticipated results of Weddell Sea Drilling provide a framework for evaluation and interpretation of Subantarctic sites, and can reasonably be expected to yield as coherent a set of results as that from any other comparable region.

Two legs will also allow full utilization of the brief austral summer weather-window (January-April) while the drilling vessel is making one of its rare visits to the Southern Hemisphere. Given the severe logistic constraints and the large number of scientific objectives, a second Southern Ocean leg in the South Atlantic will be of major importance.

Like the Weddell Sea, very high priority is given to the completion of drilling objectives on the Kerguelen Plateau-east Antarctic margin, including the extension of the north-south transect between Kerguelen Island and Broken Ridge. Our mail vote resulted in the highest priority for the other objectives being given to the transect between Kerguelen Island and Broken Ridge. The next highest ranking was given to the Adelie Land Coast drilling, although realistically it does not compete as an Indian Ocean objective because of its location far to the east. The next priority in the ranking was the Crozet Plateau-Fracture Zone drilling, followed closely by Agulhas Plateau and lastly by the central Antarctic-Australian mid-ocean ridge (cold-spot trace).

Given the remoteness of the Kerguelen-East Antarctic margin area coupled with the large number of drilling objectives, our panel strongly requests the Planning Committee investigate the possibility of crew-change-resupply at Kerguelen Island using a second vessel."

#### Discussion:

Garrison (ODP/TAMU): SEDCO reports that two 51 1/2-day legs, with a 3-day port call in between (at Kerguelen), are needed in order to conduct the crew change-resupply operation. This assumes the ship would leave from Durban, go to the Kerguelen area, do 40 days of operations, and return to Kerguelen Island. This also assumes that another ship would bring out a new crew and 25 tons of supplies with no new drill pipe. The RESOLUTION would then do another 40 operational days at a different site and then transit 8 days to Perth. The supply ship would need to bring out 110-120 new people to make the crew change. This plan is possible if a supply ship is available.

Cadet (France): The MARION DUFRESNE is available to fulfill the role of the supply vessel. The MARION DUFRESNE is capable of transporting approximately 90 passengers, 25 tons of cargo and approximately 250 K gallons of fuel. The cost would be about \$17 K/day from Reunion Island to Kerguelen back to Reunion Island.

During discussion other ship possibilities were mentioned such as the use of Australian supply ships and former whaling vessels based in

South Africa. However, it was decided that the DUFRESNE was the best possibility. The PCOM asked if there would be problems scheduling the DUFRESNE if a decision was delayed until June. TAMU agreed to contact ODP-France to discuss scheduling and the French PCOM representative would contact the group in charge of the DUFRESNE.

#### INDIAN OCEAN PANEL REPORT

The PCOM received the following revised list of drilling objectives with scores of the voting and estimated drilling legs.

	<u>Score</u>	<u>Legs</u>
1. Kerguelen-Gaussberg, first leg	9.50	1
2. 90° East Ridge	8.25	1
3. Neogene Package	8.00	1
4. Red Sea	7.63	1
5. SEIR	7.38	< ½
6. Broken Ridge	6.88	½
7. Kerguelen, second leg	6.75	< 1
8. Argo AP & Exmouth Pl.	6.75	1
9. Cent. Ind. Basin & Distal Bengal F.	6.25	1
10. Davie Ridge	5.00	< ½
11. SWIR FZ	4.88	< ½-1
12. Chagos-Laccadive-Mascarene	4.63	< ½
13. Makran	4.50	½-1
14. Agulhas Pl., 1st site	3.50	< ½
15. Rodriguez TJ	2.88	½-1
16. Fossil Ridges	2.25	< ½-1
17. Cold Spot	1.75	½ ?
18. Agulhas Pl., 2nd site	1.25	< ½
19. W. So. Australia	1.13	1
20. N. Somali Basin	0.63	1+

The IOP indicated that these objectives and their arrangement into a schedule are constrained by severe weather limitations, especially for the Kerguelen-Gaussberg (1 and 7) and northern Arabian Sea objectives (3 and 13). The IOP discussed several possible schedules which are presented in the full minutes of the 20-22 March 1985 meeting.

#### Red Sea Working Group Report

Three themes that are unique to the Red Sea area emerged from the March 11-13, 1985 meeting which was held at LDGO. These are:

1. Evolution of the lithosphere as expressed by the nature of the igneous rocks produced through the transition from continental to oceanic rifting.
2. Hydrothermal activity and metallogenesis in a young rifted margin.
3. Sedimentary history of a young rifted margin.

They then proposed various strategies for addressing these themes and an ideal drilling program involving 11 sites was developed:

1. Axial Trough
2. Atlantis II Deep (natural laboratory)
- 2a. Thetis Deep (alternative to AII deep)
3. Nereus Deep (possible natural laboratory)
4. Kebrit Deep
5. Mabahass Deep
6. Shaban Deep
7. Bannock Deep
8. Zabargad Ridge
9. Coral Seapeak
10. No. Red Sea Site
11. Main Trough (Sudanese Delta)

The Red Sea Working Group concluded that one leg would be needed to accomplish the primary objectives of the Red Sea.

#### WESTERN PACIFIC PANEL REPORT

R. Moberly reported that WPAC presented the following preliminary list of priorities for drilling in the western Pacific region. A firmer ranking will result from the next WPAC meeting in August.

<u>Region</u>	<u>Rank</u>
So. China Sea	1
Nankai Trough	2
Banda Sea	3
Okinawa Trough	4
Sulu Sea	5
Japan Sea	6
Bonin Trench (Toe)	7
Sumba Region, Trench Toe	8
Bonin Trench	8
Coriolis Trough	10
Bonin Forearc	11
D'Entrecasteau Ridge	12
Lau Basin	13
South of Taiwan	14
Palawan Toe	14
Ozborn Smt/Louisville Ridge	16

Site surveys needed to better define the high priority regions include: Banda Sea, seismic reflection and swath mapping; Bonins, MCS lines in forearc basin, sampling of serpentine diapirs; and Sumba forearc and South of Taiwan, MCS.

WPAC supports workshops on arc systems (Hawkins) planned for June 1985 in La Jolla and Western Pacific drilling planned for Singapore (Curcum-Pacific Min. Resources conference) in 1986.

#### SEDIMENTS AND OCEAN HISTORY PANEL REPORT

H. Schrader reported that SOHP consulted the COGS-2 document in determining Indian Ocean and Western Pacific Drilling. Rankings are as follows:

##### Indian Ocean Drilling

1. Amery (Antarctic) margin-Southern Kerguelen transect
2. Oman-Owen Ridge-Somali margin-Indus Cone, Neogene package
3. Somali Basin deep hole (Mesozoic Tethys), one deep hole
4. North Kerguelen-Southeast Indian Ridge transect polar front
5. Exmouth Plateau-Argo Abyssal Plain transect
6. Chagos-Laccadive Ridge (or 90° East Ridge)

##### Western Pacific

In addition to areas of interest summarized at the last meeting, further discussion (prioritization will await formal liaison with WPAC and CEPAC) revealed strong interests in:

1. Great Barrier Reef program
2. Queensland Plateau-Ontong Java Plateau
3. Scott Plateau and environs
4. Pore water chemistry-diagenesis in accretionary (generic) prisms
5. Volcanic episodicity, eolian transport, tephrochronology (generic)

##### Riser Targets

1. With stated limitations (1800 water depth; 1992 start)
  - a. penetration of evaporite sequences (Med., Red Sea, S. Atl.)
  - b. penetration of gas hydrates (Sea of Japan, Sea of Okhotsk, Cariaco Trench, Chilean Margin).
  - c. Continental slopes (Niger Delta, NW Africa Mesozoic)
2. SOHP argued strongly that longer riser (3 km) would significantly enhance capabilities and the number of attractive targets.

#### LITHOSPHERE PANEL REPORT

J. Honnorez reported for LITHP.



## Indian Ocean

Priorities are:

1. Red Sea - L1 (Working Group)
2. Aus-Ant Discordance - L6 (Langmuir)
3. SW Indian Ridge Fracture Zone - L4 (Dick and Natland)
4. Carlsberg Ridge - L2 (Natland)

If a good hot spot trace program (e.g. 90° East Ridge) is formulated we would place that second only to the Red Sea. If Brocher can show reasonable possibility of solving technical problems then Crozet Basin (L7) would be ranked below Dick and Natland but above Natland.

**IMPORTANT:** These are LITHP's priorities only within the Indian Ocean. We consider back-arc spreading center drilling in the Western Pacific to be a significantly higher priority than all of the above projects.

## Western Pacific

Major progress planned at next meeting when results of Hawkins' workshop are available.

## **TECTONICS PANEL REPORT**

R. Moberly reported on TECP recommendations for Indian Ocean Drilling. A brief justification is provided for the top four choices. The scores, as well as the range of scores and proposal proponents, are also presented.

1. Makran accretionary prism and slope basins (Leggett proposal) 8.75; 6-10. Excellent opportunity to address rates of deformation and uplift in clastic-dominated prism, and transition from slope-basin sediments to basement.
2. Intraplate deformation and fluid flow (Weissel et al.) 8.43; 7-10. Innovative plan to determine timing and rates of deformation of long wavelength flexures in an intraplate setting, and to address how fluid flow influences high heat flow.
3. (tie) Southwest Indian Ocean fracture zone (Dick and Natland) 7.0; 2-9. Opportunity to document vertical sequence of rock types and fabrics, in a setting characterized by slow relative plate motions, for comparisons with deformed parts of ophiolites on land.
4. (tie) Bengal-Indus fans (Curry et al.) 7.0; 3-10. Addresses a fundamental on-land tectonic problem, the uplift history of a collisional orogen, the Himalayas. Distal fan facies may reflect timing and rate of uplift as well as eustatic sea-level changes.

Targets 5-10 were ranked as follows. Comments in the minutes explain that drilling on Kerguelen (7) and in the Red Sea (10) would have ranked higher if proposals at hand had included specific tectonic objectives:

- |     |                                                   |      |
|-----|---------------------------------------------------|------|
| 5.  | 90° East Ridge, Broken Ridge hot spot targets     | 6.50 |
| 6.  | Broken Ridge rifting and uplift (Weissel et al.)  | 6.43 |
| 7.  | (tie) Chagos-Laccadive ridges (Duncan; Heirtzler) | 6.25 |
| 7.  | (tie) N. Somali Basin (old Tethyan crust)         | 6.25 |
| 7.  | (tie) Kerguelen                                   | 6.25 |
| 10. | Red Sea (proposal of RS-WG presented by Cochran)  | 6.20 |

### Riser Drilling

TECP suggested that the earlier stages of the rifting process could possibly be addressed during riser drilling.

### Discussion:

After the panel presentations discussion centered on a philosophical difference between LITHP and WPAC concerning the plan for focused drilling in a back-arc region. WPAC presently does not believe that the controls are sufficiently understood to allow for detailed planning. It was decided to defer further debate on the issue until after a 25-27 June workshop on the matter has convened and reported on in August.

### 538 LONG-TERM PLANNING

The PCOM Chairman suggested that since there would not be another meeting before June, it is important for PCOM members to study the complete minutes of the Indian Ocean Panel, the Lithosphere Panel, and the Tectonics Panel in order that detailed planning for the Indian Ocean could be conducted at the next PCOM. The SOHP and SOP chairmen are to be consulted for more detailed information on their panel's high priority objectives and this information will be sent in the June PCOM meeting package. A summary of each panel's objectives for the Indian Ocean is presented in Appendix A.

R. Moberly and G. Brass expressed disappointment that detailed planning of the Indian Ocean, which was the purpose of this meeting as decided in Austin, did not occur at this meeting.

R. Moberly: In view of the general responsibility of planning drilling three years in advance, one of the two main purposes of this meeting was to plan general drilling in the Indian Ocean. I ask that the minutes reflect my disappointment that we were unable to do so.

The PCOM asked the SOP for more specific details concerning Subantarctic and Weddell Sea drilling.

Each PCOM member was asked to bring a map with their own favorite drilling plan for the Indian Ocean.

#### 539 DATE OF NEXT MEETING AND MEETINGS SCHEDULE

Future PCOM meetings are:

25-27 June 1985 - Hannover, FRG  
8-10 October 1985 - Narragansett, RI  
4-7 February 1986 - La Jolla, CA (with panel chairmen)

PCOM members were advised to plan for three full days at the PCOM meeting in Hannover.

#### 539 OTHER BUSINESS

##### PANEL MEMBERSHIP

At the EXCOM Narragansett meeting the PCOM Chairman was advised to fill panel vacancies at the April PCOM meeting if the membership issue was not resolved. However, due to the potential for membership by the ESF/Australia consortium and the UK, the EXCOM at Miami advised the PCOM Chairman not to fill those slots within the panels until the June PCOM.

The PCOM Chairman said that it was necessary to fill the chairmanship slots of two JOIDES panels - TECP which was chaired by J. Leggett (UK) and SSP which was chaired by J. Jones (UK).

The following motion was moved by Beiersdorf and seconded by Malpas.

MOTION: The PCOM approves the appointments of J. Peirce as chairman of the Site Survey Panel and D. Cowan as chairman of the Tectonics Panel.

Vote: for 12, against 0, abstain 0.

The PCOM Chairman requested nominations for the chairmanship of TEDCOM as soon as possible.

##### SCIENCE OPERATOR LIAISON WITH JOIDES PANELS

b) Other data relevant to the proposal which may be obtained from publicly accessible data bases in the U.S. and elsewhere.

c) Data which will eventually be available for public access but has release clauses imposed by the data holder (proponent). These data are not normally considered as part of the evaluation of the scientific merit of the related proposal.

Section D should be changed from 24 months to 36 months to be consistent with the flow diagrams shown in Figure 1.

#### TERMS OF REFERENCE

The JOIDES Office has also revised the Terms of Reference. The revision was presented to PCOM for approval.

The following motion was moved by Moberley and seconded by Buffler.

**MOTION:** The words "task group" be removed from Section 1, and Section 3.2 and that Section 6 be deleted. Section 9 should replace Section 6 and within that section, the words "task groups" be removed and replaced with "working groups."

**Vote:** for 12, against 0, abstain 0.

**Consensus:** The concept of working groups should be revised to the original wording as written at Morpeth PCOM plan and the Swindon EXCOM acceptance.

The PCOM expressed its sincerest thanks to R. Moberly for his service to the Committee as his period of membership has expired. D. Hussong (HIG) will replace Moberly.

The PCOM thanked H. Stewart for his hospitality in hosting the PCOM meeting in Norfolk and the meeting was adjourned.

The PCOM Chairman has approved the attendance of ODP/TAMU Staff Scientists as panel liaisons. In agreeing to this liaison, the PCOM Chairman has advised the staff scientists in the following terms:

Attendance at panel meetings is to facilitate information transfer between ODP/TAMU and the JOIDES panels. Staff scientists are to provide technical and logistical information about the ship, the instruments and the program so that the panel members have a better idea of what's possible, impossible, and equally importantly, marginal. In return, attendance at these meetings gives staff scientists some insight into possible upcoming scientific programs, plans and policies. Staff scientists are to participate in this information transfer but not to participate actively in the formulation of the science. Staff scientists must not mistake scientific programs, plans and policies made by the panels as the final words on these subjects. All of this information is funnelled up to the Planning Committee which is the final arbiter of the scientific program.

<u>Staff Scientist</u>	<u>Speciality</u>	<u>Liaison For</u>
Dr. Andrew Adamson	Igneous Petrology	LITHP
Dr. Christian Auroux	Geodynamics	SSP
Dr. Jack Baldauf	Diatom Micropaleontology	ARP
Dr. Brad Clement	Paleomagnetism	IOP
Dr. Audrey Meyer	Sedimentology	TECP & WPAC
Dr. Amanda Palmer	Radiolarian Micropaleontology	SCHP
Dr. Elliott Taylor	Physical Properties	CEPAC & DMP

Further liaisons will be announced once staffing is completed.

#### REVISED GUIDELINES FOR PROPOSAL SUBMISSION

Guidelines for the submission of proposals/ideas were revised by the JOIDES Office and were presented to the PCOM for approval.

The guidelines were reviewed by the PCOM and the following changes were agreed:

Reword section C.2 to read:

Proponents are asked to identify available data in three categories:

- a) The primary data necessary and sufficient to support the scientific proposal. The ODP Databank is authorized to duplicate and distribute these data as needed for ODP evaluation and planning procedure.

INDIAN OCEAN PROPOSALS - PRESENT RANKING BY PANELS

<u>TECP, Mar. 18-20, 1985</u>	<u>Score</u>	<u>IOP, Mar. 20-22, 1985</u>	<u>Score</u>
Makran	8.75	Kerguelen, One Leg	9.50
Intraplate Deformation	8.43	90° East Ridge Hot Spot and Paleoceanography	8.25
SW Indian Ridge Petrology } Bengal-Indus Fans } 90° East Ridge-Broken Ridge Hot Spot	7.00	Neogene Package	8.00
Broken Ridge, Uplift and Rifting	6.43	Red Sea	7.63
Chagos-Laccadive Hot Spot } N. Somali Basin Deep Hole } Kerguelen Basement }	6.25	SE Indian Ridge Transect	7.38
Red Sea	6.20	Broken Ridge, Uplift & Rift	6.88
S. Australia Quiet Zone	6.00	Kerguelen, Second Leg } Exmouth-Argo Transect }	6.75
Timor Collision	5.62	Intraplate Deformation	6.25
S. Australia, Old Ocean Crust	5.50	Davie Ridge	5.00
		SW Indian Ridge Petrology	4.88
		Chagos-Laccadive Hot Spot and Paleoceanography	4.63
		Makran	4.50

SOHP, Feb. 21-23, 1985

Kerguelen-Amery Transect  
Neogene Package  
N. Somali Basin Deep Hole  
Kerguelen-SE Indian Ridge Transect  
Exmouth-Argo Transect  
Chagos-Laccadive Paleoceanography  
Subantarctic Transect

LITHP, Feb. 26-27, 1985

Red Sea  
(Hot Spot Trace)\*  
Cold Spot  
SW Indian Ridge Petrology  
(Crozet Basin)\*\*  
Carlsberg Ridge

\*If a good program is formulated.

\*\*If technical problems are solved.

SOP, Apr. 9, 1985 letter from Kennett

Kerguelen-Amery Transect  
Subantarctic Transect  
Kerguelen-SE Indian Ridge Transect  
Adelie Land Coast  
SW Indian Ridge Petrology  
Agulhas Plateau  
Cold Spot