

JOIDES PLANNING COMMITTEE SUMMER MEETING

22-24 August 1989

University of Washington

Seattle, Washington

MINUTES

Members:

J. Austin - University of Texas at Austin
G. Brass - University of Miami
M. Cita-Sironi - University of Milano, ESF Consortium
D. Cowan - University of Washington
R. Duncan - Oregon State University
H. Jenkyns - Oxford University, United Kingdom
M. Kastner - Scripps Institution of Oceanography
D. Hayes - Lamont-Doherty Geological Observatory (alt. for M. Langseth)
M. Leinen - University of Rhode Island
J. Malpas - Memorial University, Canada-Australia Consortium
C. Mevel - Université Pierre et Marie Curie, France (alt. for Y. Lancelot)
R. Moberly (Chairman) - Hawaii Institute of Geophysics
A. Taira - Ocean Research Institute, Japan
B. Tucholke - Woods Hole Oceanographic Institution
U. von Rad - BGR, Federal Republic of Germany
J. Watkins - Texas A&M University

Liaisons:

R. Anderson - Wireline Logging Services (ODP-LDGO)
L. Garrison - Science Operator (ODP-TAMU)
B. Malfait - National Science Foundation
T. Pyle - Joint Oceanographic Institutions, Inc.

Guests and Observers:

A. Crawford - University of Tasmania, Australia
J. Delaney - RIDGE, University of Washington
P. Fryer - Hawaii Institute of Geophysics
E. Kappel - Joint Oceanographic Institutions, Inc.
A. Meyer - Science Operator (ODP-TAMU)
M. Purdy - Woods Hole Oceanographic Institution
E. Silver - University of California at Santa Cruz
B. Taylor - Hawaii Institute of Geophysics

JOIDES Planning Office:

L. d'Ozouville - Executive Assistant and Non-US Liaison
G. Waggoner - Science Coordinator

Tuesday, 22 August 1989

793 Introduction

PCOM Chairman Ralph Moberly called the 1989 Summer Meeting of the JOIDES Planning Committee to order. Darrel Cowan welcomed everyone to the University of Washington. Cowan explained logistics including the joint PCOM/USSAC boat cruise and dinner party hosted by the College of Ocean and Fishery Science of the University of Washington. Moberly thanked Cowan for leading a wet but nevertheless enjoyable field trip to the San Juan Islands before the meeting. Moberly welcomed new PCOM members J. Austin, M. Cita-Sironi, and R. Duncan, and the alternates standing-in for this meeting, D. Hayes and C. Mevel. He also welcomed A. Crawford from the Australian ODP Secretariat and who is the Canada-Australia Consortium PCOM alternate for J. Malpas.

794 Minutes of 2-4 May 1989 Oslo PCOM Meeting

Moberly called for comments, corrections and approval of the previous minutes.

M. Cita questioned the wording and general tone of a sentence on page 4 of the minutes concerning the 4th Annual Co-Chief Scientist Review Meeting for legs 119 to 124. The wording was substantiated by L. Garrison. B. Tucholke suggested a clarification be made so that the sentence now reads "There was a concern that Co-Chiefs do not always fully understand the objectives of a leg as defined by PCOM and JOIDES panels." (addition in bold).

PCOM Motion

PCOM approves the minutes of the 2-4 May 1989 Planning Committee meeting with amendments. (Motion Tucholke, second Leinen)

Vote: for 16; against 0; abstain 0

795 Approval of Agenda

Moberly called for additions or revisions, and then for adoption of the agenda for the meeting.

C. Mevel asked that Y. Lancelot's letter of 5 August 1989 to R. Moberly be discussed. This was placed in Item R, Other Business.

PCOM Motion

PCOM adopts the agenda for the 22-24 August 1989 Planning Committee meeting with amendments. (Motion Brass, second Leinen)

Vote: for 16; against 0; abstain 0

796 Reports By Liaisons to PCOM

Reports were presented by the ODP Liaisons to PCOM.

B. Malfait from NSF gave an update on the NSF budget. Overall the 1989 NSF budget has increased by 9.8% (Appendix A). The 1990 overall NSF request has been cut by Congress from a 14% increase to about a 8% increase. This may shrink even more. Within the Ocean Sciences Division this translates into about a 4% increase in 1990. It will probably be September to October before the budget is finalized. NSF has funded the final increment of the Geoprops probe construction to Dan Karig. Two field programs have been funded: 1) New Jersey Shelf and Slope study by Miller and Christie-Blick and 2) joint funding with MG&G of a study of the Curacao Trench in the Southern Caribbean. The 1990 ODP Program Plan has been officially submitted. NSF is still concerned with the budget and has requested additional information from the program. Al Sutherland has left the NSF Division of Ocean Sciences to be Ocean Projects Manager of the NSF Division of Polar Programs.

Malfait discussed the time frame for ODP renewal (Appendix A). There is a heavy concentration on long-range planning. The main science document is the Long-Range Science Plan which is now being modified by JOI. The last COSOD was in 1987 and a new COSOD should occur in 1993. 1989-1990 is a critical time for beginning discussions with the international partners. 1990 will be a critical year for science and budget planning. 1992 is when the formal discussion of new MOUs will begin. The National Science Board will have a presentation in October 1989.

R. Duncan asked if there were any new developments regarding participation of the USSR in ODP. Malfait said that there has been no new developments. With the confirmation of Presidential Science Advisor Allan Bromley as head of the OSTP, there could be something new in several months.

T. Pyle from JOI discussed the present status of the FY90 Program Plan. NSF has withheld its approval pending additional information on: 1) the raises in salary; 2) how much money has been spent on technological development; 3) negotiation of the fee to Texas A&M Research Foundation.

T. Pyle reviewed the JOIDES response to the Performance Evaluation Committee and the National Science Board reviews of the program.

Responses have been made in the following areas:

Reorganizing the advisory structure on a thematic basis by: 1) deleting the regional panels; 2) emphasizing thematic panels; 3) splitting SOHP thematic panel into SGPP and OHP; 4) adding SMP service panel; and 5) revising and updating mandates.

Emphasizing timeliness of publications and need for thematic synthesis publications by: 1) providing funds for temporary copy editors in FY90 (SOE); 2) providing seed money for thematic publications in FY90 (SOE); and 3) adopting a new publications policy approved by PCOM emphasizing easier outside publication and faster publication of Parts A & B by revising post-cruise meeting schedule.

Criticism of JOI and the lines of communication have been addressed by: 1) providing a mandate for BCOM so that its purpose is not misunderstood; 2) clarifying the JOIDES chain-of-command; and 3) clarifying that JOI is sensitive to the international character of the program.

Coordination with other Earth Science programs has been proposed by: 1) Developing communications with the following groups: Arctic Ocean Drilling; National digital seismic networks (IRIS, POSEIDON, etc.); RIDGE, BRIDGE, FRIDGE; Global Sediment. Geol. Project (IUGS); Continental Drilling; WCRP-WOCE, JGOFS, etc. These should grow to be some sort of formal liaison. 2) Briefings of PCOM by such other programs as GSGP (partially; Miami PCOM), Arctic Ocean Drilling (Oslo PCOM); and RIDGE and Global Seismic Networks (this Seattle PCOM).

A review of ODP drilling answers the question of why there has not been more of the deeper drilling expected from COSOD I: 1) less deep drilling being proposed; 2) some objectives reached higher than expected; 3) some lithologies still causing drilling problems.

Advice on increasing "dues" has been ignored. ODP will seek more partners.

In addition, the JOI Board of Governors is considering increasing outside representation in the planning structure by proposing that 2 of 10 US members of PCOM be non-JOI representatives. Hayes asked if a decision had been made. Pyle said that the concept has been approved but not a plan. Brass asked what was broken that needed fixing. Pyle stated that the perception to PEC II was that the management level of ODP is a "closed shop". Apparently, one proposal before the JOI Board of Governors is that 2 of 10 US members of PCOM be non-JOIDES representatives. Kastner asked why 2 new members couldn't be added to the present 10. The MOUs state 10. The point was raised, that if a person is selected from outside JOIDES institutions, he or she to be effective as a planner must have had considerable experience in the JOIDES advisory structure or on board the *Challenger* or *Resolution*; therefore comments may continue about an "old boy - closed shop" system. This issue generated considerable discussion among PCOM members. Concerns were expressed about which JOIDES institutions would be left out and how the non-JOIDES members would be selected. Austin said that COSOD input gives outside direction to the program. M. Kastner suggested that PCOM members should take up this issue with their EXCOM members. M. Leinen said that a positive statement about outside participation should be made, but the negative consequences for planning should also be pointed out. M. Kastner suggested that a subcommittee prepare a resolution for PCOM approval; J. Austin, B. Tucholke, M. Kastner and G. Brass volunteered to do this. See later Minute 808.

The Long Range Planning Document has been turned over to JOI for additional work. There has been no written input from the critics. Non-US input on educational impact is needed. PCOM members had been asked and are being asked again to supply a list of what, in their opinion, have been the top ten scientific results of ODP. Some input on the benefits for industry achieved by ODP has been supplied by Ted Moore, Jim Franklin and Dave Falvey, additional information would be helpful. A brochure to accompany the LRP is also being prepared by JOI for laymen. The non-US partners may want to prepare a similar brochure to address their own particular concerns. The National Science Board will get a briefing 12 or 13 October.

Pyle gave an update on some of the other global geoscience initiatives with which ODP is attempting to form linkages. In the area of global seismology there are plans for a meeting of the joint JOI/IRIS steering committee in September in Washington. There are also plans for a joint JOI/IRIS proposal workshop for the scientific use of abandoned telephone cables sometime around January 1990. John Orcutt is currently at the IASPEI-FDSN meeting to talk about interaction with ODP. J. Delaney of the RIDGE program will be talking to PCOM at this meeting. The Global Sedimentary Geology Project has sent a favorable response. Continental Drilling presents several opportunities for interaction with ODP, including common use of the DOE Long Valley Caldera drillhole for high-temperature tests of ODP equipment. There is a tentative ad hoc meeting scheduled for October with interested DOE personnel to discuss slimhole drilling and high-temperature logging concerns. ODP has several representatives involved with the Nansen Arctic Drilling Program: Garry Brass on the science steering committee, Mike Storms on the technical committee, and Tom Pyle. Leonard Johnson is on the Executive Steering Committee. G. Brass and M. Leinen attended the workshop run by N. Pisiyas about linkages between the Global Climate Programs and ODP. M. Leinen is on the GOFs steering committee, which wants to make the best use of data from the drilling program. M. Kastner suggested interaction with the Ice Core Drilling Programs.

Other items brought up included: a reminder to send panel minutes to JOI; a reminder that ad hoc workshops at panel meetings should not be set up without prior consultation and approval from JOI; a RFP is being prepared for the Micropaleontology Reference Centers and should go out in a few months; advice on the use of the "seed money" for thematic publications is requested from PCOM and thematic panels.

L. Garrison gave the Science Operator report. Leg 127 ended at Pusan, Korea, several days prior to the PCOM meeting. Good science came out of the cruise, but there were considerable operational problems. At site 794 (J1b-1), which was to be reoccupied on Leg 128 for downhole OBS and Electrical Resistivity experiments, the pipe got stuck and the BHA was left in the hole. Since neither the proper fishing tool nor casing hanger was available onboard, Leg 127 did not spend additional time at this site. The schedule was rearranged to add 10 days to Leg 128 to prepare another hole. At site 795 (J1d-1) swelling of

clay prevented logging of the hole. Additionally, 131 joints of 5-inch pipe and the BHA were lost due to a cracked pin connector. A fire in a transformer blacked out the ship and resulted in the loss of dynamic positioning. At site 796 (J3b-1) caving of coarse sand beds prevented reaching the basement objectives, since there was a danger of losing the last BHA onboard. At site 797 (J1e-1), Leg 127 encountered extensive dikes and interbedded sediments and flows. Problems were encountered using the drilling packer. Successful logging runs were made. Further drilling to deepen this hole resulted in the loss of 34 joints of pipe and the BHA when the drill pipe cracked.

Iron losses in the Western Pacific since Leg 124 have included 10 BHAs and 2 big lengths of drill pipe. These losses are the result of a combination of problems, mainly friable volcanoclastic sediments caving in on the drillstring, and the corrosion and metal fatigue in the 5-year-old drillstring. The immediate solution has been to put the old drillpipe aside and use new premium pipe. In Singapore the old pipe will be taken off the vessel and given a more thorough examination than was done at Tokyo. ODP does not want to throw away this pipe, but it needs to be examined for cracks and other bad places. New drill pipe will be waiting in Singapore and other pipe is currently on order from a contractor in Japan and another bid request will be issued in a few months. If the losses are added up for Legs 124 to 127 about \$1M of equipment has been left on the bottom. This may delay the development of the 5-inch DCS capabilities. Drill collars are also getting to be in short-supply.

Garrison discussed the ODP operations schedule (Appendix B). The reason for the change in ports from Niigata to Pusan was twofold. First, the expense for the port calls in Japan was more than twice the average, Tokyo 1 around \$185K compared to the average of \$75K. Second was the problems caused by Japanese Customs laws, which resulted in time delays getting equipment to the vessel as well as additional cost.

Following Leg 128 the operations schedule has a 9-day transit from Pusan to Singapore, 2 days of preparation before a 10-day dry dock and then a 4-day port call in Singapore. Leg 129 follows a 10-day transit to Guam where the scientific party will come aboard. Drydocking is a requirement after five years of operations.

Because of the long transits from Guam and back to Guam and detailed planning at the pre-cruise meeting, the Ontong Java Leg has been increased to 62 days. Drilling plans made at the pre-cruise meeting indicated additional time was required to drill the four Neogene transect sites and the deep hole to basement. Austin said the site survey proponents wanted to know why the schedule was to drill the deep hole to basement first and then the Neogene transect sites. Austin asked if these changes were substantially different from what PCOM originally approved. Moberly said that as requested, CEPAC had put together two sets of proposals that included the deep basement and pre-Neogene objectives as well as the Neogene transect. Berger has also proposed

an alternate site. This discussion was taken up again later during the liaison report about the DMP meeting (Minute 797).

As mentioned previously, 10 days have been added to Leg 128 to accommodate drilling another hole at site 794. The schedule for Leg 128 is constrained by the two rendezvous with other vessels (Appendix B). The first rendezvous will be at JS-2 on 3 September, timed in relation to the UK experiments on biological activity in cores proposed by Parks and Craig. Cores will be transferred to the other vessel for transport to shore and then by air to the UK within 48 hours. The second rendezvous is the meeting with the Japanese seismic vessels at site 794 on 25 September.

A. Meyer discussed operations at TAMU. Cruise staffing is more or less complete through Leg 131 (Nankai). Staffing of Leg 133 (NE Australia Margin) will begin soon. Staffing of Legs 134 to 135 will begin the end of September. Offers to new staff scientists to replace Suzanne O'Connell and Andy Adamson as well as Elliott Taylor have been made. The new publications policy schedule is being applied to Legs 126 and 127. Leg 125 has also requested the two post-cruise meeting schedule, but is not holding to the 3.5-month post-cruise meeting timetable. Leg 126 will be the first to try the 12-month post-cruise publication time for the Initial Reports volume. It is still too early to decide if this new policy is working. Two editors can now be attached to a volume and therefore the time for editing an Initial Report volume will be cut to 10 weeks. von Rad asked what the present schedule for publication of the Initial Reports. Meyer said that it is around 15 months. Moberly asked that a schedule for publications be supplied to PCOM for future meetings, similar to the Engineering development schedules already supplied as a standard item. This way PCOM can keep track of any progress being made in speeding up publications.

R. Anderson gave the Wireline Logging Services report of the Borehole Research Group. He distributed a written report. Hole instability has been the biggest recent problem for the logging program. The SES would have allowed these holes to be logged if the BHAs had not been lost and prevented use of the SES. The use of salt muds and the SES have resulted in a substantially improved record for logging of holes. The SES is being redesigned to make it safer and more reliable, and the new design is scheduled for deployment in early 1990.

On Leg 127 at site 794 the Formation Microscanner (FMS) was successfully deployed. The FMS generates a large volume of information which gives dips of bedding and faults and can also be used to locate the depth and orientation of cores with respect to the drillhole. A new tool is needed for measuring the resistivity of cores, similar to one that has been built in the UK. SMP will be looking into this. The FMS is the first logging tool that goes into the drillhole. Cita and Moberly suggested that Roger Larson be briefed on the capabilities of the FMS for core orientation. Mevel asked how much time was required to use the FMS. Anderson said it is very fast,

measurements are taken at 1200 to 1600 feet per hour. New stress measurements have been made using both the Borehole Televiwer and the Formation Microscanner. Leinen asked what plans had been made to use the FMS on the Old Pacific Leg. Anderson said that current plans are for the FMS to be used in one hole.

A boron/tin sleeve has been developed to improve the geochemical logs. The wireline packer for fluid sampling has been bench tested at TAM and the new AMOCO pumps work. There continues to be a problem with the Calcium sensors which continue to fail after 24 hours of continuous work. New sensors are being ordered. The new temperature tool has produced good results. Tucholke wanted to know what was being done about downhole magnetics. Anderson said that because of problems with the susceptibility coil the University of Washington tool is not useful for basalts, but the new French high-resolution magnetometer licensed to Schlumberger will be tried. von Rad suggested that the Bosum magnetometer might be useful.

797 Reports By PCOM Liaisons

DMP

Liaison D. Cowan reported on the 23-24 May 1989 meeting. Cowan called PCOM's attention to DMP recommendations 89/9 to 89/13 in the DMP Minutes. Major DMP concerns that Cowan brought to the attention of PCOM are: need for high temperature logging tools; incompatibility between logging tools and the 4-inch hole of the DCS especially for high-temperature logging; the question if should PCOM specifically endorse the logging programs; and the failure of some Co-Chiefs to heed DMP logging plans at pre-cruise meetings. DMP spends considerable time developing a logging program for a leg and these recommendations are then sometimes ignored by both PCOM and at the pre-cruise meeting. Who adjudicates the differences between DMP and the Co-Chiefs? DMP has recommended that someone be hired to evaluate off-the-shelf high-temperature logging tools. DMP has also recommended a workshop on high-temperature logging tools. DMP has suggested that the Navidrill be tested at-sea on Leg 130 since it is required for the Geoprops probe.

Garrison said that the Navidrill is undergoing a major redesign and reconstruction that may take up to a year to complete. The present design, however, will make a hole for the Geoprops. Brass commented that DMP has formulated a third-party tool policy that was approved by PCOM and yet it has not seemingly been applied to Geoprops, especially the part about testing at sea before scheduling a tool's use on a leg. Tucholke reminded PCOM that Nankai is not predicated upon the use of Geoprops.

A discussion was held about the differences between Co-Chiefs and DMP over logging. This is part of a larger problem involving having more direct PCOM input into the pre-cruise meeting. Moberly said that the purpose of the advisory panels is to advise PCOM, it is PCOM's responsibility to integrate

these sets of advice into the larger program that may have competing objectives. A preliminary discussion about Yves Lancelot's letter was held but action was deferred until later (Minute 809). Hayes wanted to know how much autonomy the Co-Chiefs have in shaping the final drilling program plan. Brass said there is a clear need for liaisons from PCOM or the most involved thematic panel and in some cases DMP to attend the pre-cruise meeting where the prospectus is prepared. The problem arises when the Co-Chiefs are writing the cruise prospectus and have to cut out parts of the proposed program to fit within the time assigned to a leg, but do not have advice from the planning structure as to the relative importance of the various aspects. Garrison said that problems may also arise when programs are added to the schedule at a late date. This matter was taken up again in Minute 804.

The discussion once again turned to the question of the order of drilling sites on the Ontong Java Plateau and the location for the deep site. Moberly said that in part the problems arose because of the melding of two programs into one. The Co-Chiefs believe that drilling the deep site first gives all leg participants some material to work on during the leg, and any time gained could be used to deepen the last Neogene site into basement, but on the other hand, if time is lost, the coring and logging of the last Neogene site is jeopardized. Meyer said that it was difficult to make time estimates for drilling until the site surveys were completed. Austin and Kastner maintained that the site surveys on Ontong Java were mainly for a Neogene transect and would not have been funded for basement studies. Moberly pointed out that the Ontong Java Leg was approved at the Miami PCOM meeting from the 1988 CEPAC prospectus, thus including Neogene, pre-Neogene and basement objectives. Garrison asked how the Leg 103 prospectus departed from the program prepared by CEPDPG summarized in the Oslo PCOM Minutes. Austin and Kastner said it departs from the CEPAC plan by having the deep basement site drilled before the four Neogene sites. Kastner, Moberly and Tucholke stated their belief that the Neogene transect drilling probably represents the highest priority of PCOM. *[Note: because of the evident confusion expressed at times about Ontong Java during the Seattle PCOM meeting, the JOIDES Office has reviewed the various proposals, panel minutes, and PCOM minutes and tapes, and is sending with these minutes a summary history of the Ontong Java program during ODP]*

Moberly said that three points apparently need decisions: the order of drilling sites; a survey across the reentry basement site and on to the Neogene ones; and the location for the deep-slope Neogene site. The decision about the order can be made by PCOM or OHP. The location of the deep site OJP-3 vs. OJP-6 should be left to OHP. The survey will tie the various single-channel seismic lines in the area to the holes. Austin commented that the survey tie across the deep hole will be inadequate because the recent site surveys were planned only for the Neogene transect. Meyer discussed the draft drilling plans for Ontong Java (Appendix B). A motion on the order of drilling led to the following discussion.

Discussion

Mevel wanted to know if the Neogene transect was the only priority, since there are obviously some LITHP interests in the basement objectives. The high ranking by SOHP of the Neogene transect may have been the primary reason for scheduling this leg at Miami, but the fact that there was thematic interest in the pre-Neogene and basement also played a role in its acceptance. Cowan said that TECP had questioned if one hole was sufficient to say that basement had been sampled. Moberly said that 300 meters of penetration should be sufficient to establish attaining basement. To date only a few grams of basalt have been recovered from the basement on the Ontong Java Plateau, so any sample would be important.

Leinen wanted to know if Mayer and Berger are sure that the decision has to be either OJP-3 or OJP-6; or, couldn't there be all 5 Neogene sites? It was suggested that because of the time constraints, Mayer and Berger need to convince OHP about one or the other of these two sites. Tucholke wanted to know the time requirements for drilling the four Neogene sites vs. the deep basement site. Meyer said it would take 25.5 days to drill and log the four Neogene sites and 24.8 days to drill and log the deep basement site. The question was called:

PCOM Motion

1) The order of drilling for the Ontong Java Plateau Leg is first the 4 Neogene transect sites followed by the deep basement site; and 2) Decision about the placement of the deepest hole (OJP-3 vs. OJP-6) of the Neogene transect be based on the recommendation of OHP. (Motion Kastner, second Tucholke)

Vote: for 15; against 0; abstain 1

EXCOM & ODP Council

Moberly reported the 31 May- 1 June 1989 EXCOM and ODP Council Meeting. Principal results of importance to PCOM were excerpted in the Agenda Book and include:

- Adoption of the FY90 Program Plan and budget, with concerns discussed about Geochemical Reference Sites and about future program costs.
- Adoption of the Long-range Planning Document with some modifications to come, including a request for PCOM to reconsider the balance of scientific objectives.
- Extensive discussion of the likely incompatibility between the DCS and modern logging, a very troublesome situation.
- Reaffirmation that ODP is a global program driven by proposals that are thematically ranked.
- Adoption of the publications policy forwarded by PCOM, with the exception of the section on details.

- Expression of exceptional concern about both major aspects of the question of radio-isotopes on board the drill ship: the importance of involving new areas of science in the program, and the reluctance to allow possible contamination of the vessel.
- Approval of the mandate changes proposed. EXCOM also asked PCOM to have a general statement on membership where not already present in mandates.
- Decision that no action was needed by EXCOM about the present method whereby ODP-TAMU selects Co-Chief Scientists for drilling legs.

Discussion

von Rad wanted to know why Publication Policy Part C was not approved. Moberly said EXCOM thought some of the recommendations could be implemented by the Science Operator immediately without waiting for IHP to advise PCOM (for example, starting the copyright negotiations with journals). The advice on policy still comes from the advisory panels.

The matter of balance of scientific objectives in the LRP was discussed. Malpas suggested that a short section could discuss the reason for the balance of the plan. Pyle said one concern was that a hard-rock program would not be as interesting to industry. Brass said the balance was cognizant of the level of achievement at the time it was written and where the opportunities will be in the future. Further discussion produced no reason to change the balance and the PCOM position can be stated as below.

PCOM Consensus

Because the Long Range Planning Document is a general assessment of the research areas where scientific advancement is achievable by drilling, and not a specific drilling plan, the balance of drilling opportunities does not require revision. The balance of actual drilling will be determined by the drilling proposals received and the thematic priorities that evolve as science and technology advance.

SRDPG

M. Langseth attended the 13-15 June SRDPG Meeting and his mailed comments were in the Agenda Book. M. Leinen distributed copies of the draft report supplied by R. Detrick. The DPG was viewed as highly successful, and will provide us good information at our November meeting.

SGPP

Kastner reported on the 19-20 July 1989 SGPP meeting. The meeting was primarily to write a new white paper and examine the panel's mandate. Copies of the draft minutes and the white paper were distributed. Kastner wanted it emphasized that liaisons from the other thematic panels need to attend these meetings. The highest priority technological development needs are for: sediment recovery and fluid sampling, and deep penetration of sandy

sediments. A subcommittee of SGPP is to establish how pore waters and gases should be sampled to meet the thematic requirements. Because some important thematic objectives require radioisotope experiments onboard the ship, SGPP is going to prepare a paper on these requirements.

PPSP

Moberly reported on the 25-26 July 1989 meeting of PPSP. At the meeting the following were approved: all remaining sites of the Nankai traverse; all newly surveyed sites for Old Pacific (the remaining two to be decided by M. Ball and L. Garrison); the 5 proposed Ontong Java Plateau sites; and, as a favor to NSF, two non-ODP shallow sites on the Bahama Banks. PPSP also reviewed the geochemistry of all petroleum shows in DSDP-ODP, received information about probable drilling conditions at high-temperature targets, and indicated a need for back-up expertise in petroleum geochemistry.

Of great importance to future planning: PPSP reviewed the Exmouth Plateau operations, including their own role in having approved Site 763, with implications against future "twinning" of industry holes or indeed against riserless drilling in known petroleum basins, especially ones with thick syn-rift or early post-rift Mesozoic sections. Brass was concerned that drilling on margins such as Brazil may have a risk associated with them. Garrison said that the goal of PPSP is to keep that risk as low as possible.

798 Reconsideration of FY90 Program and Geochemical Reference Leg

[For reasons that should become evident to the reader, Minute 798 is recorded in more detail than is a typical minute. In places, the order of speakers is given differently here than their actual order, to group respondents to topics that were raised, as PCOM commonly skipped from topic to topic and back again.]

Moberly explained that since the Oslo meeting, the JOIDES Office has received numerous spoken and written communications about removal of the Geochemical Reference Sites leg from the FY90 Program Plan. The range of comments is shown in the set of letters in the Agenda Book. Some complaints are more justified than others, perhaps depending on which rumors were intercepted, for example, an Atolls and Guyots leg was not "removed" from a Program Plan that never included it, and as PCOM has not met since Oslo, PCOM cannot be "stonewalling". These letters were answered, but the answers were not included in the Agenda Book. Most answers were similar to the one to Bob Detrick (copies already sent to PCOM).

There appear to be two issues, here posed as questions. One is the decision itself: with due consideration to real and imagined factors including thematic worth, status of other planning, logistics, weather, and alternatives, *should PCOM reinstate a geochemical reference leg in the FY90 Program Plan?*

The second is the decision-making process: In the thematic panels, DPGs, and PCOM itself, and with respect to rankings, transfer of information, and record keeping, *how can PCOM improve procedures to prevent in the future whatever real (and imagined) faults there were in this planning process?*

Malpas suggested that the decision was the result of political and regional constraints placed on PCOM. In a proposal-driven program with drilling prioritized by themes, themes need to be ranked as well. Panels should put proposals together in thematic areas. If LITHP had put together a solid thematic program for Geochemical Reference then it would have fared better in the transition from WESTPAC to CEPAC drilling as well as the transition from regional to thematic drilling programs. Brass pointed out that from time to time in ODP, PCOM had been concerned with consideration of themes, for example, how many accretionary prisms around the world would we drill?, but had always had to consider priorities of its regional panels while it was in a regional mode. Malpas said that the decision-making process is not working properly at the PCOM level. The Geochemical Reference Leg was removed without any prior notice or chance for LITHP to have any input into the decision. The prior PCOM motion accepting the Geochemical Reference Leg was overturned, not based on scientific rationale, but for political reasons. PCOM did not discuss the matter with the main people or panels who would have been concerned with the decision.

Austin observed that part of the problem is that there is a perception that the program is going to end if the ship does not appear in the Atlantic. If the program were known to be continuing through 1998, then there would be time to do the important thematic drilling in the various areas.

Discussion turned to ways to improve the process. Moberly said that the basic step to avoid future misunderstandings is to get a common system of ranking proposals and drilling programs. Once prioritized lists of programs are available from panels, PCOM can take the lead for long-range planning. Malpas suggested that the panels may have to go beyond unsolicited proposals to writing their own proposals to cover important themes. Austin thought that proponents of proposals of high thematic interest should be placed on the panels. Cita wondered if there is a good plan and sufficient proposals to carry drilling through to the end of the century. Garrison said that regardless of a set of high thematically ranked proposals, they would have to be superimposed on an ocean-to-ocean scheduling. Otherwise, the ship could spend all of its time drilling high priority objectives in only one ocean. Moberly said that in April of each year we would take the weight of what our various panels tell us, and decide what proportion of time to spend in what ocean over the next four years. Each spring we would be able to reevaluate the next four years. Lienen supported Moberly's proposal of how to decide where the ship should go. Continuing, she agreed with Malpas's contention that panels may have to hustle to get good proposals that address their themes, but that unsolicited ones are important, too. From her experience on the Lithosphere Panel, geochemical reference was not on the panel's list of top problems 5 years ago. It took Langmuir and company's unsolicited proposal to move the theme into the system. Malpas suggested that if LITHP or a DPG had taken the geochemical reference proposal, hustled, and used it as a basis to put together a solid global program of

geochemical reference drilling, then it would have looked better to PCOM because the science would hold together better, and it would have fared better. Where necessary, good unsolicited proposals should be taken and put into context by the panels.

Brass said that some concession may have to be made to some regional drilling by doing the high-ranking drilling clustered in one region, then transit to another region to do other high-ranking proposals that are close together there. Kastner thought that should be stopped if it includes some second-rate priority science just because of logistics. She was supported by Austin; transits may be necessary. Kastner suggested that thematic panels should publish their important themes in EOS, which she thought would have wider distribution among those interested in drilling than JOIDES Journal. That would draw proposals to important themes. Mevel said LITHP had just done so.

Moberly asked again if PCOM could suggest ways other than what he proposed to the thematic chairs for the rankings of programs and reporting to PCOM. There were none, and so the thematic panels will be so notified.

Anderson suggested that the future agenda briefing books contain a single-page matrix of the rankings of the four panels, to aid PCOM memory. Moberly said that such lists or matrix should be in every April's book. Watkins thought that basically the decision-making process was fair, and that the idea of something in writing is good, so we do not lose track of the history.

PCOM turned to the second part of the agenda item, specifically the Geochemical Reference leg. Watkins suggested that after 20 or so legs with no major objections, having one leg decision that raised great objections is not a bad record overall. Austin said that the change in success was partly due to going from the mode of a regional prospectus to a thematic mode. Malpas objected strongly to the decision-making process in this particular case in which there was no prior notice to anyone on LITHP. The motion could have been tabled, and then handled by phone after LITHP could respond. He believed that the previous motion was overturned because one person, new to this Planning Committee, made a strong argument for the change[*]. The overturning of the schedule was without a scientific discussion, and that is what has raised such concern among LITHP members and elsewhere in the community. Kastner suggested that PCOM should admit that a mistake in the process occurred at Oslo and that Geochemical Reference should be reinstated into the FY90 Program. She moved to accomplish this, leading to the following discussion.

Discussion

Cowan said that PCOM was entitled to reverse the Miami decision, for the purpose of keeping to the schedule of preparing for drilling on the EPR and at 504B. As for the repeated comments about lack of scientific advice, it is

unreasonable to have all proponents and chairs of all thematic panels present at all PCOM meetings; we have to make do with the people in the room.

Malpas said that the science of the Geochemical Reference Leg had been extensively discussed at previous meetings and the decision was made to include it at Miami. At Oslo, Old Pacific and Geochemical Reference were unfairly compared. Austin said that at Miami, Detrick made a good case presenting the scientific justification for a geochemical reference leg. Mevel said that Geochemical Reference suffered from being considered as part of CEPAC, rather than WESTPAC where it was LITHP's highest priority.

Cita expressed her concern earlier, that because the drilling program is a strong program with a strong structure, we should not weaken it by undue discussion of a wrong decision which may not be wrong at all. She compared the superiority in planning of ODP with another major oceanographic program, and stressed the importance of good will in keeping the drilling program strong.

Mevel said that the effects of reinserting Geochemical Reference on the FY90 schedule have to be discussed before any vote.

Kastner said that Oslo we received the erroneous information that this leg was never of high priority of any thematic panel[*]. Watkins said that according to his notes, all of the legs were looked at in Oslo. Moreover, it was established at Oslo that there were more legs than can be accommodated in FY90 and still get to the EPR early in 1991. Moberly reviewed that at Oslo, in order to delay Nankai and the second engineering leg, it was initially proposed to insert two legs from the western part of the Central Pacific that were advanced as to thematic interest and existing and planned surveys. PCOM chose to keep the same length of time before transiting to the eastern Pacific by removing two legs from the expanded slate, one of which had already been scheduled. Brass said that an important point was that at Oslo we had a change in the Old Pacific ranking by OHP, which was now favorable. SOHP had always said they would favor the program if surveys could show a chance to get to basement.

Hayes said that he gathered from the many letters that the decision at Oslo apparently was flawed by misinformation that Geochemical Reference did not have high thematic ranking. Moberly said it was ranked by one thematic panel. Kastner said that was not specifically what was said at the Oslo meeting [*]; it was stated as being way down on the WPAC list. Moberly said that it was, and asked how a true statement could be called misinformation; anyone having additional or different information should have brought it forward. Kastner said that for some time it had been the highest priority leg LITHP had in the Western Pacific[*]. Tucholke and Austin agreed.

Anderson thought that this situation could be more likely as ODP moves into a thematic mode, suggested better documentation for such decisions in the future. Moberly said that at the request of Kastner for a more complete

record about the Oslo decision, the tapes had been examined carefully and the Oslo minutes have no insertions or important deletions[*]. The tapes can't pick up the nodding or shaking of heads or what is on the board. Garrison pointed out that the issue was to get to 504B and the EPR sooner, and that people had made the comparison between those Eastern Pacific programs and Geochemical References. Austin stated that the best place to plan schedules is at the Annual Meetings, where the panel chairmen are present. Hayes wondered if it was proper to compare regions, CEPAC and WPAC. Brass reminded PCOM that that the PCOM decision came from working backwards from when it needed to be in the eastern Pacific, to prepare for the highest priority LITHP drilling at 504B and the EPR as soon as possible in 1991, for the long-desired second leg on EPR before the possible end of the project in 1993. Hayes said that a method is needed to merge the priorities of different thematic panels. Did PCOM at Oslo have a comparison by LITHP of eastern and western Pacific? Was that part of the misinformation? Moberly said that he had given the WPAC panel's ranking and its list of the thematic panel rankings. [It was others who had made such comparisons about EPR and 504B; see Oslo minutes*]. Malpas said that this decision on how to merge priorities should have been made at the time that PCOM decided to go to a global thematic program. At Miami the decision was to include the Geochemical Reference Leg as part of the Western Pacific program.

Jenkyns wanted to know when Geochemical Reference would be inserted into the program if it were reinstated, since this affects how participating scientists arrange their schedules. Garrison presented two possible scenarios, Leinen noted that the result of either of them would be the delay of getting to the EPR and 504B until April 1991 rather than January which had been the intention of PCOM at both the Miami and Oslo meetings. The question was called:

PCOM Motion

Reinsert the Geochemical Reference leg in the FY90 drilling schedule.
(Motion Kastner, second Malpas)

Vote: for 7; against 7; abstain 2 (Failed)

Malpas then moved to replace the Old Pacific Leg with the Geochemical Reference Leg as this would not delay the schedule any more than it had already been.

Tucholke said that the effect of this substitution would be the same as what happened at Oslo. Cowan said that PCOM should admit damage was done, but it still remains that the science in the Old Pacific program is the better of the two.

PCOM Motion

Replace the Old Pacific leg with the Geochemical Reference leg in the FY90 drilling schedule. (Motion Malpas, second Kastner)

Vote: for 1; against 12; abstain 3 (Failed)

[* Later note back in JOIDES Office: as yet we are unable to find a record of its highest priority in the LITHP minutes, e.g. Strasbourg August 1985, plan for crustal evolution of arcs and back-arcs, 12 Mariana and 11 Bonin sites, none east of the forearc. College Station January 1986, 4-leg transects should extend from center of back-arc spreading across arc to undisturbed plate. Seattle April 1986, A minimum of 5 legs to meet LITHP's thematic objectives in the Western Pacific area, unranked but listed in this order are: 2 legs Mariana/Bonin forearc, 1 leg each Lau Basin, Japan Sea, and reference holes into basement east of Bonin-Mariana trenches. Corvallis July 1986, support of WPAC's Mariana, Bonin, and Japan Sea legs, but concern about Lau Basin slipping in WPAC's ranking, and WPAC's list of only one non-reentry Bonin site for reference; LITHP says Bonin 8 merits at least one-half a leg. London January 1987, LITHP's highest priorities are Bonin I, Lau Basin, Bonin II-Mariana, and Japan Sea; a further paragraph is that LITHP strongly endorses the Langmuir-Natland proposal for 6 geochemical reference holes (proposal received in JOIDES Office December 1986). Palisades May 1987, LITHP noted the most serious omission in proposed Western Pacific drilling is the absence of a viable reference-hole program, which has been one of LITHP's top priorities in the area; no ranking. Paris September 1987, there is no ranking of all drilling, but in response to a questions from PCOM about 4 specific programs, , LITHP said that in terms of an extra one-half leg, reference-hole drilling and forearc-diapir drilling are higher priorities than an evaluation of Mississippi Valley-type ore genesis off Australia. Annual Report 1987, the top 6 CEPAC programs are ranked but not WESPAC; again the statement of the serious omission of 1 1/2 legs of reference hole drilling. Honolulu March 1988, extensive discussion but no ranking. Corner Brook September 1988, discussion of a one-leg program; no specific rankings. Miami Annual Meeting November 1988, termed high thematic ranking but no specific rankings. Is termed a part of the Bonin-Mariana drilling, which has had 2 DSDP legs and will have 2 ODP legs; presentation of a proposed 3-hole, >1-leg program. In the tapes Bob Detrick termed the program "a very high part of our Western Pacific drilling". In conclusion, there is no doubt that geochemical reference drilling is of high importance to LITHP; just how high a rank or priority is unknown, except there is no evidence that it was highest. In the "regional mode", it was ranked very low by WPAC.

The Oslo tapes have also been reviewed. The principal part left out of the minutes was the extensive discussion of possible routings and legs during the part of the meeting in which it was proposed to have both Old Pacific and Geochemical Reference in the FY90 program. The pros and cons of the potential results of the straw-vote called for by Eldholm were clearly stated both before and after that vote (and which led to the Brass-Langseth motion for a rescheduling), namely that in effect it would be a substitution of one leg for another, substitution of one theme for another, that there would be long transits, but that it could preserve weather windows and would allow an early transit east across the Pacific. No single person gave a strong argument one way or the other; most of the stronger arguments had to do with moving the vessel rather than leg substitution. The presentation of rankings of WPAC legs by Moberly was as they were given in the 1987 WPAC prospectus. Twice he asked if others, perhaps watchdogs, had more recent information. Moberly sees now that it was not strictly correct to have said that LITHP ranked Geochemical Reference at the bottom of its thematic list for WPAC as a leg in 8th place, whereas he should have been said it was listed below the LITHP themes of the WPAC programs that would take about 7 legs to drill. Pisiias said he didn't think it was last, but that it was ranked low. There were no other comments or corrections about that LITHP priority or next about Moberly's presentation of no ranking at all by the other two thematic panels or the regional one. There was support but no objection to Moberly's statements about high thematic priority of Old Pacific by SOHP and TECP. Only two persons spoke about the potential adverse consequences of the Brass-Langseth motion, namely Tucholke and Moberly.]

PCOM next discussed the Nankai Leg. One problem involves the concern of the Borehole Research Group about the first deployment of the wireline

packer on this leg in a bare hole environment. Taira suggested that the first deployment should be in pre-perforated casing. R. Anderson said that BRG would have no problem with that first deployment.

Tucholke wanted to know what PCOM's position would be on which holes should be drilled at Nankai. At Miami, specific sites were given (NKT-10 & -1) but the leg has changed now. Should PCOM leave flexibility or make specific recommendations? Taira said that the drilling will depend on whether Geoprops is used or not.

Wednesday, 23 August 1989

Taira presented the options for Nankai drilling (Appendix C). There are both deep and shallow objectives at Nankai. Sampling and measurements at the deep décollement are the main science objective of the drilling. The décollement is fully developed at NKT-2 but is only incipient at NKT-10. DMP prefers NKT-10 while Taira prefers NKT-2. Taira suggests that the best choice is to use the four-hole-per-site concept at sites NKT-2 and NKT-1. The order of drilling might be different if a two-leg Nankai program were assured, to give both the horizontal and vertical gradient of properties. Only one leg is on the program. Tucholke agreed that the very best science will come out of drilling the décollement at site NKT-2 and the leg should not be planned on the basis of having the Geoprops tool available.

PCOM Consensus

The initial ODP leg of drilling at Nankai will be at sites NKT-2 and NKT-1.

799 Engineering and Technical Developments

L. Garrison discussed the engineering and technical developments at ODP-TAMU that were included in the handout distributed at the meeting. Developments discussed included: Diamond Coring System (DCS), Navidrill Core Barrel (NCB), Extended Core Barrel (XCB), Sonic Core Monitor (SCM), Advanced Piston Corer (APC), Drilling and Straddle Packers, Side Entry Sub (SES), Pressure Core Sampler (PCS), Vibra-Permissive Coring (VPC), and High Temperature Drilling. Special note was made that the second generation NCB can be used to deploy the Geoprops tool; it makes a hole but does not recover core. Further information will be provided at the next PCOM meeting on this tool. The concerns about the first deployment of the wireline packer have been mentioned previously. There is a low chance of not being able to retrieve the packer even if it doesn't deflate. It can be used in an open hole on the current leg. The PCB was identified by Kastner as an important tool that has been promised for some time. She suggested that SGPP be asked to identify the important scientific needs for this tool and make recommendations about the types of measurements that need to be made in the Phase II chamber. These recommendations will be sent to SMP for their specifications so that TAMU can proceed with development. PCOM needs to set some priorities for the development of this tool. JOIDES Office will

contact the panel chairs; von Rad will see that SGPP considers this matter, while Leinen will see that SMP is also aware of the need.

R. Anderson discussed the implications for logging if the 4-inch hole DCS is used extensively in ODP. Logging tools are technologically advanced and use industry designs. The major problem is that the 4-inch DCS hole is incompatible with the modern logging-tool suite. The tools available for use in the 4-inch hole are generally not designed for high pressures or high temperatures. If the Schlumberger HEL logging tools are used, modern geochemical and geophysical logging data cannot be attained. The problem of repackaging the present suite of tools for a smaller hole is that dewaring them for high temperatures makes them too big for the 4-inch hole. A possible solution, which has been used by the oil industry, is to cool the hole by circulation of drilling fluids. With a small-diameter hot hole, however, there is not enough of a heat sink to keep the temperatures from quickly rebounding and the hole can only be cooled 20%. This has led to a box for the logging of small-diameter holes. The loggers suggest that the only way out of the box is to make bigger holes by: deploying a larger diameter DCS on the ship; reaming of the smaller diameter hole to a larger diameter (however, the problems peculiar to reaming usually results in loss of 50% of the holes); or drilling two adjacent holes, one for core recovery and the other for logging. BRG recommends the third option. The BRG will then use those tools available to log the DCS slimhole and run the modern logging tool suite in the regular-size non-cored hole.

Cowan wanted to know what losing 50% of the holes meant. Anderson said the hole is lost for other purposes half the time. Brass wanted to know if the higher recovery possible with the DCS would eliminate the problem of not being able to use the geochemical and other high tech tools. Anderson said that a lot of geophysical measurements including VSP must be made in the holes. The modern logging tools give a lot of information that cannot be gained from core alone. Malpas and Brass were concerned that the purpose of the small diameter DCS, to recover core where it is not now possible, is also in danger of being overlooked. PCOM evaluated the three options for making the DCS compatible with the modern logging suite. 1) Deploy a DCS that cores a hole greater than 5 inches. 2) Ream the 4-inch DCS hole to one compatible with logging tools. 3) Drill a second hole without coring next to the DCS slimhole. At the present stage of DCS development, PCOM did not see any purpose in locking in to option #1. Brass suggested that it would be useful for ODP to develop tools to use in slimholes, but it might not be practical under the present budget. Therefore, the BRG should not be required to develop an advanced slimhole logging capability. Garrison suggested that option #2 reaming is not very desirable if you lose half of the holes. Hayes and Brass suggested that the ability to accommodate the logging technology should be a PCOM commitment. Moberly said that the Third Engineering Leg may be an appropriate time to test reaming of the 4-inch DCS hole. Garrison said that land testing of the DCS will also look at reaming.

Hayes asked and Moberly agreed that the minutes should reflect that all the options are to be considered by ODP-TAMU to accommodate logging.

PCOM Consensus

The Borehole Research Group is not obligated to develop a suite of advanced logging tools for slim holes drilled with the Diamond Coring System.

PCOM Motion

TAMU shall develop the capability to run the Borehole Research Group suite of logging tools at sites drilled with the Diamond Coring System.

(Motion Brass, second Malpas)

Vote: for 16; against 0; abstain 0

800 Second Engineering Development Leg

PCOM has approved a Second Engineering Development Leg for the FY90 schedule. It will be a joint science-engineering leg to test developments aimed at bettering the drilling and recovery of chert-chalk sequences, reefal limestones, and young brittle crust. The JOIDES structure has been asked to find appropriate sites at Shatsky Rise, M.I.T. Guyot, and in the Mariana or Bonin back-arc area, as well as provide appropriate advice on a scientific Co-Chief and other staffing. The science operator has assigned 56 days for this leg, which with transit will give about 3 weeks of operations at each site. D. Rea, S. Schlanger and J. Natland have been asked to provide specific site advice. A prospectus will be prepared by the next PCOM meeting.

Kastner wanted to know if a Scientist Co-Chief had been named. Moberly said that the JOIDES Office has had no answers to the request of panels for site information and Co-Chief and participant nominations; the Office will keep trying. Garrison said that since the leg was an engineering test that may not produce much science, the approach at TAMU will be to have lead scientists invited to participate. Kastner said that the decision at Oslo was to name a Scientist Co-Chief as well, to help ensure success of the legs. Meyer said that there was a concern that naming one of the three lead scientists as Co-Chief might cause problems. Leinen said that Co-Chiefs are named on the science legs where there are multiple science objectives. Garrison said there is also the concern that the Scientist Co-Chief will have his own program that would conflict with the engineering development tests. TAMU wants the engineer in charge of the tests. Leinen said that since there is going to be a prospectus there should be no problem in having different objectives. Kastner said that PCOM had considered this at Oslo and thought it best that there also be a Scientist Co-Chief on these legs. Austin said this was the reason it was suggested that the Scientist Co-Chief be someone who was interested in the successful development of the system undergoing tests. Cita suggested that Jim Natland would be an appropriate choice. Tucholke suggested Jerry Winterer, but he might not be available. By acclamation PCOM agreed that

Jim Natland should be asked to serve as the Scientist Co-Chief on the Second Engineering Development Leg. It was also suggested that rather than having a formal watchdog that M. Langseth, who is the PCOM liaison to TAMU, continue his involvement and watch after the leg.

801 Status of Scientific Recommendations

Thematic Basis The JOIDES Office was asked by EXCOM to prepare a detailed table showing the degree to which COSOD I objectives (major as well as minor objectives) have been met in ODP to date. When finished it will also be distributed to PCOM and the panel chairs.

A draft of the White Paper of the Tectonics Panel has been received (version edited for JOIDES Journal was attached to the Agenda Book). The LITHP and SOHP White Papers have been published, and were part of the basis for the Long Range Plan. SGPP is revising its part of the SOHP document and a first draft was distributed to PCOM.

Proposals The rate of receipt of new and revised proposals has increased slightly. Recent ones are no longer overwhelmingly Pacific. A set of summaries of proposals received by the JOIDES Office since the meeting in Oslo was attached to the Agenda Book. Several new Atlantic proposals have arrived. There also have been proposals for work off Australia. Advertisements soliciting proposals were placed in EOS and the JOIDES Journal. A direct-mail solicitation of new and revised proposals was sent to the "contact" proponent of all proposals received by ODP before this fiscal year.

802 Preparation for One-year and Four-year Planning

At Oslo PCOM decided that the FY91 Program Plan would be selected from among certain eastern Pacific programs. PCOM should become familiar with the scientific objectives and the maturity of these programs. The CEPAC prospectus (mailed separately to PCOM) will aid the discussions which were led by the PCOM watchdogs. Watchdogs should be sure the items are covered that are on the watchdog form that was distributed in Oslo.

Cascadia Accretionary Prism (D. Cowan) Hyndman will conduct a MCS survey of the slope, margin and accretionary prism of the northern part in late August. The work will also cover the Middle Valley section of the ridge. Oregon will be starting their work in September. Canada also plans high-resolution side-scan surveys in 1990. There was an early review of Cascadia by DMP. Realistic time requirements are needed. The present program appears overly optimistic and may require fewer holes and more measurements.

Chile Triple Junction (R. Moberly) This is currently a single leg proposal, but the proponents and TECP will examine to see if a 2-leg program, as suggested by TECP, can be made. All important MCS lines will be ready for examination

at the next TECP meeting. (Kastner asked that SGPP get this as well.) J. Austin volunteered to be the new watchdog for this program.

Eastern Equatorial Pacific Neogene Transects (M. Leinen) The site survey cruise is underway. Specific sites will be chosen after the survey work is complete.

East Pacific Rise Bare-rock Drilling (G. Brass) There have been no new developments since Oslo meeting. A revised French proposal has not arrived at the JOIDES Office. There will be a cruise in November to look for hydrothermal activity. Garrison said that sites will need to be chosen so that the HRGB can be placed on the third engineering leg.

Hydrothermal Processes at Sedimented Ridges (M. Kastner) M. Langseth has submitted a report of the DPG meeting. Two legs have been proposed and the DPG recommended that they be about one year apart. There was a concern that drilling in the Gulf of California, Guaymas Basin had been removed by the DPG from serious consideration for drilling because of potential clearance problems. This type of decision should not be taken by the panels.

Lower Crust at Site 504-B (J. Malpas) Hangups have not been at casing joints. Massaging of the VSP data suggests that the transition could be 350 meters closer than previously estimated. There are also some interesting dipping reflectors. R. Anderson reminded PCOM that the fluids in the hole at 504B should be sampled before any of the Engineering operations begin. It would be a shame to lose this valuable information, so plans need to be made accordingly.

Remainder of CEPAC Set of Programs (Former prospectus, less Cascadia, et al. above, and less scheduled Old Pacific and Ontong Java legs). These and others will be considered next April. Some are revised in the new CEPAC Prospectus.

Atolls and Guyots (B. Tucholke) There are two mature proposals. The thematic panels need to rank them and recommend either a 1-leg or 2-leg program. There are concerns for all 4 thematic panels in these proposals since they deal with the mid-Cretaceous atoll drowning, hotspot swells, and other topics.

Bering Sea History (J. Watkins) Nothing new to report.

Hawaii Flexure (J. Malpas) The dating resolution problem has not been settled. Mass wasting may also be a problem. Brass and Leinen said that the thematic panels need to answer the question of whether or not the dating resolution can answer the objectives of this proposed drilling or not. This needs to be done by Spring if it is to continue being considered by PCOM.

North Pacific Neogene (J. Watkins) Nothing reported.

Shatsky Rise (H. Jenkyns) This program requires good recovery to be successful. Engineering II will address the recovery problem. If Engineering II is successful, a future Shatsky program would not necessarily be a full leg of

drilling. There are at present no basement objectives, and so a proposal will be necessary to justify drilling basement.

Young Hotspots: Loihi (R. Moberly) No changes to report. Drilling would probably encounter high-temperatures and require high-temperature logging tools. One or two bare-rock guidebases would also be required. A hole for a tele-seismic observatory would not be appropriate here.

Additional Programs. Several proposals of apparently high promise will also be considered next April. These include ones that for one reason or other could not be included in the first circumnavigation of the *Resolution*, as identified by the former regional panels, as well as new ones. For example, attached to the Agenda Book are 1) lists of proposals of the 1988 era that have moved on to SSP consideration, 2) seven leg-length programs remaining from WPAC (including Geochemical Reference), and 3) the list from J. Austin of proposals and programs that were highly considered by ARP. SOP and IOP did not respond to PCOM's request. The individual members of these two panels, and Co-Chiefs of legs drilled in the Southern and Indian Oceans will be contacted and asked to identify high priority leftovers.

Watchdogs were assigned to the following targets recommended by WESTPAC:

G. Brass	Banda Sea and South China Sea Basins
M. Kastner	Geochemical Reference Sites
D. Cowan	Nankai II
A. Taira	South China Margin
M. Langseth	Valu Fa Ridge
R. Duncan	Vanuatu Back-Arc Rifts
J. Malpas	Zenisu Ridge

Process of setting priorities. The chairmen of the thematic panels were told that there must be a common inter-panel scheme for reporting priorities to PCOM. They were provided a rather long-winded but (we hoped) complete draft set of working definitions and procedures (please see copy in your attachments), and asked to comment on the draft method of setting and listing priorities. The only two respondents are in favor of the draft method,

Essentially, the proposed method is: Each year before the spring PCOM meeting, each thematic panel would send to PCOM a single priority list of programs, with *program* defined as one or more actual proposals addressing a published theme in a specific locality, and with a good likelihood for operational success, in terms of the status of such factors as site surveys, engineering developments, and safety. PCOM agreed that the proposed method was acceptable but wanted details from the panels of how the ranking was produced. Panel inclusion of a brief paragraph of the rationale and underpinning for each decision will give PCOM less likelihood of misunderstanding the rankings.

Malpas suggested that the thematic panels and perhaps DPGs should either solicit proposals in areas of high thematic interest or write their own. Brass said that JOIDES walks a narrow line in terms of its image of being an open or closed shop. As individual scientists we write our own proposals and for the sake of efficiency it may sometimes be necessary for panels to write proposals. Leinen said that the unsolicited proposals will remain the major source of new proposals. PCOM agreed that thematic panels may write proposals for high-ranking themes that otherwise do not have appropriate proposals or that have proposals that are either too broad or too narrow.

803 Reports of Recent Drilling Legs

Leg 124 Southeast Asian Basins

Co-Chief Scientist Eli Silver described the results of Leg 124. Its goals were to compare the evolution of a set of 4 small adjacent basins. For political reasons two of them, Banda and South China, were not drilled. The Science Operator has presented a summary of results. Points here stressed by Silver were that new stratigraphic information about the Celebes and Sulu basins gives a record of volcanic activity, changing paleoceanographic conditions, collision events, and timing of trench formation. The direction and magnitude of stress within the basins was an important discovery.

The Sulu Sea Basin seems to have formed in an intra-arc environment. The Celebes Sea Basin formed in the open ocean, with low sedimentation rates for the first 20 my. The oldest sediments on basaltic basement are deep-sea and similar to red clays, with fairly low sedimentation rates. Comparisons were made by Jenkyns to Mesozoic ophiolites, covered by lime-free sediments, and by Brass and Leinen to present-day red clays, of much slower rates of sedimentation. It was regretted there was no clearance for a shallow hole in the eastern South China Sea.

Leg 125 Bonin and Mariana Forearcs

Co-Chief Scientist Patty Fryer described the goals and results of Leg 125. Part was to determine the physical nature and geochemical processes in serpentinite diapirs of the Mariana forearc and the basement of the Bonin forearc. Unusual pore waters were recovered in the diapirs, i.e., high pH , Mg-depleted, and with exceptionally high chlorinities and salinities. Aragonite crystals and hydrocarbons higher than methane were also unusual. The interpretation is that the present fluids come from the dehydration of the serpentinites, but that the ultimate source of those fluids is the sediments that were subducted. The striking feature of the petrology and major-element geochemistry of the Bonin forearc is the interlayering of island-arc boninites and dacites.

Cowan asked if the low recovery compromised the results. Recovery in the diapir summit holes was low, but was higher in the flank holes. There were

many comments about the unusual geochemistry of the fluids, and PCOM awaits the post-cruise work.

Leg 126 Bonin Forearc

Co-Chief Scientist Brian Taylor summarized the results of Leg 126. Drilling showed the general structural and magmatic history from the initial rifting through the development of the present arc to the beginning of the next cycle of back-arc rifting. The Izu-Bonin arc formed in mid-Eocene time. The deep forearc basin formed rapidly in the mid-Oligocene and filled rapidly with turbidites. The Shikoku back-arc spreading commenced about 25 MA and continued for about 10 my. Since the late Pliocene a new rift has started. Back-arc basin basalts were produced within 1 my of the stretching.

PCOM was impressed with the lull in volcanism. Deep erosion of part of the forearc down submarine canyons, combined with the lull in volcanism, suggest that mass balance calculations may be difficult. PCOM also noted the high resolution of paleomagnetism from the high sedimentation rates, the results of logging, heat flow, and VSP experiments, and regretted the loss of bottom-hole assemblies in this very tough drilling.

PCOM congratulated Drs. Silver, Fryer, and Taylor for their success, and thanked them for their presentations.

804 PCOM Liaison to Pre-Cruise Meetings

During the report by L. Garrison in Minute 797 a discussion was held about the necessity of having a more direct PCOM input into the preparation of the leg prospectus at the pre-cruise meeting. A motion was put forward in response to this desire, leading to the following discussion.

Discussion

von Rad was concerned about the additional time and travel commitment this would impose on PCOM members, as well as the additional cost. Other non-US members of PCOM were clearly not at ease. Brass calculated, however, that this motion would require travel to about one meeting every two years for a PCOM member. Besides, there is no specification that the liaison has to be a PCOM member. The liaison could be a member of a thematic panel appointed by PCOM. Meyer suggested that the draft prospectus could also be sent to the appropriate PCOM members for comment. Brass said the idea is to keep everything general and flexible.

Garrison wanted to know why it is assumed that if the program is clear to the liaison, it would not be clear to the Science Operator? Austin said that there have been these kinds of misunderstandings in the past. Hayes said that PCOM is under the obligation of defining, as well as possible, the objectives and priorities of a drilling leg. The liaison method should be given a try and if it is not needed then PCOM should back-off. The liaison to the NE Australia Margin pre-cruise meeting in February will be decided later. The question was called.

PCOM Motion

PCOM shall designate a liaison to each pre-cruise meeting, to provide guidance during the construction of the drilling leg prospectus. (Motion Brass, second Malpas)

Vote: for 10; against 2; abstain 4

805 Role of Detailed Planning Groups

Mark Langseth's memo of June 22, 1989, to the Planning Committee discusses the need to keep the responsibilities for planning and advice separate in JOIDES, and in particular they need to be separate with respect to the function of DPGs. The very name Detailed Planning Group indicates that he is essentially correct in his evaluation of the situation. His recommendations are:

1. DPGs be ad hoc short-lived groups formed by PCOM and reporting to PCOM.
2. Special Working Groups can be formed ad hoc by thematic (and other?) panels with PCOM approval.

Leinen agreed with Langseth that the functions of the two groups should remain separate. Taira, who was on the subcommittee which wrote the mandates, also agreed with Langseth. DPGs provide specific drilling plans; they do not provide advice on other matters to panels. Brass said that DPGs should report through the thematic panels. PCOM should not approve their recommendations until the thematic panels have had a chance to comment on them. Malpas agreed that DPGs should report through the thematic panels. Mevel agreed as well. von Rad feared that having to report a detailed plan through a thematic panel would slow down the process 6 months. Moberly pointed out that PCOM forms DPGs, and can without the request of any one thematic panel. Malpas said that DPGs may have to report through more than one panel. Leinen said that planning by DPGs is usually for some thematic panel and if so should report through the panel. Brass said that a circular planning route should be avoided; a better method would be to have the thematic panels make their comments to PCOM, that way we know where the problems are occurring. Watkins said this is a management problem and PCOM needs to provide specific mandates for DPGs. Cowan asked if the thematic panels should have the right of approval over what comes from the DPG. Brass said that they should not edit what PCOM sees, only comment upon it. von Rad was concerned that these mechanisms would slow down the planning process. Mevel suggested that the thematic panels have a better expertise to evaluate the job done by the DPG. A part of the mandate for DPGs was read aloud: *DPGs provide written documents to those thematic panel(s) specified by PCOM. The DPG documents are transmitted to PCOM with the written evaluation of the appropriate thematic panel.* A straw vote indicated that PCOM did not want any change in the mandate of DPGs.

With respect to the two functions that Langseth wrote about, Watkins wanted it emphasized to the thematic panels that DPGs are not working groups. Cowan said that reconstruction of ad hoc working groups is required. Currently, the JOIDES structure does not provide for them. Brass requested that the PCOM mandate be changed so as to reconstitute ad hoc working groups. Moberly agreed to draft this language, to be presented the following morning..

Thursday, 24 August 1989

The following change in the PCOM mandate was offered, to reconstitute ad hoc working groups.

PCOM Motion

PCOM approves the change in wording of the PCOM mandate shown below.

3.2 Mandate. The Planning Committee is responsible for the mandates of the various panels, planning groups, and **ad hoc working groups** and their membership. (Addition shown in bold)

(Motion Brass, second Watkins)

Vote: for 14; against 0; abstain 0; absent 2

The status of the remaining two regional Detailed Planning Groups CEPDPG and WPDPG was considered. WPDPG has finished its work. The remaining work for the CEPDPG might be done mainly through the mail. The following motion was made.

PCOM Motion

PCOM disbands both the Western Pacific Detailed Planning Group and Central and Eastern Pacific Detailed Planning Group. (Motion Kastner, second Hayes)

Vote: for 1; against 13; abstain 1; absent 1 (Failed)

Discussion

Austin said that there will be site survey data coming in for CEPAC programs, requiring some group to evaluate it and pick the best sites. Hayes suggested that SSP was the appropriate panel, but was reminded that EXCOM had carefully reworded the SSP mandate. Cowan said that there are no detailed plans for Cascadia. Brass stated that the proper method would be to have CEPAC meet as soon as possible and pass their report for comments through the thematic panels before our Annual Meeting. Tucholke said that at both Miami and Oslo the decision was made by PCOM to keep the CEPDPG to do the detailed planning. Although CEPAC may not have the ideal constitution, someone has to make these plans and CEPDPG has the corporate memory. Tucholke regretted that under the circumstances, the ideal situation that Brass mentioned would not be possible this fall. As a matter of damage control, CEPAC will have to meet late. Leinen supported Tucholke's logic.

Brass then agreed on a matter of pure practicality, and said that PCOM will need these detailed plans in November, to choose 6 legs for FY91 drilling. In some instances we don't even know whether we are talking of a 1-leg or a 2-leg program.

Since there was no need to keep the WPDPG the following motion was made and passed without additional discussion. von Rad wanted Jim Gill thanked for taking over the chairmanship of WPDPG during its uncertain tenure.

PCOM Motion

PCOM disbands the Western Pacific Detailed Planning Group. (Motion Brass, second Kastner)

Vote: for 14; against 0; abstain 0; absent 2

Thematic panels will be told that, because it will not be possible to have either CEPACDPG meet before the thematic panels meet (various surveys in the eastern Pacific will not be completed), or the thematic panels meet again after CEPAC meets in November (the Annual meeting is at the end of November), PCOM realized that in the fall of 1989 it will not be possible to have the evaluations by thematic panels of the next prospectus. Therefore, thematic panels should be careful in stating their objectives for the candidate programs of the FY91 eastern Pacific drilling. Further, Brass suggested that PCOM authorize each thematic panels to send a liaison to the November CEPACDPG meeting, and PCOM agreed to this suggestion.

806 Panel Membership

Kastner suggested that in the future that a short c.v. be supplied when candidates for panel membership are nominated. This will help PCOM construct more balanced panels. This was agreed to be a good idea, and will be expected at future PCOM meetings, whether received from a panel or presented by a PCOM member. Malpas said that it would be helpful to have areas that need strengthening identified so that the non-US partners can also make appropriate appointments. Brass suggested that the nominees should also be informally approached prior to the PCOM meeting in order to know if the candidate will accept if asked by PCOM to join a panel. The nominator (panel or PCOM member) should ask, rather than JOIDES Office, which may sound as if appointment is a certainty. Hayes emphasized that those approached should be made aware that they are only under consideration. Moberly reminded PCOM members that they should be prepared to nominate candidates to ensure that panels are balanced, regardless of whether or not nominations come from panels. Hayes stated that PCOM should avoid putting more than one person from one institution on one panel.

Panel membership decisions were made for the following panels.

LITHP- two new members with expertise in seismology will be asked to join the panel in the order shown: Tom Brocher, James McClain and Paul Silver.

It was suggested that Nick Christensen be asked to join the panel after Kier Becker rotates; LITHP Chairman will be asked if that is appropriate.

OHP- one new member with expertise in Mesozoic paleoceanography will be asked to join the panel in the order shown: T. Bralower, W. Poag, R. Parrish. A new panel member with expertise in sealevel change needs to be selected by Chairman Nick Shackleton from the list K. Miller, W. Poag, T. Moore and T. Loutit.

SGPP- one new member concerned with geochemical balancing, Bill Hay, is to be asked to join the panel. Nominations with a brief c.v. are requested for a seismic stratigrapher; Bill Normark will have to fill that category until he rotates.

TECP- one new member concerned with sub-seafloor seismic observatories, Mike Purdy, is to be asked to join the panel. No actions were taken on other panel requests. Further nominations with a brief c.v. are requested to fill gaps in the panel expertise.

DMP- nominations to replace Eddie Howell are requested.

IHP- Ted Moore is asked to continue as chairman of the panel.

PPSP- one new person, Barry Katz, is to be asked to join the panel.

SMP- no actions were needed.

SSP- no actions were needed.

TEDCOM- needs to evaluate whether or not a new panel member is required.

Ted Moore is to be asked to chair the Annual Panel Chairmen's Meeting at Woods Hole in November.

PCOM Motion

PCOM accepts the slate of persons nominated to serve on panels. (Motion Leinen, second Kastner)

Vote: for 15; against 0; abstain 0; absent 1

Moberly stated that he will attend either the fall 1989 or late-winter 1990 meeting of each of the thematic panels, to explain the need for a set of program rankings on a basis common to all panels, and to answer panel questions about the procedures.

In response to a question from Malpas, Pyle said that travel costs of a liaison person are the responsibility of the country of the liaison.

Confirmations of PCOM Liaisons to fall 1989 panel meetings are:

LITHP - Duncan
OHP - Jenkyns
SGPP - von Rad
TECP - Tucholke
DMP - Cowan

IHP - Cowan
SMP - Leinen
SSP - Lancelot
CEPDPG- Leinen

807 Global Geoscience Programs Other Than JOIDES

FDSN-IRIS

M. Purdy discussed the scientific opportunities for establishing seismic observatories on the seafloor using ODP drillholes. The long-term goal is the placement of 15 to 20 broad-band ocean floor seismographs in areas where no land or island broad-band observatory is nearby. The scientific goals of the program are to image the global earth structure better, and to constrain models of oceanic upper mantle dynamics and lithosphere evolution. The resolution of the present global tomography is limited by the seismic station coverage. A better spatial distribution is needed to sample the ray paths from large earthquakes. Oceanic islands are also not ideal stations because they are relatively noisy and have anomalous structure beneath them.

Several technical issues remain to be worked out. The ability to operate a seismograph downhole for long periods of time has to be demonstrated. Data retrieval options have to be worked out. Possibilities include use of ocean-floor telephone cables, satellite telemetry, and interval recording. Necessary pilot experiments are planned to test the equipment and make a comparison between ocean-bottom observatories and nearby ocean-island observatories. The pilot program is not planned to be extensive; if it is initially successful, the aim is to commence establishing the stations soon.

There has been a workshop at Woods Hole sponsored by JOI/USSAC to examine the need for the observatories. JOIDES is in the position to help catalyze the process. By placing reentry cones and casing holes, suitable sites for ocean bottom seismic observatories are created. This is of great importance in those areas where there are no seismic stations.

Discussion

Leinen asked if there were any areas that were more important than others for establishing observatories. Purdy said that a station off California would have the largest impact. Hayes wanted to know if the holes would have to be dedicated to the seismometers forever. Purdy said that good coupling in the drillhole may require attachment, but in the early development stages the seismometers would have to be removable.

RIDGE

J. Delaney presented the science objectives of RIDGE and importance of the linkages to ODP. The global mid-ocean ridge system is viewed as forming a single system for energy flow from the interior of the earth. One of the important recent discoveries is the impact of this energy transfer on the biology and chemistry of the ocean. An unexpected discovery that has come out of ridge-crest studies has been the ability of volcanoes to sustain life independent of the energy output of the sun. The ridge system provides a linkage between the mantle and the water column. Science objectives of RIDGE are: the study of mantle flow and associated generation and transfer of

melts; segmentation and episodicity of volcanism along ridges; the interaction of seawater with basalts; the complex interplay of hydrothermal systems and organisms. Of fundamental importance is the boundary between the magma chamber and the lithosphere, which cannot be studied other than by drilling. A long-term commitment to study this boundary would generate a leap in knowledge in a 5- to 10-year period. Another common long-term goal of both RIDGE and ODP is the establishment of ocean-floor observatories at ridge crests. The success of RIDGE depends on having a drilling capability and thus has linkages to ODP.

Discussion

Moberly wanted to know if there were international links to RIDGE. Delaney said that the UK, FRG, France, USSR, Iceland, Japan, Canada and US all have strong interests in cooperating on ridge-crest studies. An international group INTERIDGE has been formed. Two more meetings are scheduled for the international group.

Austin asked if there were any areas for special cooperation between ODP and RIDGE. Delaney said that there were many areas of overlapping interest, since in many ways RIDGE is an offshoot of LITHP. Areas for closer cooperation are seafloor observatories and downhole instrumentation.

JOI Initiatives

T. Pyle suggested a possible model for the JOIDES structure with liaisons to other global geoscience initiatives (Appendix D). The size of a liaison body would be 2-4 members each from ODP and another group. There would be few meetings, with most of the work being done by mail, telemail, FAX, etc. The body would be established to focus the exchange of information and as points-of-contact.

Moberly asked when the best time to have these meetings would be; the annual meeting or this summer meeting? Brass suggested that the summer meeting seemed more appropriate. Brass said that there is already considerable overlap with some of these groups; isn't this sufficient? Pyle said that for appearance a formal liaison is better. Hayes wanted to know what would be the criteria for liaisons between JOIDES and the other groups? Pyle said that they should be international programs open to outside participation and that have an active interest in the science and objectives of ODP. Cita suggested that with big science projects, it is important to have some formal linkage for both political and international reasons. Brass said that the structure of each group is peculiar to that organization and a set formula for the liaison bodies may not work. Leinen said that the perception of the importance of ODP to these programs will also play a role in the form of the linkages. Kastner suggested that Pyle send his diagram to each group and ask them to respond as to how they view the structure. Delaney said that RIDGE views linkages to ODP as vital. There may be a need, however, to demonstrate that having a drilling capability is necessary for the success of

other groups' efforts. Moberly asked if Pyle would pursue establishing these linkages to other groups and see what response is given, and then report to PCOM in November. The answer was Yes.

PCOM Consensus

PCOM approves the JOI, Inc., efforts to establish more formal links with appropriate other international global geoscience initiatives.

808 Non-JOIDES Representation on PCOM

During the presentation by T. Pyle in the reports by liaisons to PCOM (Minute 796), a discussion was held about possible action by the JOI Board of Governors to increase outside representation in the planning structure. Austin read some comments by Kastner and Brass. The Planning Committee represents the end of a lengthy process of planning; its members represent stable constituencies, whereas independent members would have no definable constituencies. Perhaps non-JOIDES observers could be invited, and if the balance changes as we hope between US and non-US members, we could open up a more permanent representation. PCOM should poll US members of panels not from JOIDES institutions, to see if there is a problem. Brass said that he had asked that participants on the *Resolution* also be included. EXCOM should be asked to delay their decision until we can find out if the perception is justified. The time of renewal of MOUs, when the numbers of members and proportion of funding might be changed, would be a good time to consider the issue, if it is still perceived as being important. Brass wondered if 2 of 10 would be considered merely a trivial gesture, if we are being questioned about openness. Watkins agreed with Brass's earlier suggestion that non-JOIDES people be polled, and that EXCOM be asked not to act until we found the extent, if any, of the perception. Austin said we must give a clear signal to EXCOM that we will do something, because they are ready to do something if we don't. The subcommittee that volunteered to prepare a resolution for PCOM approval (J. Austin, B. Tucholke, M. Kastner and G. Brass) produced the following motion and led to the following consensus.

PCOM Motion

PCOM forwards to EXCOM the following resolution. (Motion Watkins, second Austin)

Vote: for 12; against 0; abstain 2; absent 2

PCOM Resolution

PCOM is cognizant of and sympathetic to the PEC and EXCOM concern regarding "openness" of the JOIDES advisory structure to broad community involvement. Nonetheless, PCOM feels strongly that non-JOI input to its deliberations is already substantial. Approximately 50% of U.S. participants currently residing on JOIDES thematic and service panels come from non-JOIDES institutions. Furthermore, because PCOM feels

that the JOIDES institutions represent the primary repositories of marine geological and geophysical expertise in the U.S., any long-term 1-for-1 replacement of their present membership on PCOM by others would both dilute necessary corporate memory and disenfranchise JOIDES institutions. However, because PCOM recognizes that various scenarios for non-JOIDES involvement in PCOM decision-making are possible, PCOM looks forward to further JOI, Inc., input on this matter.

PCOM Consensus

In order to evaluate the openness of the ODP planning structure to the interests of scientists at non-JOIDES institutions, the Planning Committee requests that the non-JOIDES ODP shipboard participants and those on the JOIDES advisory panels be asked for their impressions of the openness of the program and to comment on means to improve whatever deficiencies may be apparent.

809 Responsibilities of Operations Superintendent vs. Co-Chief Scientists

PCOM discussed Yves Lancelot's letter of 5 August 1989 to PCOM chairman Moberly concerning statements in a memo given to Co-Chief Scientists as part of a notebook at the pre-cruise meeting, stated as coming from the JOI-ODP Policy Manual. These statements discuss the responsibilities of the Operations Superintendent vs. those of the Co-Chief Scientists onboard the *JOIDES Resolution* concerning implementation of drilling and logging plans. The Policy Manual, however, is still in draft.

Moberly suggested that a subcommittee be formed to examine the ODP Policy Manual draft and recommend to JOI any appropriate changes in parts that have to do with the JOIDES role of providing scientific advice. Garrison wanted to know if there was also a problem with the logging statements made in the ODP-TAMU memorandum. There were no objections to that part of the memo. The logging statements are based on the PCOM motion at the January 8, 1987 PCOM meeting. Leinen said that her reading of the letter suggests that the problem is with the vague wording in the memo about the ODP Policy Manual statement.

Brass said that ODP-TAMU is responsible by contract to carry out as best they can projects given them by the planning structure and therefore has the authority to ensure that the Co-Chiefs follow these instructions. Kastner and Austin agreed with Brass. Moberly expressed concerns about situations where there are valid scientific differences of opinion based on knowledge gained during the drilling. Leinen suggested that the wording should be changed. Tucholke said that deletion of the first three sentences of the paragraph commencing with Departmental policy ... and allow the remainder to follow paragraph 562 would remove the problem. [The remainder should begin: This policy statement is not to imply ...] Moberly pointed out there are also some misstatements; *i.e.* PCOM does not approve the cruise prospectus.

Garrison suggested that unless the ODP-TAMU policies go against PCOM policy, these internal documents should not be a PCOM concern. PCOM suggested that the Science Operator use more appropriate, neutral wording which would solve the problem without affecting ODP-TAMU internal policy. PCOM's recommendation to JOI was that the Science Operator be asked to remove the first three sentences of the TAMU paragraph after draft paragraph 562.

810 Future Meeting Schedule

The next meeting will be the 1989 Annual PCOM meeting to be held in Woods Hole, Massachusetts, on 27-30 November, 1989, and hosted by the Woods Hole Oceanographic Institution. It will be preceded by the Panel Chairmen's meeting on 26 November. A field trip is very tentative.

The The 1990 Spring PCOM meeting is to be held in Ville Franche near Nice in the South of France on 24-26 April, 1990. A tentative field trip in the Alps has been suggested.

The 1990 Summer PCOM is to be held in La Jolla on 7-9 August 1990 and hosted by Scripps.

The 1990 Annual PCOM meeting is to be held in Hawaii on 26-29 November, 1990 and will be hosted by the Hawaii Institute of Geophysics. It will be preceded by the Panel Chairmen's meeting on 25 November. The specific venue (Honolulu, Hilo, or elsewhere) is not yet set.

The 1991 Spring PCOM meeting will be hosted by the University of Texas at Austin in April 1991.

The 1991 Summer PCOM meeting will be hosted by the FRG in August 1991.

811 Conclusion of the Meeting

The Planning Committee thanked Darrel Cowan for his efforts towards making this meeting both productive and enjoyable. Thanks were also forwarded to Paul Johnson and the College of Ocean and Fishery Science of the University of Washington.

The 1989 Summer PCOM meeting adjourned at 1:45 PM so that participants could attend the joint USSAC/US-PCOM meeting scheduled for that afternoon.

In the attempt to finish in time for the joint meeting, the following business item on the agenda was overlooked. Through a poll conducted by PCOM chairman Moberly just before the joint session, PCOM approved the suggested change in mandate for those service panels without a statement about membership. [EXCOM had asked that a membership statement be made for all of the panels; the proposed wording had been printed in the agenda briefing book.]

PCOM Poll of Individual Members

PCOM approves the change in wording of the Terms of Reference for Service Panels as shown below, and forwards to EXCOM the recommended change for EXCOM's approval.

7.1 **General Purpose** [of Service Panels] is modified by having its last sentence transferred from that section to be the first sentence of a new Section 7.1.1, which reads:

7.1.1 **Membership**. PCOM appoints the chairman and panelists and keeps membership, including representation from the non-U.S. JOIDES member institutions, under review. The Chairman serves at the pleasure of PCOM, and members serve at the pleasure of PCOM or their non-U.S. appointing member. Representation from all non-U.S. members should be maintained. Panel membership, not to exceed 15, should be maintained as small as is allowed by the range of expertise necessary to meet mandate requirements.

Vote: for 13; against 0; abstain 0; absent 3

Conclusion of meeting.

Material distributed at the meeting

Appendix A	NSF budget
Appendix B	ODP operations schedule; site locations of legs
Appendix C	Nankai drilling
Appendix D	Possible structure to include liaison to other global geoscience initiatives

THE FY 1989 and 1990 NSF BUDGET

	88-89 Increase	FY 1990 Request
RESEARCH AND RELATED		
Math. & Physical Sci.	6.6%	+10.0%
Engineering	8.7%	+12.8%
Bio., Behavioral, Soc.	6.0%	+11.7%
GEOSCIENCES	6.9%	+10.0%
Comp. & Inform. Sci.	23.6%	+25.7%
Sci., Tech. & Int.	16.0%	+15.4%
U.S. ANTARCTIC PROGRAM	5.6%	+18.9%
SCI. AND ENGINEERING ED.	23.9%	+11.1%
TOTAL FOUNDATION	9.8%	+13.9%

In GEOSCIENCES (Earth, Atmospheric, Ocean, Arctic Sciences)
 Requested Increase \$30M (10.0%) \$31.0M (10%)
 Actual Increase \$19.6M (6.9%)

In OCEAN SCIENCES (MG&G, Bio, Phys, Chem, Facilities, ODP)
 Requested Increase \$11.1M (8.2%) \$6.7M (4.1%)
 Actual Increase \$11.1M (8.2%)

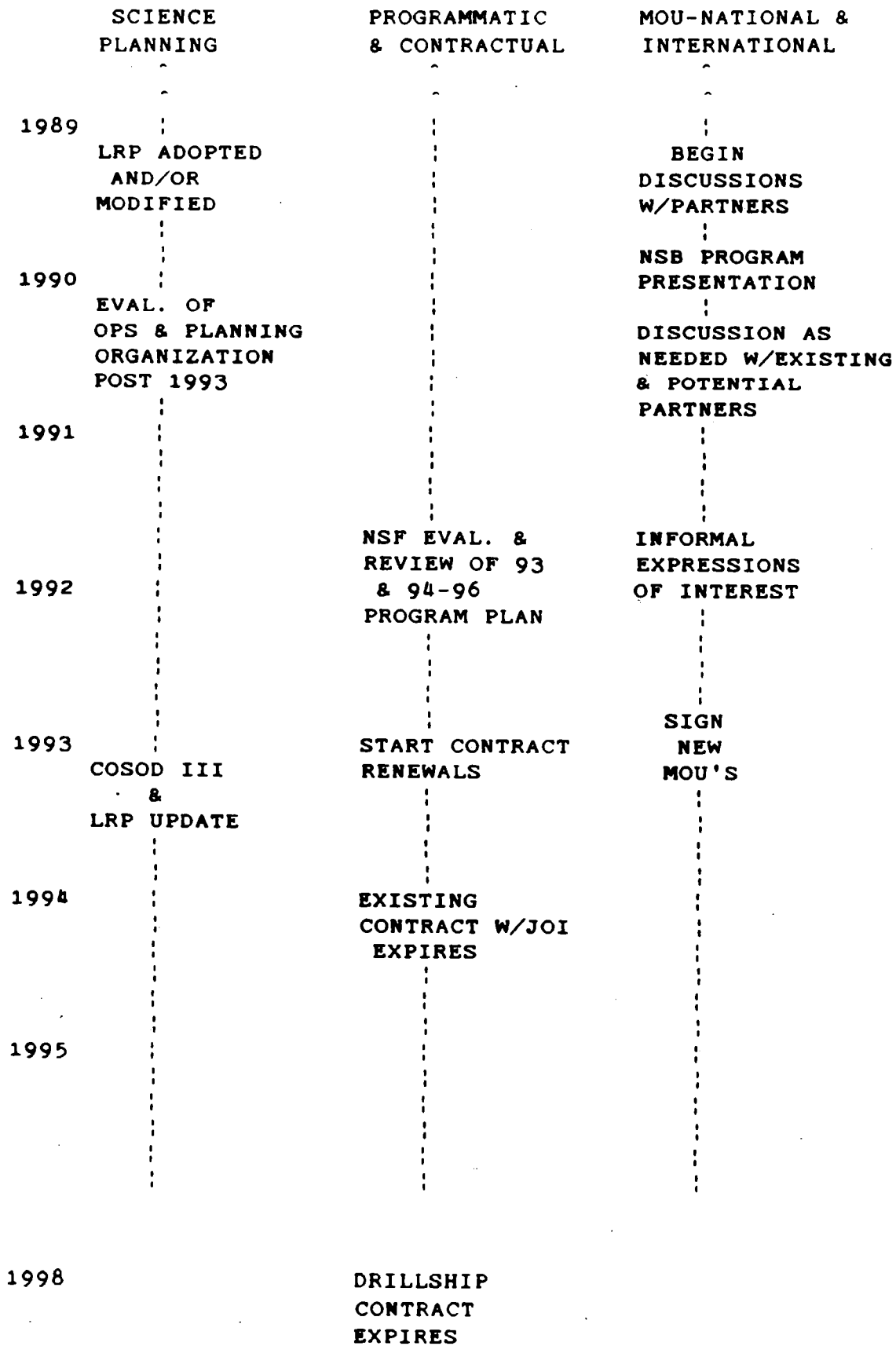
OCEAN SCIENCES DIVISION DETAIL

	<u>FY 1988</u>	<u>FY 1989</u>	<u>FY 1990</u>
OCEAN SCIENCES DIVISION	\$ 135.3 M	146.2 M	152.9 M
Ocean Sciences Research	67.2 M	71.2 M	74.7 M
Ocean Drilling Program	30.9 M	31.4 M	32.9 M
Oceanographic Facilities	37.2 M	43.6 M	45.3 M
Facilities Detail			
Operations			
Ship Operations	24.9 M*	26.5 M*	27.5 M*
Alvin, Aircraft, etc	2.0 M	1.3 M	2.0 M
Marine Techs	3.5 M	3.4 M	3.4 M
Acquisition and Development			
Science Instruments	1.8 M	1.6 M	1.6 M
Shipboard Equipment	1.0 M	.9 M	.9 M
Technology Development	2.8 M	4.8 M	4.8 M
AMS Center	0 M	1.8 M	1.8 M
UNOLS, ACQ, MISC	1.2 M	3.3 M	3.3 M

* Additional \$1.5M provided by Ocean Drilling Program

APPENDIX A

ODP RENEWAL ACTIONS



ODP OPERATIONS SCHEDULE

<u>Leg</u>	<u>Objective</u>	<u>Days At Sea*</u>	<u>Cruise Dates</u>	<u>Port</u>
127	Japan Sea I	58	6/24-8/21	Pusan-8/21-8/25
128	Japan Sea 2	51	8/26-10/16	Pusan -10/16-10/17 (Leg 128 Scientists Off)
---	Transit	9	10/18-10/27	Singapore-10/27-11/11 (dry dock and port)
---	Transit	10	11/12-11/22	Guam I - 11/22-11/23 (Leg 129 Scientists On)
129	Old Pacific Crust	56	11/24-1/19/90	Guam II - 1/19-1/23
130	Ontong Java	62	1/24-3/27	Guam III - 3/27-3/31
131	Nankai	62	4/1-6/02	Pusan - 6/2-6/6
132	Engineering 2	55	6/7-8/1	Guam IV - 8/1-8/5
---	Transit	7	8/6-8/13	Port Moresby-8/13-8/14
133	N.E. Australia	56?	8/15-10/10	Brisbane-10/10-10/14
134	Vanuatu	56?	10/15-12/10	Suva - 12/10-12/14
135	Lau Basin	56?	12/15-2/9/91	?

*Schedule subject to change pending detailed planning after Leg 131.

Revised 8/7/89

APPENDIX B

Proposed Site Occupation Schedule, Leg 128* (Revised 19 July, 1989)

	DATE	Time on Station (days)	Transit Time (days)
Leg 128 departs Pusan on August 26, 1989			
Transit Pusan to JS-2			1
AR JS-2	27 August	6.6 (1.4)	
LV JS-2	3 September		
Transit JS-2 to Site 794 (J1b-1)			1
AR 794	4 September	10.0	
LV 794	14 September		
Transit Site 794 to J2a-1			1
AR J2a-1	15 September	9.0	
LV J2a-1	24 September		
Transit J2a-1 to Site 794			1
AR Site 794	25 September	7.0 (6.0)	
LV 794	2 October		
Transit Site 794 to J2a-1			1
AR J2a-1	3 October	12.0 (3.0)	
LV J2a-1	15 October		
Transit J2a-1 to Pusan			1.3
Ar Pusan	16 October, 1989		

*Schedule is constrained by 1) meeting of second vessel at JS-2 on 3 September, and 2) meeting of seismic vessels at 794 on 25 September

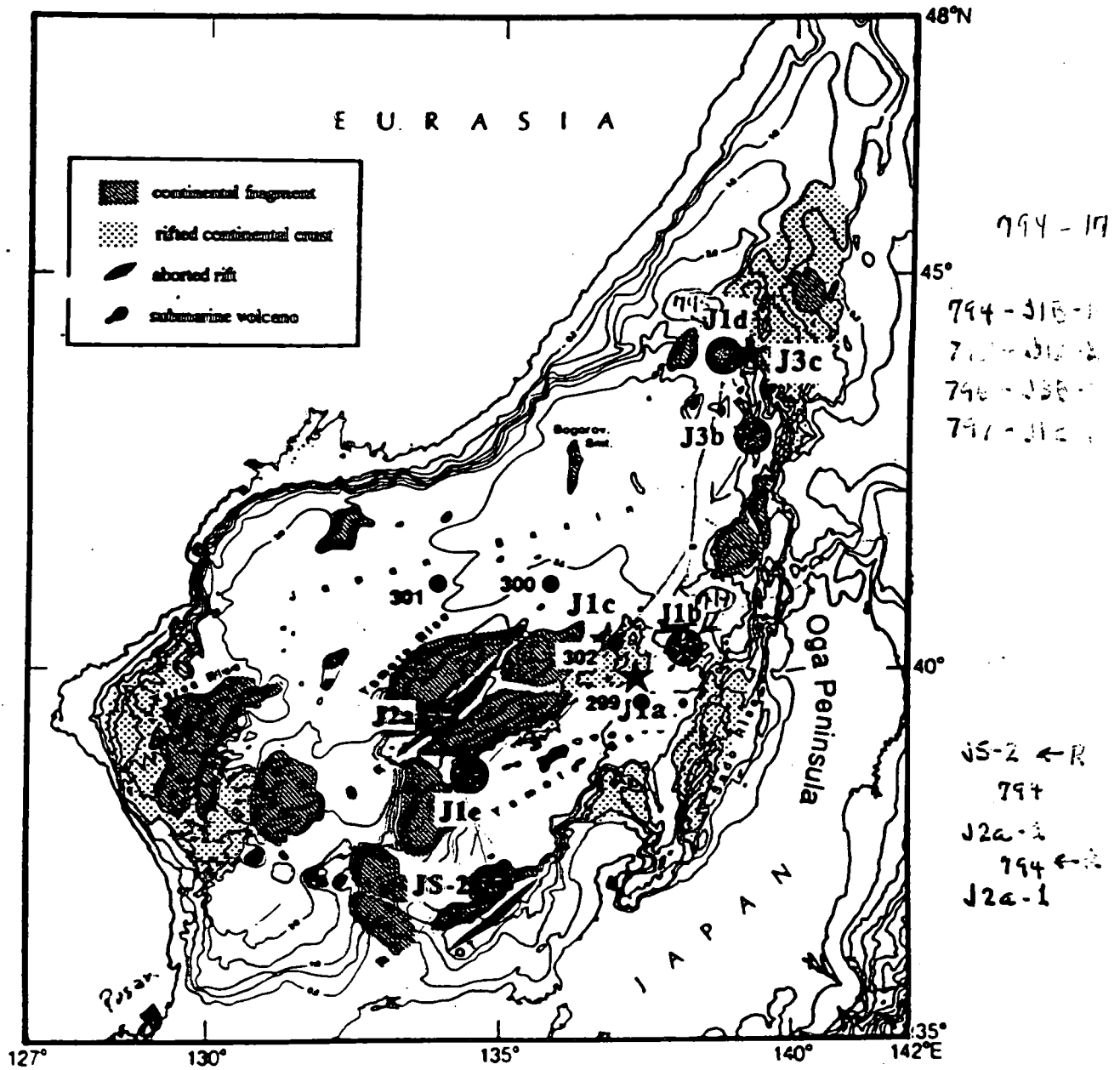


Figure 1.

Table 2. Leg 130 drill sites

Site #	Latitude Longitude	Water Depth (m)	Penetration (m)		Time Estimate (days)		
			sed	bsmt	Drill	Log	Total
OJP-5	03°34' N 156°36'E	2820	1350	150	21.2	3.6	24.8
OJP-1	00°19.2'N 159°21.9E	2600	650	---	5.9	1.4	7.3
OJP-2	01°13.5'N 160°31.8'E	3200	500	---	5.6	1.5	7.1
OJP-3	01°06.3'N 162°35.7'E	4200	200+	---	4.4	---	4.4
OJP-4	02°26.0'N 150°31.8'E	3400	450	---	5.2	1.5	6.7

ALTERNATE SITES

OJP-6	00°59.0'N 161°35.8'E	3920	200+	---	4.2	---	4.2
OJP-4a	02°26.0'N 160°31.8'E	3400	250	10	1.5	---	1.5

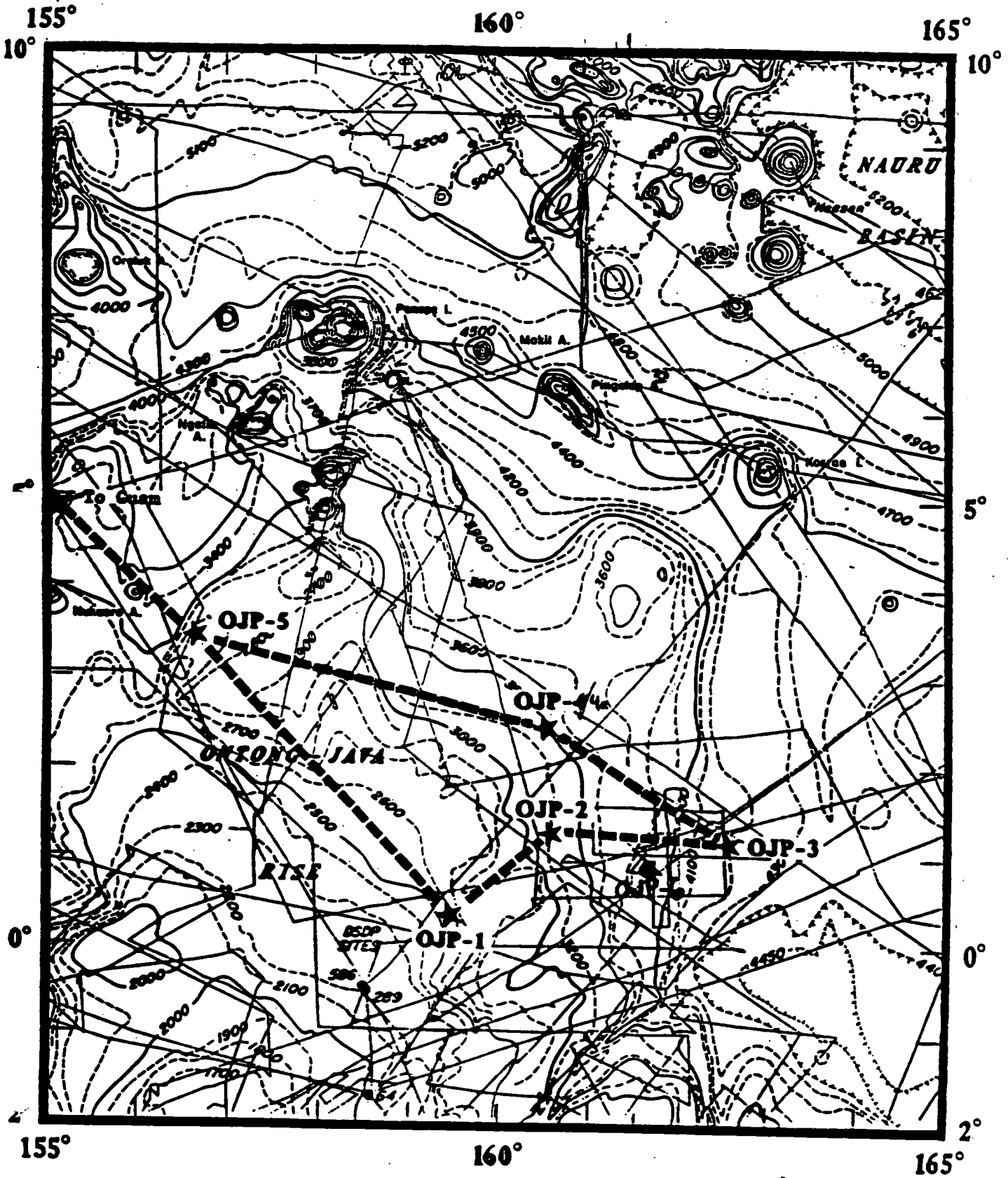
Drilling Plan:

- OJP-1 Double APC to 250 m, Third APC to 50 m
XCB to 650 m
- OJP-2 Double APC to 250 m, Third APC to 50 m
XCB to 500 m
- OJP-3 Double APC to 250 m, Third APC to 50 m
- OJP-4 Double APC to 250 m, Third APC to 50 m
XCB to 450 m
- OJP-4a Wash to 250 m, RCB to 260 m
- OJP-5 APC to 220, XCB to 600, Set Reentry Cone and RCB to 1500 m
- OJP-6 Double APC to 250 m, Third APC to 50 m

Logging Plan:

2 Schlumberger runs at OJP-1, 2, 4, 5 and FMS/BHTV at OJP-5

Fig 6.

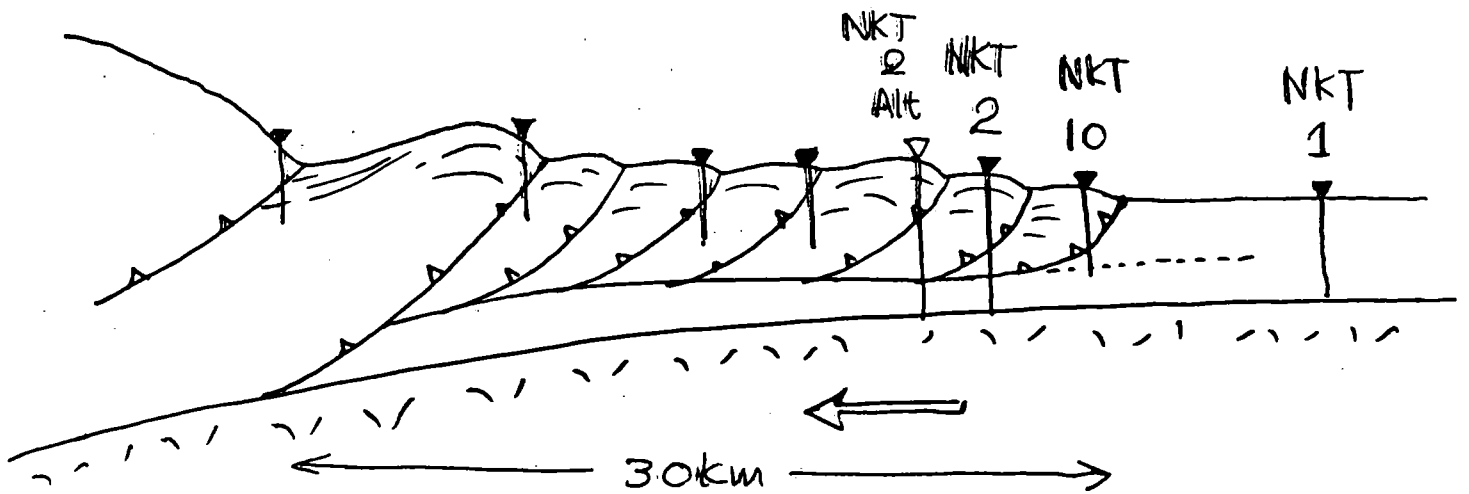


Nankai Drilling Plan

I Overview

Two Objectives

1. Deep Objectives : Depth Gradient, Decollement & Hemipelagite (+ Basement)
2. Shallow Objectives: Lateral Gradient through Offscraped Section



II Leg Scenario

Two Legs

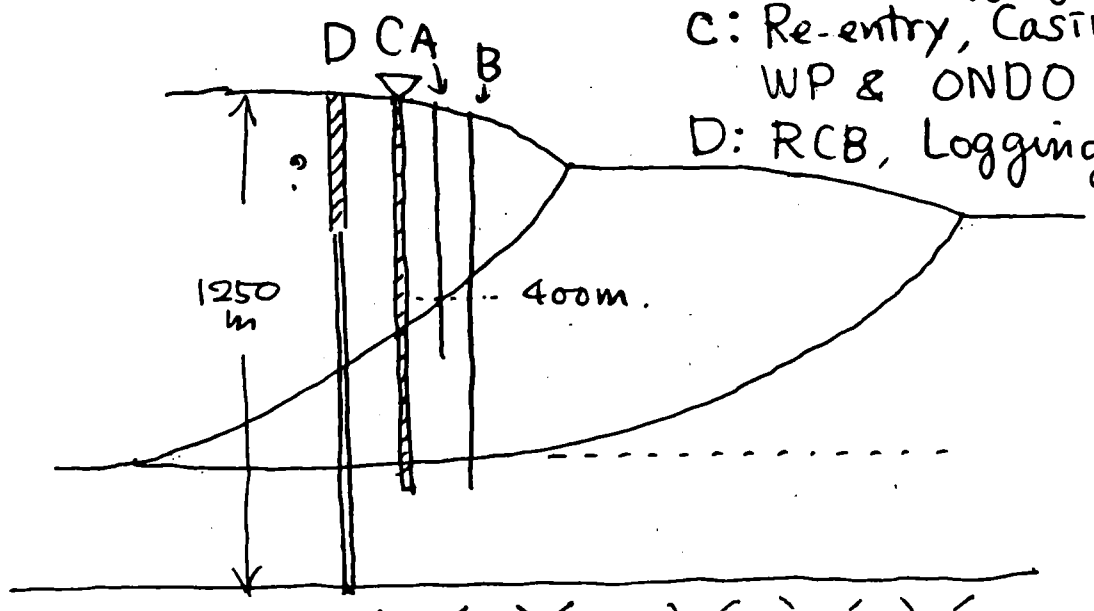
- | | | | | |
|----------|---|-------|--------------------|--------------------------------------|
| Option 1 | { | Leg 1 | Deep Objectives | (Decollement is the most important) |
| | | Leg 2 | Shallow Objectives | |
| Option 2 | { | Leg 1 | Shallow Objectives | |
| | | Leg 2 | Deep Objectives | |
| Option 3 | { | Leg 1 | Deep + Shallow | |
| | | Leg 2 | Deep + Shallow | |

III NKT2 vs NKT10

	<u>NKT2</u>	<u>NKT10</u>
Decollement	fully developed	incipient?
Geoprop Penetration	not to reach decollement	close to reach incipient decollement (deeper structural level)
Re-entry cone setup	OK	Soft substrate
Overall feasibility	Some problem	Possible

IV Drilling Plan

- A: APC/XCB Geoprops
- B: RCB, Logging, Packer
- C: Re-entry, Casing, WP & ONDO
- D: RCB, Logging, Packer



Proposed Revision to the JOIDES Advisory Structure

