

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

MINUTES

PCOM Members:

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

Panel Chairmen:

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

Liaisons:

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

Guests/Observers:

J. Baker - Joint Oceanographic Institutions Inc.

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

ODP/TAMU:

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

JOIDES Office:

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

576 INTRODUCTIONS AND WELCOMING REMARKS

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

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

577 ADOPTION OF THE MEETING AGENDA

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

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

Vote: 15 for; 0 against; 0 abstain

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

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

JOIDES Site Survey Panel

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

Vote: 15 for, 0 against, 0 abstain

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

Membership

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

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

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

Review of the Budget for FY 87-88

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

Rotation of Planning Committee Membership

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

JOIDES Panel Structure

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

COSOD-2; Long Range Planning of the ODP

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

580 NATIONAL SCIENCE FOUNDATION REPORT

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

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

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

Discussion:

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

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

581 JOINT OCEANOGRAPHIC INSTITUTIONS REPORT

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

Performance Evaluation Committee Report

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

Discussion:

Kastner: Did the PEC review the present panel structure ?

Mayer: The PEC covered all aspects of the Program.

Budget Planning for FY 87

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

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

582 SCIENCE OPERATOR REPORT

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

Leg 105 (Baffin Bay/ Labrador Sea)

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

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

In continuing his report, Arthur reported that while the cruise was generally successful, a number of problems did occur. The late start in leaving St. John's was due to repairs to the drillstring heave compensator which reduced drilling operations by 2 days. Additional problems in drilling operations (e.g. having to pull out of the hole (POOH) and relocate the drill site after encountering subsurface glacial dropstones) resulted in the loss of another 4 days. The Pliocene-Quaternary age sedimentary sequence caused several problems, especially repeated core liner failures. Biostratigraphic age determinations and reconstructions were difficult because of the low CaCO₃ concentrations in the sediment. The Advanced Piston Corer (APC) was successfully used in heavy seas using the drillstring heave compensator.

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

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

Leg 106 (MARK-1)

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

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

Hard Rock Drilling Guidebase

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

Deployment

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

Drilling

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

Engineering Recommendations

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

Current Operations and Future Plans

Current Schedule (APPENDIX C)

Leg 107 (Tyrrhenian Sea)

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

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

Leg 108 (NW Africa)

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

Discussion:

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

Packer Development:

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

Engineering Development:

Underway Geophysical Capability of RESOLUTION:

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

Engineering and Technology Developments and Priorities:

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

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

Specifically, Harding reported on the following developments:

Leg 107

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

Leg 108

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

Leg 109

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

Leg 110

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

Leg 112

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

Future Activities

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

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

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

Discussion:

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

583 WIRELINE LOGGING SERVICES OPERATOR REPORT

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

Leg 107 (Tyrrhenian Sea)

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

Leg 108 (NW Africa)

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

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

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

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

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

Vote: 13 for, 1 against, 1 abstain

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

584 ANNUAL REPORTS FROM JOIDES PANEL CHAIRMEN

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

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

Discussion:

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

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

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

Discussion:

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

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

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

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

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

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

Central and Eastern Pacific Regional Panel (CEPAC)- APPENDIX
(presented by D. Rea- Univ. of Mich.)

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

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

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

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

Technical and Engineering Development Committee (TEDCOM)- APPEN-
DIX R

(presented by J. Jarry- IFREMER)

585 REVIEW OF JOIDES SCIENTIFIC ADVISORY STRUCTURE

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

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

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

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

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

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

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

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

586 SHORT-TERM PLANNING

Revisions to the 1986 Ship Schedule

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

Leg 108 (NW Africa)

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

Leg 109 (MARK-2)

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

Discussion:

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

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

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

Vote : 11 for, 3 against, 0 abstain

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

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

Vote: 14 for, 0 against, 1 abstain

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

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

Vote: 15 for, 0 against, 0 abstain

Leg 110 (Barbados)

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

Leg 111

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

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

Vote: 13 for, 0 against, 0 abstain

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

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

Vote: 12 for, 2 against, 1 abstain

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

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

Vote 15 for, 0 against, 0 abstain

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

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

Co-Chief Scientists for Leg 111:

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

Leg 112 (Peru Margin)

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

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

Leg 113 (Weddell Sea)

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

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

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

Vote: 5 for, 1 against, 8 abstain

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

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

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

Leg 114 (Atlantic Sub-Antarctic)

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

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

587 MEDIUM RANGE PLANNING (INDIAN OCEAN 1987/88)

Review of proposed drilling in the Indian Ocean:

Southwest Indian Ridge (SWIR)

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

Neogene Package

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

Mascarene Basin/ Fossil Ridges

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

Proposed by Robinson and seconded by Honnorez.

Vote: 15 for, 0 against, 0 abstain

Red Sea Program

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

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

Kerguelen-Antarctic Margin (Prydz Bay) Program

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

Broken Ridge/90°E East Ridge

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

Intraplate Deformation Program

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

Argo-Exmouth

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

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

Rodriguez Ridge/Mascarene Plateau and Otway Basin Programs

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

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

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

Vote: 13 for, 0 against, 2 abstain

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

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

Vote: 14 for, 1 against, 0 abstain

588 LONG-TERM PLANNING (PACIFIC OCEAN 1989-)

Overall Time in the Pacific Ocean

It was suggested that the time of circumnavigation, as suggested by COSOD, imposes an unnecessary constraint that should be removed. This action, it was further suggested, would allow the scientific objectives to constrain the amount of time in the area. It was the consensus of the PCOM that the panels (WPAC, CEPAC and

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

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

Vote: 14 for, 1 against, 0 abstain

589 PANEL MEMBERSHIP

Panel Rotations

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

Panel Chairmanships

PCOM agreed to the following names:

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

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

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

PCOM Liaisons

The following changes in PCOM/panels liaisons were made:

TECP- add P. Robinson (Canada)

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

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

Panel Chairmen's Meeting

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

590 ANY OTHER BUSINESS

Rotation of the JOIDES Office

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

Meeting Schedule

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

11-15 August 1986 Corner Brook, Newfoundland, Canada

PCOM Chairman Absence in March-April

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

Lead Time in Planning

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

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

COSOD-2

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

The PCOM thanked M. Kastner for hosting the meeting and arranging the field trip. J. Winterer was thanked for acting as the field guide. W. Nierenberg was thanked for hosting a reception for the PCOM and R. Anderson, M. Zoback and R. Jarrard (Wireline Services Contractor) were thanked for the logging seminar. The meeting was adjourned.