

JOIDES PLANNING COMMITTEE MEETING  
10-12 April 1987  
Washington, DC

MINUTES

Members:

N.Pisias (Chairman) - Oregon State University  
H.Beiersdorf - Federal Republic of Germany  
G.Brass - University of Miami  
W.Coulbourn - University of Hawaii  
T.Davies (for T.Shipley) - University of Texas  
O.Eldholm - ESF Consortium  
J.Francheteau (for J.P.Cadet) - France  
T.Francis - United Kingdom  
S.Gartner - Texas A&M University  
M.Kastner - Scripps Institution of Oceanography  
M.Langseth - Lamont-Doherty Geological Observatory  
R.Larson - University of Rhode Island  
R.McDuff - University of Washington  
P.Robinson - Canada  
D.Ross - Woods Hole Oceanographic Institution  
A.Taira - Japan

Liaisons:

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

Guests / Observers:

R.Anderson - Wireline Logging Services (ODP/LDGO)  
P.Barker - Leg 113 Co-Chief Scientist  
D.Fisher - NSF/OCE  
X.Golovchenko - Borehole Research Group (LDGO)  
D.Heinrichs - NSF  
G.Leonard Johnson - Office of Naval Research  
A.Sutherland - NSF  
H.Zimmerman - NSF

JOI, Inc.:

E.Kappel  
R.Smith

JOIDES Office:

S.Stambaugh  
M.Wiedicke

## INTRODUCTIONS AND OPENING REMARKS

N.Pisias, Chairman, opened the meeting by displaying a viewgraph, the moral of which was that cooperativeness and assertiveness can lead ideally to consensus.

Pisias then introduced M.Langseth, new Planning Committee member from Lamont-Doherty and D.Ross, new member from Woods Hole Oceanographic Institution. PCOM alternates J.Francheteau (for J.P. Cadet, France) and T.Davies (for T.Shipley, U.Texas) were welcomed.

Also introduced were Dr.Peter Barker (U.Birmingham), Leg 113 co-chief scientist, Dr. Xenia Golovchenko (Borehole Research Group, LDGO), and A.Sutherland, Darlene Fisher and Herman Zimmerman, all at the National Science Foundation. Doris Rucker of JOI, Inc. provided logistics details; Pisias then thanked local host, Tom Pyle (JOI).

## ADOPTION OF THE AGENDA

Pisias explained that the agenda item on a possible change in PCOM's Term of Reference had been added at the request of the NSF for consideration by EXCOM at its next meeting. No further additions to the agenda were requested by PCOM.

### PCOM Motion:

The agenda for the 10-12 April 1987 Planning Committee meeting as presented is hereby adopted. (Motion Brass, second Kastner)

Vote: 16 for, 0 against, 0 abstain

## APPROVAL OF PLANNING COMMITTEE MINUTES

G.Brass asked that the previous minutes reflect his concerns about vertical seismic profiling during P.Worthington's presentation for the DMP. As PCOM discussed VSP at this meeting, Brass later indicated that amending the minutes would not be necessary.

### PCOM Motion:

PCOM approves the minutes of the 19-25 January Annual Meeting. (Motion Brass, second Kastner)

Vote: 16 for, 0 against, 0 abstain

## REPORT FROM THE BUDGET COMMITTEE

G.Brass, PCOM representative to the Budget Committee (BCOM) along with N.Pisias, opened the report. At its 25 February meeting, BCOM examined the draft FY88 budget to make sure that PCOM's scientific plans could be accomplished within the base budget. BCOM determined that to achieve the COSOD goals of drilling beyond temperate/tropic climates, special operations (e.g.

ice support) should not be considered "enhancements." BCOM attempted to bring down the FY88 standard operating budget \$1 - \$1.25M lower than the target figure (\$35.5M). BCOM agreed that any planned special operations should be included in that figure as "planned shortfalls". For PCOM's scientific planning, BCOM agrees that there may be years in which no special operations (e.g. high latitude drilling) are possible when other standard operations are necessary (e.g. drillstring replacement).

Brass said that by the time EXCOM meets next (28-30 April), the reductions to the base budget should be established. Details on the proposed reductions are included in the JOI report.

N.Pisias, presented an estimate of special operations needed for the next four years (Appendix A). To achieve the science goals as set out by PCOM, about \$1.25M per year is needed to support operations beyond normal drilling.

#### Discussion:

Pisias explained that BCOM would present the budget and describe the cuts at the next EXCOM meeting and that PCOM would now have to prioritize the cuts and provided recommendations for EXCOM. Final adoption of the FY88 budget will be delegated to BCOM.

### NATIONAL SCIENCE FOUNDATION REPORT

R.Bufler reported for the NSF. Although the increase in the NSF FY88 budget for ODP was only 4%, recent budget hearings in Congress have been optimistic.

#### FY 88 Budget:

The \$35.5M target figure will be guaranteed by NSF even without USSR participation (\$20.5M from NSF, \$15M from the six international partners). The delayed Soviet membership has impacted the FY87 budget: \$130K for ice boat support on Leg 113 and extra funds for riser drilling engineering development (\$36K) are identified FY87 cost overruns.

The settlement of a lawsuit between M&M Shipyards and UDI (SEDCO) for cost overruns on the ship conversion has resulted in a \$681K payment to M&M; \$200K was set aside in FY87 and the remaining \$481 must come from FY88 funds (U.S. contribution only). An increase in day rates, triggered by a 2% increase in the price index, will require addition funds. Bufler estimated that \$817K beyond the FY87 budget will be required from the U.S. contribution.

#### USSR Membership:

D.Heinrichs reported that the USSR is not yet an official member to ODP. He reviewed the history of the invitation to the Soviets, stating that the U.S. and international partners had explored the scientific, financial and political issues before issuing the invitation on October Of 1985. At the October 1986 EXCOM meeting, V.Krashenninikov announced that the financing to join was in place.

The FY87 budget for ODP assumed the Soviet membership. In November 1986, the U.S. Office of Science and Technology asked for a second review the Soviet membership. Although the civilian agencies approve, the National Security Council and Department of Defense strongly disagree. The final decision on Soviet membership is due in about one month (not in time for the April EXCOM meeting).

Discussion:

Heinrichs said that recent political events had made timing very bad for the Soviet membership. He hoped that the international partners would come forward to express the scientific merit of Soviet membership. R.Larson reminded PCOM that a similar budgetary shortfall had occurred when the United Kingdom membership was delayed in 1985. He heeded that the impact would be felt now; needed site surveys in the Pacific will suffer as NSF can only "raid" funds set aside for geophysical surveys. Heinrichs added that site surveys will not stop, but there may be pressures to reduce shipboard services on them.

Regarding the Canadian/Australian joint subscription, NSF's latest news is that Australia has raised a 40% contribution through industry and academic participation and the venture has strong scientific support there.

JOINT OCEANOGRAPHIC INSTITUTIONS, INC.

T.Pyle opened the JOI, Inc. report with an update on COSOD II. As delays have occurred in notifying U.S. participants through Casey Moore, Pyle advised PCOM to notify known U.S participants of their selection. The late timing will create problems with reservations, although JOI has set aside 50 airline reservations until 1 May.

Status of the FY88 Budget:

Pyle presented the development of the FY88 base budget (Appendix B). The proposed total FY88 budget was \$35.752M, and BCOM recommended a reduction to \$35.5, which was to include significant adjustments to the base and enhancement budgets. The response of the subcontractors (total budget of \$35.531M) included an unacceptable cut (no publication of Part B ODP Proceedings volumes). The current target figure of \$35.511M requires that additional cuts be made.

Proposed enhancements, referred to as "special operating expenses" by BCOM, are:

Ice support vessel	\$850K	Day rate increase
\$250K	Drilling supplies (for	\$158K
guidebase dev.)		
	<u>\$1.258M</u>	

Pyle presented the reductions submitted by the subcontractors to achieve the BCOM recommended budget of \$35.5M. The JOI/JOIDES budget was cut by \$200K,

largely by staff reductions at JOI including the international project specialist position for a revised budget of about \$1.521M (-\$20K of BCOM figure).

LDGO responded with a \$2.782M figure (an acceptable +\$31K over BCOM's recommendations; the JOI/JOIDES budget can be cut an additional \$20K over BCOM recommendations if necessary). The LDGO cuts were achieved by reducing the standard operating expenses in order to keep the third wireline packer on order.

Pyle showed a list representing JOI's proposed cuts to TAMU's FY88 budget (which appears in a slightly different format in Appendix L in which two additional cuts suggested by PCOM are included.)

Pyle then presented a list of lab specific proposed cuts to the shipboard technical services (Appendix C).

#### Discussion:

J. Francheteau expressed strong support for the mining coring system, a proposed cut, as development has already been delayed. Pyle added that the reduction of shipboard services represented a "major impact on future science."

PCOM discussed the publications budget. Brass suggested that savings could be found by cutting the run of hard-back copies of the Part A volumes to 1000 and putting the remaining 1000 on microfiche. ODP participants and libraries would get their volumes, and the program could save \$140K. He also suggested that subsequent press runs could be made on microfiche, but not on hard-back volumes, an added benefit. (Brass's recommendation was subsequently added to the proposed budget cut list which appears as Appendix L).

Robinson said that the base budget ought to reflect COSOD objectives and that basement drilling would further be postponed with the elimination of the Leg 118 guidebase. He suggested looking not just at the science operations, but at the TAMU headquarters budget as well. Pyle reported that TAMU has said that the \$100K already committed to mining coring systems and the \$1.7M TAMU administrative costs are non-negotiable items.

L. Garrison explained that TAMU Research Foundation charges \$200K to administer the project and that the remaining \$1.7M administration budget is the direct charge (\$1.5M). He said the program could not be administered for less and that science services represent cuts that can be made whether they are acceptable or not. He added that the 4% administrative cost for a \$31M program is not unreasonable.

H. Beiersdorf said that it would be hard to justify cuts in zero-age crust and high-latitude drilling, as well as publications, a visible result of the program, to the German ODP participants. Kastner added that high-temperature drilling will continue to be a COSOD II priority.

N. Pias reiterated that his list (Appendix A) is based on long-range program plans and that about \$1.25M per year is necessary to carry out special

operations.

T.Pyle said that BCOM had recommended that \$0.5M of the total \$1.5M TAMU administrative direct costs be cut, but did not specify where, as they had only the FY87 Program Plan as a guide.

L.Garrison gave additional information on the ice boat needed for Prydz Bay. The \$850 figure is the maximum cost. But because it was a originally a budget enhancement, science services have to be reduced now by \$850K. Some PCOM members felt that both Prydz Bay and the hard-rock guidebase had been on the science program long enough for TAMU to budget them in.

M.Kastner suggested that PCOM designate those budget items which should not be compromised.

The PCOM Chairman called a recess for the members to further discuss how PCOM should respond to EXCOM on the FY88 budget. After the recess, the following motion was forwarded:

PCOM Motion:

The Planning Committee affirms the proposition that the budget for standard operations should be approximately \$1.25 million less than the base budget, with the remainder reserved for those "special operations" necessary to meet the goals of COSOD I when required. This sum may be applied to special one-time purchases in years when "special operations" are not scheduled. (Motion Brass, second Larson)

Discussion:

M.Langseth said the motion should not be fixed in FY87 budget terms and suggested an inflation factor be embedded in the motion. Brass added that the NSF budget includes inflation and that eventually the non-U.S. contributions will have to increase. R.Jarrard added that, for example, the LDGO FY88 budget included a 3% increase in Schlumberger rates and a 1% total budget increase; he said that TAMU faces similar increases.

D.Heinrichs reported that the NSF inflation factor for FY88 over FY87 was 4%. At the last EXCOM meeting, the FY87 Program Plan was supposed to have identified long range impacts. EXCOM and the ODP Council projected the \$35.5M funding level based on the inflationary factor and the participation of the seventh international member; the figure represented real growth to the steady state program. With one fewer international partner, PCOM should now advise EXCOM on requirements for a long-range program constrained by the \$35.5M figure.

Brass reviewed budget definitions: "special operations" refer to occasional high-expense legs (hard-rock, high-latitude, e.g.); "standard operations" refer to standard legs in temperate regions; "special one-time purchases" refer to clear, one-shot costs (drillstring replacement, e.g).

PCOM discussed the need for special operations for certain COSOD objectives. M.Langseth pointed out that the envisioned goals of ODP, not COSOD, should be addressed in the motion, and Robinson added that ODP had defined new goals

since DSDP and COSOD I. Brass said that TAMU must state their one-time expenses, such as drillstring replacement, to PCOM so they can be incorporated in future program plans.

S.Gartner recommended that a percentage factor rather than a set amount per year be set aside from the base budget to be used for special operations, and the following amended motion was forwarded:

PCOM Motion: (Amended)

The Planning Committee affirms the proposition that the budget for standard operations should be approximately 4% of the base budget, with the remainder reserved for those "special operations" necessary to meet the goals of the ODP program. This sum may be applied to special one-time purchases in years when "special operations" are not scheduled. (Motion, Gartner, seconded Kastner)

Vote: 15 for, 0 against, 1 abstain

A second motion was then forwarded:

PCOM Motion:

The standard operations budget must include the on-going development of systems essential for the achievement of the goals of COSOD I. (Motion Brass, second Robinson)

Vote: 16 for, 0 against, 0 abstain

After some discussion, a third motion was forwarded:

PCOM Motion:

The Planning Committee supports the Budget Committee's recommendations that TAMU's budget cuts should seriously consider substantial reductions in the headquarters budget. TAMU's proposed FY88 budget cuts, essentially in the science costs, are not supported by the Planning Committee. (Motion Kastner, second Robinson)

Discussion:

Robinson said that TAMU's suggested budget cuts (staff scientists, computers, publications) were the most sensitive to the scientific community. Garrison responded that the TAMU Research Foundation requires the budgeted amount to run the program and suggested that PCOM request an audit if not satisfied with the figure. The program could not be run on one-third of the FY88 headquarters budget.

Brass, for BCOM, said that the recommendation was made on very little information from TAMU and if such a cut were detrimental to headquarters, then TAMU should specify what would be lost. Piasias added that some BCOM members were administrators of large programs and thought the \$1.7M figure was a large one. BCOM wanted feedback on the cuts that it had suggested. Brass added that LDGO explained the cuts to its budget for BCOM, and although they were not those recommended by BCOM, they were found acceptable. T.Pyle hastened to add

that an audit of the TAMU budget would not be possible before the April EXCOM meeting.

A vote was called on the motion with the following results:

Vote: 14 for, 1 against, 0 abstain

The Chairman proposed that PCOM review the FY88 science program before giving JOI specific input on the suggested cuts to the budget.

### SCIENCE OPERATOR REPORT

#### Leg 114 Update:

L.Garrison reported for TAMU.

The JOIDES RESOLUTION departed the Falkland Islands two-and-one-half days early as the fuel tanker was delayed, and therefore had time to rotary core the SA5 site to basement. Recovery in the weathered basalt was about 20%; chert and ice-rafted gravels were encountered.

A refueling operation out of S.Georgia Island was successfully carried out using the MAERSK MASTER as a fuel barge with a minimal delay to drilling operations.

The SA2 site was drilled to 518 mbsf but drilling was slowed by the core barrel jamming due to the granitic gravel and quartz-rich sand at the site. The ship was currently on the SA3 site, where sands were continuing to jam the hole.

#### Navidrill testing:

The first Navidrill was lost while testing the latching mechanism. The Navidrill was dropped down a length of pipe long enough to achieve terminal velocity. The latch sheared and both the Navidrill and a mud motor were lost. The back-up tool will be tested, using the sand line to lower it, at SA3. T.Francis made note that the tool was very important for the Kerguelen drilling and expressed his concern. Garrison said that Frederic Young, the engineer for the Navidrill was addressing the latching problem, and that his participation on the project and Leg 114 had been very welcome.

#### Future legs:

Staffing for Legs 115 is completed, and invitations issued for Legs 116 and 117, pending the decision on the 90oE Ridge site on 116.

#### Annual co-chiefs meeting:

Program suggestions resulting from the 26-27 March meeting of the Leg 108-112 co-chiefs included:



- \* Shipboard labs development, possibly with an ODP scientist to coordinate the labs and use of downhole tools.
- \* Improvements to the 3kHz seismic system.
- \* A second on-board freeze dryer.
- \* Better orientation for first-time co-chiefs and more information on ship-board structure.
- \* Nomination of co-chiefs 12 months before a cruise; reimbursement of U.S. co-chiefs with USSAC funds sooner post-cruise.
- \* An additional cryogenic magnetometer.

PCOM members who had been aboard the RESOLUTION also recommended that the food be improved, with the specific suggestion of less salt forwarded by G.Brass. M.Kastner also recommended that a second microbalance be added onboard.

#### Leg 113 Report:

Dr.Peter Barker, co-chief with Dr.James Kennett, gave the report. Three areas were drilled on Leg 113: the Maud Rise depth transect, the E.Antarctic margin (to study continental climate and pre-glacial influences) and the central Weddell Basin. Barker reported that every site was drilled, but not to the extent hoped. He believed the results would be valuable for planning the Leg 119 drilling.

A site by site description of the drilling was presented by Barker; although problems with hard/soft lithologies and a poor record of calcareous sediments were encountered, the co-chiefs believe that the core from the W5 location (Site 694) will yield new information on the glaciation of the Antarctic Peninsula. Barker reported that heavy ice hindered operations at this site. The S.Orkney margin sites were good Oligocene paleoceanic ones, and an opening of the James Bay at 25-30 mybp was determined. About 1300m were drilled at Site 695; unusual gas hydrate signatures (inversed polarity) were measured. XCB/APC failures at this and other Leg 113 sites were extensive.

Barker ended his report by stating that a more complete section with a good terrigenous signal will be necessary on the Antarctic shelf to sort out a pre-glacial history of the area. He said the Prydz Bay drilling will be one of the few opportunities to constrain the pre-glacial-into-glacial events.

#### Discussion:

Barker discussed the logging results from Leg 113. PCOM had required that W5 and W7 be logged, but the XCB failures (Site 695 - W5) would have required tripping the drillstring. Bad hole conditions prevented logging on W8. The only completely logged hole was at Site 693 (W-4).

Robinson asked how the Kerguelen legs would resolve questions on the Antarctic glaciation. Barker hoped that the lack of a Neogene into Paleogene carbonate section was a "quirk of the Weddell Sea". The Kerguelen record should be more continuous, with a northern expansion of the glacial front apparent in the ice volume record. Barker added that basement objectives from the mid-Cretaceous onward will relate well to the Mesozoic stratigraphic objectives.

Several PCOM members asked if the failure to reach basement reflectors on the leg was related to the planning of the leg or due to technical failures only. L.Garrison said that not enough contingency time was planned into the leg in order to maximize drilling time in the Weddell Sea. Garrison said that a report on the XCB failures would be included in the Leg 113 Preliminary Report.

Barker said that the ice boat not only "kept us in the hole", but kept passage speeds around 10 knots in conditions of fog, icebergs and darkness, and thus, was essential to the success of the leg. Barker did not advise using ice vessels for regional geophysical surveys during drilling operations.

Barker responded to additional questions on the logging program. Only one run on Site 693 was tried because the GST tool was not working; logging through the pipe was not considered. Garrison explained that the Operations Manager had to keep the pipe in the hole without circulation and the hole was too unstable. He added that the ODP policy continues to be that all loggable holes deeper than 400 meters will be logged, including through the pipe.

R.Anderson, Director of the LDGO Borehole Research Group, said that the nuclear/electrical/sonic combo needs two runs, not one. Garrison responded that two or three runs are recognized as standard, and logging estimates take this into account.

L.Garrison described the very efficient logistics for the crew change in the Falklands and said ODP owed a debt of gratitude to the United Kingdom and its troops stationed there.

#### WIRELINE LOGGING SERVICES REPORT

R.Jarrard reported for the Borehole Research Group. He focused on the reliability of ODP geochemical results, the Leg 113 results, and an overview of the downhole objectives in the Indian Ocean.

#### Reliability of ODP Geochemical Results:

Jarrard presented data from a Conoco test well (100% recovery) from the same downhole geochemical suite that ODP uses and from subsequent XRF analysis.

Error analyses for both major and trace elements was presented, with high standard deviation on Ur of particular note. Schlumberger has developed a spectral stripping technique for Ur. The Borehole Research Group wanted to try similar analyses on ODP cores, and used young basalts from Site 395A to test its reliability programs. Accuracy on Fe and Ca is not as good as industry

results, but Si and Al is comparable to industry. For Hole 504B, the accuracy of the geochemical combo was tested using an internal consistency approach: the gadolinium/titanium ratio was plotted relative to the chondritic ratio line to see how values down to the 2C dikes compared. The values obtained above the Layer 2B fault were skewed toward Ti depletion. Jarrard said that either the gadolinium values are bad or the Gd/Ti in cores is due to alteration effects. More rare-earth element analyses are needed to test these promising consistency approaches, Jarrard said.

In a similar approach, Mg/Ca was plotted against Al/Fe. The dikes at 2C plotted toward olive enrichment and Layer 2B above the fault was skewed toward plagioclase enrichment. Jarrard noted that high porosity and fracturing could affect these results.

#### Leg 113 Results:

Jarrard reported that two holes, 693A and 696 had been logged. At Hole 693A, resistivity and porosity results showed a major unconformity at 410 mbsf. Jarrard suggested that given the poor recovery at the site, enhancement of the amplitude spectra may yield some evidence of cyclicity. An analog logging tool was lost at Site 696, where 50m of logs were obtained; the tool was scheduled to be replaced by a digital model on Leg 114. At 696, pipe was taken out from the bottom of the hole and logs run at the same time. Overpressure below 600mbsf at Site 696 prevented further logging.

#### Leg 114 update:

Logs at Site 700 looked good, although the digital sonic tool failed and the back-up analog tool was used.

#### Update on logging program:

Jarrard presented graphs on holes lost for logging due to operations failures (e.g. core barrel or pipe sticking). A number of operations changes, especially in side-wall entry sub (SES) deployment, were effected through combined efforts of LDGO and TAMU (see Appendix D).

#### Discussion:

R.Anderson gave an update on logging program since the PEC report. Since Leg 107, only 76% of holes penetrating deeper than 400 meters have been logged compared to the previous 90%. Problems with open holes, stuck core barrels and circulation continue. Since Leg 107, 46% of the holes were logged with only the sonic and not the nuclear tool. Anderson said the Downhole Measurement Panel is very concerned with these results.

Solutions suggested by Anderson were to improve the XCB technology, to risk loss of the BHA more often and to log through the pipe. M.Langseth, DMP liaison, added that time is not budgeted for logging properly and asked for a review of the Indian Ocean program estimates.

### Logging Program in the Indian Ocean:

Jarrard showed a table of logging tools/objectives slated for the Leg 115-123 program, compiled with input from the DMP (Appendix E). The standard Schlumberger tools alone are planned for the majority of the legs. Much logging is planned for the SWIR program, including borehole televiewer (BHTV), and vertical seismic profiling (VSP) is recommended for Legs 117, the Kerguelen legs and Leg 123. The televiewer work on the Indian Ocean legs is partially in support of a DMP goal to compile a world stress map (relative magnitudes and direction) which would considerably broaden the scope of logging in ODP.

### Discussion:

Pisias said that the Indian Ocean drilling times included the extra downhole experiments; R.Anderson added that the hydrofrac test on Leg 123 would need a few extra days.

In response to concerns about DMP/LDGO directives for logging, Jarrard said that, in the past, logging had been neglected in the program planning. Liaisons have gone to the Indian Ocean and Western Pacific panel meetings, and logging is now being planned much earlier. Pisias added that SOHP is very positive about the Exmouth logging program. Francheteau said that the more science per hole the better, but PCOM should still direct decisions on the logging program. Pisias confirmed that the panels, then PCOM, should evaluate the plans.

R.Anderson mentioned that TAMU's new lockable flapper design should enable step-wise logging while drilling, so logging will not be delayed until the risky, deep parts of the hole. In conclusion, Anderson said that planning logging does not necessarily mean that it gets done and though the leg-oriented co-chiefs are not always to blame, he thinks a big change will be seen by shifting the logging to Science Operations. This of responsibilities has been done, and PCOM will wait to see positive effects.

## INDIAN OCEAN PLANNING

The Chairman opened the discussion by reminding PCOM of the possible change in timing of the Kerguelen Program. R.Larson, member to the Kerguelen Working Group (KWG) then gave an overview of the 18-month Indian Ocean program, constrained, he said by both weather and budget decisions.

### Legs 119 and 120 Planning:

Larson said that the KWG had devised programs with and without Prydz Bay (Appendix F). In general, the priorities of the KWG are:

- 1) The latitudinal/meridional transect for Neogene history;
- 2) The Paleogene-Mesozoic paleoenvironment;
- 3) The N-S paleoceanographic transect; and
- 4) The Kerguelen basement objectives;

The basic difference in the program with or without Prydz Bay is to better address basement objectives. The Kerguelen basement sites were shifted to the south to increase the probability of reaching basement (Miocene basalts?).

The Prydz Bay drilling anchors the latitudinal transect and is a unique place to see the signal of glacial drainage from the E.Antarctic ice sheet. As 65% of all glacial ice is in the E.Antarctic ice sheet, it drives the glacial climate. The Science Operator has estimated a 30-40% chance of drilling the planned sites and of achieving the desired scientific results in Prydz Bay.

Weather constraints have impacted the planning of the leg. Larson presented a map of the ice sheet by season. The KWG has devised a general drilling program to optimize the southern Kerguelen drilling (Appendix F). Leg 119 was arranged to include the N.Kerguelen sites (KHP-1, KHP-3, possibly SKP-1 or other single-bit sites) and the Prydz Bay. SKP-6B was designated the alternative to the Prydz Bay sites. Leg 120 was constituted by SKP-1, SKP-2, SKP-3 and SKP-4A. The placement of the four shallow Prydz Bay sites take advantage of the shallow (4-5°) dipping section and to optimize drilling in the area. The site survey did not provide crossing lines and the PPSP has said there may be some problems.

Garrison said the ice boat would be contracted only if the Prydz Bay sites are scheduled. He felt the sites were a gamble of time and money, and that contracting the ice boat will have a long-term impact on science services. Robinson and Francheteau argued for better site surveys before the drilling.

Pisias asked PCOM to first consider if the Prydz Bay drilling will be scheduled, then look at the specifics. The 10-day delay to Leg 119 appears to be a good compromise to get the best weather window. H.Beiersdorf presented the Southern Ocean Panel's suggestions for the Kerguelen program. Dropping the SKP-8 site is not supported by SOP and basement drilling on both Leg 119 and 120 is recommended. Garrison pointed out that both legs would run over the 61-day limit under SOP's plan.

A.Taira was concerned that only 4-5 days were scheduled for 1600m of drilling at KHP-3. Larson pointed out that the plans have been built with some redundancies and attempts had been made to prioritize the sites and to give the co-chiefs options depending on the weather conditions.

P.Robinson said that Prydz Bay was not worth \$1M for a 35% chance of success. H.Beiersdorf responded that ODP has drilled on less sophisticated site survey data and that the opportunity to study the glacial history of the margin should not be given up. Pisias agreed that the panel should not compromise the science on the budget issue.

L.Garrison presented a compilation of eight years of ice data from the Prydz Bay. Based on the history of consecutive weeks of ice-free conditions, he gave a 50% chance for favorable weather for the drilling. Several members acknowledged that including Prydz Bay will take time from the other Kerguelen sites and other legs. Brass was not convinced that the other Kerguelen sites did not need ice support. Barker said that ice reconnaissance by air was another option, but Garrison said the money for the ice boat would be budgeted

regardless.

After these discussions, the following motion was forwarded:

PCOM Motion:

That the Kerguelen Program will contain a transect of Prydz Bay. (Motion Brass, second Eldholm)

Vote: 8 for, 8 against, 0 abstain

PCOM Consensus:

That the vote on the inclusion of Prydz Bay be reconsidered after the delay to the rest of the Indian Ocean program will have been discussed.

Discussion:

Garrison said the delay could add extra days to the Leg 118 program. The downside of the delay was putting 3/4 of the Kerguelen program into a bad weather window. December 9 is the earliest start date.

PCOM Motion:

If Prydz Bay is not included in the Kerguelen program, then there is no justification for the delay to the rest on the Indian Ocean program. (Motion Brass, second Kastner)

Vote: 5 for, 10 against, 0 abstain

PCOM Consensus:

To adjourn and consider the Prydz Bay drilling as the first order of business the following day.

LEG 119 and 120 PLANNING, CONTINUED

The Chairman introduced the Prydz Bay discussions by noting that SOHP and PCOM had ranked the program highly on the science and votes on including the program should be considered a thematic not a budgetary issue. Larson presented the seismic section on the transect (500m holes at each of the four sites) and more fully described the times and objectives for the drilling.

The trade-off between science and the costs of the Prydz Bay drilling were discussed. PCOM members mentioned the loss of lithospheric objectives in other programs and safety as potential problems. Pisiias agreed that the program could be better documented, but that tremendous scientific benefits could result.

P.Barker (SOP Chairman) gave further details on the objectives of the Prydz Bay. A complete stratigraphic section and continental paleoclimate indicators make it the best area to see the early Neogene isotopic signal and get a pre-glacial record. Barker advised that the middle part of the section be drilled first for Neogene sediments. Several PCOM members were concerned that the ice boat would be needed for the other Kerguelen sites.

Garrison did not think that 3.5 days/site or 14 total days for the transect was enough and said other Kerguelen sites could be lost through delay. Larson told PCOM that the SPK-6B alternate site was a southern anchor for the latitudinal transect, but was not an alternate for the study of the E. Antarctic ice sheet.

The motion to include Prydz Bay was then reforwarded:

PCOM Motion:

That the Kerguelen Program will contain a transect of Prydz Bay. (Motion Brass, second Eldholm)

Vote: 9 for, 6 against, 1 abstain

Discussion:

R. Larson further described the weather window and the effects of delaying Leg 119 (Appendix G). M. Kastner asked why the long drilling on the KHP-3 site was justified as basement objectives were available at other sites (Broken Ridge, e.g.). Brass said no drilling to basement was planned on Broken Ridge, and KHP-3 was needed. Larson pointed out that the main objective at KHP-3 however is pre-Neogene stratigraphy. It is a possible re-entry cone site and SOP has suggested returning to KHP-3 on Leg 120 as an option. M. Langseth suggested that PCOM give the appropriate panels the timetable, and defer to their judgment on the sites. The following motion was then forwarded:

PCOM Motion:

The Planning Committee moves to adopt the Kerguelen Working Group's recommendations for the combined Leg 119-120 program prioritization. (Motion Larson, second Langseth)

Discussion:

The basement objectives of KHP-3 and KHP-4A were further discussed. To further delay planning the leg or to have the KWG meet again were rejected. Robinson requested that LITHP's minimum basement objectives (two sites, with one deeper) be incorporated in the planning.

Vote: 16 for, 0 against, 0 abstain

Related motions were forwarded:

PCOM Motion:

To accept Lithospheric Panel basement objectives as the minimum program (two basement sites, with one deep site to 200-300 m) and to include recovery from the northern and southern Kerguelen Plateau. (Motion Robinson, second Eldholm)  
Kastner

Vote: 16 for, 0 against, 0 abstain

PCOM Motion:

For accommodation of logistics and thematic considerations, SKP-8 and KHP-3 be viewed as the lowest priorities in the entire Kerguelen program. (Motion

Larson, second Brass)

Vote: 12 for, 0 against, 4 abstain

Discussion:

PCOM continued to discuss the merits of various combinations of Leg 119-120 sites. Major concerns were to obtain appropriate basement objectives, to get the most complete stratigraphic sections, and to stay within the 61 day/leg limit dictated by SEDCO. Planning in contingency time due to weather conditions was also considered important.

Francheteau suggested the combination of KHP-1 (7 day site) with the Prydz Bay sites (PB 1-4) for a total of about 53 days as a possible scenario for Leg 119. Weather contingency of about 10% and the option of re-entry at KHP-1 was suggested. KHP-4A could remain a back-up for basement objectives: [Note: This was a PCOM consensus but a subsequent consensus added the SKP-6A site to the Leg 119 program.]

M.Langseth presented the DMP recommendations and estimated times needed for the Kerguelen program (VSP and BHTV). PCOM members agreed that the times for these experiments kept Leg 119 within the 61 days.

PCOM Consensus:

That the Planning Committee adopt the Downhole Measurement Panel's recommendations on vertical seismic profiling and borehole televiewer experiments on Leg 119.

The Science Operator requested that SKP-6A, placed on Leg 120 by the KWG, be moved to Leg 119 and that SKP-1 be shifted to Leg 120 in order to optimize on ice conditions in Prydz Bay. PCOM agreed and the following program was then endorsed:

PCOM Consensus:

The Kerguelen Program shall consist of the following:

Leg 119:

<u>Sites</u>	<u>Time Estimates (days)</u>
KHP-1	7.3 (+1.2 for VSP/BHTV)
PB-1	3.5
PB-2	3.5
PB-3	3.5
PB-4	3.5
SKP-6A	5.7
Transit	24.8
	=====
	53.0 Subtotal
Weather contingency	5 to 6 days (10%)
	=====
	ca. 59.0 days



Leg 120:

<u>Sites</u>	<u>Time estimates (days)</u>
SKP-1	5.3
SKP-2	5.6
SKP-3	11.4 (+.9 for VSP)
SKP-4A	12.5
Transit	19.0
	=====
	54.7 Subtotal
Weather contingency	5 to 6 days (10%)
	=====
	ca. 60. or 61 days

PCOM Consensus:

That the start of the Kerguelen Program be delayed 10 days, to now begin on 19 December 1987, in order to move the Prydz Bay drilling into a more favorable weather window.

LEG 115 PLANNING

N.Pisias opened the discussion with news from the recent site survey. Channeling and slumping detected at the Carbonate Saturation Profile sites will not allow relocating the sites as suggested by SOHP. The Indian Ocean Panel has recommended that the Droxler site (MLD-2) be added to the program if time allows.

Garrison said the time allotted for the primary program has been 38 days and 41 days are available. Time to drill to MLD-2 site is about 60 hours. Pisias reported that one other basement site has been recommended by co-chief R.Duncan.

M.Langseth presented the DMP recommendations for Leg 115: to log the deepest three holes (CARB-1, 1600m with 50m into basement, MP-3 and MP-2). Langseth said that drilling 50 m into basement on these sites would help interpretations of the unconformities.

PCOM Motion:

To accept the program for Leg 115 as previously outlined (MP-1, MP-2, MP-3 and the CARB 1-4 transect), to include the Droxler/Maldives site (MDL-2) as a back-up site if time is available and to include time for the logging program as outlined by the Downhole Measurement Panel.

Vote: 15 for, 0 against, 1 abstain

LEG 116 PLANNING

(G.Brass absented himself during discussion of this leg.)

R.Larson gave an update on the site survey data of this leg (Intraplate Deformation plus the N.Ninetyeast Ridge site). Sites 1 (a stratigraphic reference hole), 2,3, 4, 4A, 5 (with alternate 5A) and 6 have been proposed. The two objectives for the Intraplate work are to: determine the timing on the deformation, and a geotechnical/geohydrologic program (drill Site 5 or 5A into a reverse fault and test advective system; drill/log Site 6, a high heat flow site). Piasias added that packer experiments are planned at Site 6.

Langseth reported on the DMP's recommendations: all five holes should have standard logging, BHTV at Sites 1 and 5, and packer and heat flow measurements at 5 and 6. Jarrard said that the logging would require .5 days extra for the BHTV work. The revised Leg 116 program is shown on Appendix O. [NOTE: See planning discussions for Leg 121 for the status of the Ninetyeast Ridge sites.]

PCOM Motion:

To adopt the Downhole Measurement Panel's logging and downhole experimentation plan for Leg 116. ( Motion Kastner, second Larson)

Vote: 15 for, 0 against, 0 abstain

PCOM Consensus:

The drilling schedule for Leg 116 shall consist of Sites 1,2 or 3, 5 and/or 5A and 6 to be drilled in that order for a total of 48.5 operational days.

[NOTE: At the 15 April PPSP meeting, Site 5 was not approved. The other primary sites and some alternates were approved. PPSP said, however, that if any hydrocarbon gases are detected at any site, approval of any subsequent sites would be in question.]

LEG 117 PLANNING

Piasias reported that the IOP recommendations for the Neogene Package matched those of PCOM. L.Garrison presented the revised drilling and logging estimates for the leg. Co-chief W.Prell had asked for double APC/XCB on each site and NP-2 has been designated a geochemical reference site as well. The new times are still within the limit for the leg (48.5 days plus transit).

M.Langseth presented the DMP recommendations. Standard Schlumberger runs (plus high-resolution resistivity tool, if ready) for NP-2,3,4,5,6 and 7, BHTV at NP-6 and 7, VSP at NP-6 and BHTV at NP-6 and 7 are recommended. If available, the Barnes pore water sampler is recommended for all holes.

Jarrard did not strongly advise the BHTV work as it is critical to save a working tool for Leg 118.

PCOM Consensus:

To take the Downhole Measurement Panel's recommendations for Leg 117 as a "strawman", without the use of the borehole televiewer, so that it is available for use on Leg 118. Vertical seismic profiling should be included at Site NP-6.

## LEG 118 PLANNING

(P.Robinson, a co-chief for Leg 118, absented himself during these discussions.)

R.Larson gave an overview of the IOP recommendations, in basic agreement to those developed by PCOM at the Hawaii meeting. If time beyond 36 operational days is available, then IOP recommends drilling across the "gravel pit" to establish a stratigraphic transect across the displacement zone.

Successful deployment of the guidebase continues to be long-term objective of the program. L.Garrison presented a graphic of the engineering design of the guidebase (Appendix H). With camera surveying and reaming and casing to 280 meters, at least 23 days are required. This estimate assumes ideal conditions, and 25 days is a more realistic figure. Kastner suggested that the survey work might take even longer and wanted to leave flexibility to the co-chiefs. Langseth said that pogoing before setting the guidebase would provide more information on the ultramafic stratigraphy and to deploy the guidebase "blithely" was a gamble.

Brass referred to the previous hard-rock legs (106, 109) and said the poor performance of the single-bit attempts was also a risk. Francheteau said the scientific value of the median ridge was weak and the guidebase deployment mostly of engineering interest.

Pisias posed the question of whether to add the 10 days gained from the Leg 119 delay to Leg 118. Garrison presented the drilling schedule as it had developed thus far. Langseth then presented the DMP recommendations for the SWIR program: 10.5 days of logging and experimentation if a 250-300m hole is achieved. Recommended tools and times included:

Std.Schlumberger suite (with temp.)	45 hours
BHTV/magnetometer	16
Multichannel sonic tool	13
Gyro magnetometer (USGS tool)	15
Susceptibility tool	8
Packer	48
Wireline packer/Kuster sampler	14
Complex resistivity	12
Dual laterolog	11
Flowmeter	?
VSP	18

### Discussion:

Brass recommended that if an extra 10 days were added to Leg 118, that it be used for pogoing. Kastner recommended that two of the days gained through the Leg 119 delay be added to Leg 116 instead.

PCOM Motion:

To add the ten days gained through the delay of Leg 119 to the Southwest Indian Ridge Program, with deployment of the guidebase a first priority. With the additional time, the pogoing of the gravel pit is an option.

Vote: 12 for, 3 against, 0 abstain, 1 absent

LEG 121 PLANNING

R.Larson presented an update on the Broken Ridge program. Four holes are proposed, each 450m deep, with one XCB/APC run through the younger material and the rest rotary cored.

L.Garrison had information from J.Weissel on his priority sites (B1-4); Garrison also suggested adding the 90ER-1 to the leg. The Indian Ocean Panel has indicated that 90ER-1 is their priority site on the ridge. Garrison presented TAMU's estimations of drilling times for the program (Appendix I) with a total time of 52 days allotted. Garrison also said some sites may have safety problems; he added that better definition of site locations is needed from J.Weissel.

The DMP had no special programs for this leg, although the Borehole Group has recommended BHTV at the 90ER-1 site along with standard Schlumberger. Garrison said about 26 hours were planned for logging for two 90ER sites.

Pisias said that the drilling priorities for the IOP were: the four Broken Ridge sites (BR 1-4) and the northern and central Ninetyeast Ridge sites. The IOP will be asked to provide revised drilling times for the program by the August PCOM meeting. Francheteau indicated that Seabeam data were now available for the Broken Ridge.

LEG 122 PLANNING

Pisias opened the discussion on the Exmouth program: as liaison to the last SOHP meeting, Pisias reported that SOHP had ranked the sites in the following order: EP-7, EP10A, EP2A, EP6 and EP9B. The potential safety problem of site EP6 were discussed, but obtaining the Triassic section there is a SOHP priority. SOHP has also indicated that all Exmouth sites are more important than a second Argo Abyssal Plain site. The following motion was forwarded:

PCOM Motion:

That Leg 122 shall consist of sites EP6, EP7, EP2A and EP10A. EP9B shall be moved to the Argo Abyssal Plain program (Leg 123). EP6 is a possible re-entry site, and a 52 day program, with logging, is recommended.

Vote: 16 for, 0 against, 0 abstain

## LEG 124 PLANNING

The lithospheric objectives of the Argo leg were discussed. Robinson (LITHP liaison) said that the panel would like a deep reference hole (>500m) and would ideally like one on the Exmouth Plateau and another at AAP1B. Brass added that ridge crest geochemistry was last investigated on DSDP Leg 27.

After a short discussion on the Argo Abyssal Plain drilling and the Indian Ocean Panel's recommendations for the leg, the following consensus was reached:

### PCOM Consensus:

Leg 123 will consist of re-entry Site AAP1B (32.2 days scheduled) and EP9B. Coring to 300m of basement should be undertaken at AAP1B, and if time allows, to greater depth. For logistics purposes, the EP9B site (8 days estimated) will be drilled first. The total leg time recommended is 40.3 days.

The Downhole Measurement Panel's recommendations for the leg will be discussed at the August PCOM meeting. Jarrard mentioned that hydrofracture experiments at AAP1B, requiring four extra days, are recommended by the Borehole Group.

[NOTE: Appendix J is the tentative ODP drilling schedule for Legs 114-123 as prepared at this meeting by L.Garrison.]

## CO-CHIEF SELECTION

The Science Operator asked for suggestions for co-chiefs through Leg 121. SOP recommendations, as well as names from PCOM, were added to the list compiled from other panel suggestions. Appendix K is the list as forwarded to the Science Operator.

## FY88 BUDGET PRIORITIES

The budget alternatives presented by Tom Pyle were addressed, as suggested, after the review of the Indian Ocean science program.

The Chairman directed PCOM to prioritize the cuts suggested by Pyle (Appendix L) in order to reach the \$1.5M reduction necessary to include the Prydz Bay drilling. Piasis reminded PCOM that it had asked to be included in the budget process and now EXCOM would need to know what items in the science plan were expendable. From the long-range goals of the program and the views forwarded by PCOM, the following items were considered "non-negotiable" ones:

Reduce/stretch out Mining Coring System (70K), \$100K  
high-temperature (20K) and drill string  
inspection

Eliminate use of guidebase, Leg 118 (SWIR) \$163K

The proposed cutbacks to ODP publications were discussed at length. As the visible product to the program, the publications quality was seen as important to the programs's success. The author-prepared camera-ready copy for the Part B volumes was seen by some international members as a burden considering that translation was also necessary. Pisiias mentioned that the IHP has said the uncoated paper proposed for Part A will degrade the core photos. The following motion was forwarded:

PCOM Motion:

To refrain from budget reductions that will deteriorate the quality or timeliness of the Part A and Part B ODP publications. (Motion Robinson, second Eldholm)

Discussion:

O.Eldholm said that reductions to the TAMU staff scientists would automatically mean less coordination efforts for Part B proceedings. Pyle mentioned that TAMU had proposed cutting the Part B altogether.

Vote: 5 for, 8 against, 3 abstain

PCOM further discussed the publications issue. Gartner gave a review of the original intents of the ODP volumes: preliminary data were intended for Part A and synthesis papers for Part B. Delays in Part B were from previous budget shortfalls, but TAMU was now on line to produce them at PCOM's request. Outside publication of the Part B or subscriptions to it were not seen as cost-effective options.

Eldholm reported on his experiences with preparing a Part B volume. He said Part A is an updated shipboard report and that good syntheses are possible from the Part B in that 25-27 shipboard scientists have an obligation and a deadline to produce it. Larson agreed that the team approach is necessary to produce a stratigraphic framework for each leg. The following motion resulted from these discussions:

PCOM Motion:

To accept the proposed cut, namely requiring author-prepared camera-ready copy for the Part B ODP Proceedings, for a projected savings of \$171K to the FY88 budget. (Motion Taira, second Brass)

Vote: 12 for, 4 against, 0 abstain

[NOTE: This motion was subsequently rescinded when the projected cuts list as a whole was voted on. See Appendix L.]

G.Brass reiterated his suggestion to put 1000 copies of each Part A volume on microfiche and the suggestion was added to the list of potential program cuts. Larson recommended that a \$200K budget cut to TAMU headquarters also be added.

The Chairman called on PCOM to rank the list as a whole to achieve the recommended \$1.5M reduction, adding that PCOM would now have the opportunity to

go through a process similar to proposal rankings by the panels. The rankings would be presented at the beginning of the next day's meeting. P. Robinson expressed his objections to the process, stating that items other than those named should be considered. [Results of vote are shown in Appendix L.]

#### PLANNING FOR WESTERN PACIFIC PROGRAM

Pisias referred PCOM to the overview of the WPAC third prospectus in the agenda book. The 12 legs were arranged according to the typhoon weather window and included the core program identified by PCOM at the Hawaii meeting. As liaison at the last SOHP meeting, Pisias related that panel's objection to their top-priority program, the Great Barrier Reef, not being included in the core program.

A. Taira (WPAC liaison) explained how the prospectus had evolved by using the "core program" approach from the Indian Ocean program as a model. The panel developed both 9 and 11-leg scenarios, and took the nine top-ranked programs and translated them into 11 legs as well. Robinson expressed his concern that the JOIDES Journal report on the Hawaii PCOM meeting had misrepresented this process. Some confusion over the motions at the last PCOM meeting describing length of time for drilling in the Pacific was expressed by other PCOM members. It was agreed that the three years in the Pacific was intended to represent a planning figure only. Francheteau called for a motion regarding the double circumnavigation issue as interpreted from the COSOD I document, which he considered relevant to the issue of time allotment for the Pacific program:

#### PCOM Motion:

That the Planning Committee should not require the double circumnavigation by the drillship for the remainder of the original ten year program set down at COSOD I. (Motion Larson, second Brass)

#### Discussion:

Robinson agreed that PCOM should treat the important science in an area and not set arbitrary limits. Brass pointed out that the COSOD I document did not mandate the double circumnavigation, but recommended a global program that would terminate in 1999 near Panama. He saw no constraints in the COSOD document.

Vote: 16 for, 0 against, 0 abstain

Pisias then called for a clarification of the instructions for the Western Pacific program and the following motion was forwarded:

#### PCOM Motion:

For clarification of the Pacific planning, the Planning Committee reaffirms its advice to CEPAC, WPAC and the thematic panels that WPAC plan an approximately 22-month drilling plan based on their top nine programs and that CEPAC utilize an 18-month guideline for CEPAC planning. CEPAC shall include scenarios with and without a three-leg East Pacific Rise program. (Motion Larson, second Brass)

Discussion:

Taira said that WPAC was given 18 months for planning but believed the science justified a 22-month program; he encouraged PCOM to treat the CEPAC program similarly. Piasias suggested that CEPAC present well-justified, well-documented thematic programs; the 18-month guideline should be recognized, but is not a set limit.

Vote: 11 for, 4 against, 1 abstain

Geochemical reference holes:

PCOM discussed the WPAC program response to geochemical reference holes. Taira said that sites in the Marianas, Bonins, seamounts and near seamounts had been presented by WPAC member J. Natland, but that the issue was yet to be settled. He said that the four-hole program requested by LITHP was too extensive and only the Bonin shallow site looked definite. Robinson presented LITHP's recommendations for the sites; they seek a geographic distribution of lithologic end-members, plus a vertical section to sample various trench materials. Robinson said the Bonin program was well-defined scientifically.

Larson said that CEPAC could possibly endorse the late Jurassic reference site off the Marianas trench. Robinson added that the Natland-Langmuir proposal is a highly-ranked global program.

PCOM discussed the thematic ranking of WPAC proposals and whether PCOM should further debate the program WPAC had designated. In reference to the previous ranking of the Great Barrier Reef program, Brass pointed out that many PCOM members were unaware of the relocation of sites. Kastner acknowledged the excellent prospectus provided by WPAC; she suggested that PCOM evaluate the rankings on their thematic basis only. Brass agreed that PCOM should rank the Western Pacific program and suggested that PCOM discuss this in detail at the next PCOM meeting.

Piasias assigned "watchdogs" for the WPAC programs with instructions that they were to report back to PCOM at the August meeting. The assignments were:



## WPAC PROPOSAL WATCHDOGS

<u>Priority / Program</u>	<u>PCOM Watchdog</u>
1. Banda-Sulu-SCS Basins	Brass
2. Bonin I	Robinson
3. Lau Basin	von Rad
4. Vanuatu	Cadet
5. Japan Sea	Langseth
6. Nankai	Kastner
7. Great Barrier Reef	Gartner
8. Sunda	Francis
9. Bonin II	Robinson
10. Nankai Geotechnical	McDuff
11. SCS Margin	Taira
12. Zenisu Ridge	Larson

Taira reminded PCOM that programs 10-12 were still evolving and could well change in future rankings. The LITHP was to be given instructions on defining the geochemical reference holes and the Great Barrier Reef proposal would be reconsidered by the thematic panels. Piasis determined that, based on the strength of the prospectus, WPAC would not need to meet this summer.

### RESULTS OF BUDGET VOTING

The ranking of the TAMU budget cuts was presented. PCOM determined that separating out the item on camera-ready Part B manuscripts was not advisable, and the ranking would be redone to include it.

#### PCOM Consensus:

The previous vote for having authors prepare camera-ready Part B publications was rescinded.

Piasis said that this list would be presented at the budget discussions at the EXCOM meeting. The final ranking appears as Appendix L.

PCOM reconvened and Piasis introduced Dr. Leonard Johnson, director of the Office of Naval Research Arctic drilling program who would present information on the recent Arctic drilling workshop.

### CENTRAL AND EASTERN PACIFIC PLANNING

The Chairman opened the discussions by noting that CEPAC had been given instructions after the Hawaii PCOM meeting to begin ranking and draft a preliminary prospectus; only SOHP has met since the last PCOM meeting to add its thematic input to the CEPAC program.

Piasis offered to turn the Chairmanship over to R.Larson for the CEPAC

discussion as he had a proposal under that panel's consideration; Larson pleaded a similar conflict of interest.

PCOM agreed that the program was in a preliminary stage and that proponents did not have to leave for these discussions.

An overhead with CEPAC's recent recommendations was shown (Appendix M). Coulbourn (CEPAC liaison) called the results of CEPAC's 30-31 March meeting a "initial first preliminary prospectus." The packages were deliberately not ranked as CEPAC did not wish to set priorities when site surveys are pending. He said CEPAC would have prioritizations for the next PCOM meeting. Coulbourn said "watchdogs" had been set up for the packages listed.

R.Larson asked about general ship tracks for the program, specifically if any packages that could be inserted in the WPAC programs had been identified. Piasias said that WPAC has tentatively included the Ontong-Java Plateau, a priority CEPAC package, in their drilling track.

Piasias said the LITHP and TECP would be asked to look at the CEPAC program in the same detail as SOHP had and have it available 3-4 weeks before the next PCOM meeting. CEPAC will be instructed to incorporate the rankings from the thematic panels into their next prospectus. Taira asked that the prospectus have a "thematic overview" (two or three pages) at the beginning and Kastner requested that the approximate number of legs required be identified.

#### PLANNING COMMITTEE LIAISONS

The Chairman noted that the panels had asked for more effective PCOM liaison at the Annual Meeting. A proposal from the JOIDES Office was presented in which liaison duties reflected geographic distribution and member expertise. A U.S. and non-U.S. member was suggested for each of the thematic panels to assure attendance to these important meetings. The listing was as follows:

Panel list: LITHP, SOHP, TECP, ARP, CEPAC, IOP, SOP, WPAC,  
DMP, IHP, PPSP, SSP, TEDCOM

	<u>Rotation Date</u>	<u>Present liaison (and other jobs)</u>	<u>Proposed new liaison</u>
H.Beiersdorf	87	SOP	
(U.von Rad)	--		SOHP, IOP
G.Brass	91	-- (BCOM)	SOHP
J.-P.Cadet	--	ARP, IHP	ARP, IHP
B.Coulbourn	90	CEPAC, TECP	CEPAC
O.Eldholm	--	--	TECP
T.Francis	--	SSP, TEDCOM	SSP, TEDCOM
S.Gartner	89	IHP, SOHP	IHP
M.Kastner	89	IOP, SOHP	LITHP
M.Langseth	91	SOP	DMP, SSP
R.Larson	88	IOP (K-WG)	IOP, CEPAC
R.McDuff	88	DMP, LITHP	DMP, SOP
N.Pisias	90	PPSP, SSP (BCOM)	PPSP, WPAC, SOP*
P.Robinson	--	TECP, LITH	LITHP
D.Ross	--	--	ARP
T.Shipley	90	ARP, CEPAC	TECP
A.Taira	--	WPAC	WPAC

\*Only if other liaison cannot attend.

Listed by panels the proposed liaisons are:

LITHP: Kastner / Robinson	WPAC: Pisias / Taira
SOHP: Brass / von Rad	DMP: Langseth & McDuff
TECP: Shipley / Eldholm	IHP: Gartner / Cadet
ARP: Ross / Cadet	PPSP: Pisias
CEPAC: Coulbourn & Larson	SSP: Langseth / Francis
IOP: Larson / von Rad	TEDCOM: Francis
SOP: McDuff & Pisias	

Pisias said that the listed pairs should decided who will attend a given meeting, and report the choice to the JOIDES Office.

#### PCOM Motion:

The Planning Committee accepts the new PCOM liaison designations to become effective on 1 May 1987, after the next Tectonics Panel meeting. (Motion Kastner, second Coulbourn)

#### Discussion:

PCOM did not consider having U.von Rad serve on IOP a conflict of interest; Pisias explained that he followed the past PCOM Chairman's example by placing himself on the regional panel most active in the planning process for PCOM.

Vote: 16 for, 0 against, 0 abstain

## PRIORITIZATION OF DMP DEVELOPMENT RECOMMENDATIONS

M.Langseth, DMP liaison, reported that the following recommendations were seen as most important to the panel:

1. Physical properties lab upgrades (TAMU)
2. High temperature logging
3. Long-term observations

The recent physical properties workshop (USSAC), convened by Dan Karig, helped to define the physical properties prioritizations. Langseth said that downhole measurements were an important legacy of ODP and that new, high resolution logging tools will be important for correlations with the core record.

Pisias said that any recommendations on upgrades would have to go through PCOM and not directly to TAMU. Robinson wondered about the dollar impact of the upgrades considering the current cutbacks. Brass pointed out that PCOM may lack the expertise to decide on the more sophisticated tool's value to the program. Francis agreed that ODP petrophysics were not "state-of-the-art" and encouraged upgrade of the physical properties measurements.

Langseth suggested a specific working group to focus on the workshop recommendations as even DMP may not be expert in them. He added that many recommendations referred to increased frequency of measurements and thus, would not have a budget impact for new development.

### PCOM Motion:

A modest, one time meeting, to be attended by three or four experts on downhole measurements, shall be held in conjunction with a regularly scheduled DMP meeting to discuss recommendations for physical properties measurements for the ODP. (Motion Brass, second Kastner)

### Discussion:

Langseth suggested that such a group would benefit from meeting with TAMU staff and possibly touring the shipboard labs. Dan Karig, Bob Carson and Elliot Taylor (TAMU) were several names suggested by PCOM for this ad hoc group.

Vote: 14 for, 1 against, 1 abstain

### Vertical seismic profiling:

In response to a PCOM request on VSP, Langseth reported that it should not be a routine run, but based on specific proposals. A USSAC workshop is being planned to address VSP. Brass asked if the program needs to invest in a tool, and suggested a separate NSF proposal as a means. Langseth said the tool would most likely be placed with the borehole research group. He said it was important for the interest in VSP to come from the scientific community. Eldholm wanted to see more VSP proposals and equipment; he believed it should be available on every leg with a geophysics-oriented co-chief in charge. Langseth responded that the DMP does not want to put VSP in its priorities list as they want an approved technical institution to take the lead on it.

Langseth said he would report a strong interest in VSP by PCOM back to the DMP.

Logging through the pipe:

DMP was asked to address the quality of logging through the pipe for this meeting. Langseth reported that the geochemical combo (neutron/clay tools) could get a muted signal through the pipe although two logs would have to be run due to interference from the pipe joint. Such logging is worthwhile as it is often the only method in an unstable hole. Logging through the pipe and the associated risk to the drill pipe has been discussed with B.Harding at TAMU. Jarrard reported that logging through the pipe was being done on Leg 114.

Budget impact of DMP recommendations:

DMP priorities for the current fiscal year are:

1. Temperature tools	\$30K
2. User software/data dissemination	\$20K
3. Formation microscanner	\$150K

Langseth said that the formation microscanner is important for Leg 117. The possibility of leasing the tool was discussed. DMP recommends the purchase of the microscanner over the acquisition of the third wireline packer.

Langseth discussed the magnetometer needed for Leg 118. Although the USGS tool might be available, purchase of one is recommended. Beiersdorf said the German gyro and magnetic susceptibility tool might not always be available; Francheteau noted that the French are working on a new tool.

Beiersdorf asked that PCOM carefully think through downhole experiments as they are at the expense of drilling. He recommended a PCOM policy be set up for such experimentation. Brass also mentioned the funding needed for new tools .

Jarrard responded that a policy would be helpful but that the goal of his group is to log without taking time from the drilling operations with a separate run. Langseth reiterated that downhole experiments must have a scientist identified with the project and should be approached with flexibility in the programs. Brass asked that the thematic panels and DMP formulate a policy relating specifically to the use of special instruments. Langseth said that the recent workshop on wireline re-entry did address some of these concerns and that a draft "white paper" was in review for presentation at COSOD II.

Taira asked that a policy on long-term monitoring, such as the Japanese-U.S. joint venture for temperature measurements off Nankai, be considered as well. He mentioned the recent ridgecrest tomography proposals as particularly promising, but WPAC does not know the mechanism for handling such proposals. Piasias said that these ideas would have to be addressed for budget impact as well.

## PANEL MEMBERSHIP

Suggestions for new panel members from the IOP (from Larson) and SOP (from Beiersdorf) were added to the list compiled by the JOIDES Office. Kastner wanted PCOM to review the representation to SOHP and LITHP so that sediment diagenesis was more thoroughly covered. Robinson agreed that this discipline was part of the LITHP Terms of Reference.

### PCOM Motion:

That a sediment geochemist with expertise in diagenesis be placed on the Lithosphere Panel. (Motion Kastner, second Robinson)

[NOTE: Vote not taken on this motion but PCOM later recommended that names of inorganic geochemists be forwarded for panel replacements.]

### Discussion:

A more general discussion on the panel structure evolved from this motion. Francheteau asked if any change was envisioned to the current structure and whether thematic interests would be strengthened. Kastner mentioned that the COSOD working groups do not follow the current panel structure and that JOIDES panel structure would not be covered at COSOD II.

### PCOM Motion:

The Planning Committee will initiate a review of the advisory panel structure beginning at the August PCOM meeting. A full review of the structure will occur at the winter Annual Meeting with the Panel Chairmen present.

Vote: 16 for, 0 against, 0 abstain

Pisias said that the thematic panels would be asked for their initial input to the issue. He said that the thematic/regional panel interactions had improved since the last review of the structure. Larson added that COSOD II may have long-term impact on the advisory structure.

### Membership changes:

The panel membership changes were discussed by PCOM. The following recommendations were made:

LITHP: Sediment geochemist slot open  
Nominations: Elderfield (U.K., member-at-large)  
D. Creer (Princeton)  
*Creer*

SOHP: Rotating off: Arthur, Hay, Tauxe  
Nominations:

Geochemist: Froehlich (LDGO), Baker (Duke)  
Paleomagnetist: Kent (LDGO), Channel (Florida)  
Oceanographer: Berger (SIO), W. Curry (WHOI)

DMP: Four slots open  
Nominations: Givens (Mobil)  
Sondergeld (Amoco), alternate Cheng (MIT)  
Carson (Lehigh)  
Porter (U. Washington)

WPAC: PCOM did not recommend that Ingle delay his rotation Taira  
suggested that his replacement be a biostratigrapher, and WPAC will be  
asked for additional names for  
consideration.

CEPAC: Rotating off: Mammerickx  
Nomination: D.Rea (Michigan)

IOP: Rotating off: J.Curray, J.Sclater  
Nominations: Davies (U.Texas)  
E.Vincent (France)  
Haq (Exxon)  
W.Wise (Florida State U.)

[Note: T.Davies absented himself during this discussion]

SOP: Rotating off: J.Anderson, D.Elliot, J.Weissel  
Nominations: Cooper (USGS)  
W.Wise (Florida State U.)  
P. Webb (Ohio State)  
H.Thierstein (ESF)

#### ARCTIC DRILLING

Dr. Leonard Johnson (ONR) thanked PCOM for the opportunity to describe the work of the Arctic drilling group. He said that two committees, the ICL (Lithospheric group) and the IUGS were working together to define Arctic drilling priorities. A meeting was held this past fall in Halifax to discuss the technical feasibility of Arctic drilling, and the group determined that appropriate technology did exist. Steve Blasco, the convener of the workshop, is now addressing the site surveys required for such work.

Dr. Johnson presented an informative overview of the Arctic scientific interests and various projects such as the geophysical surveys of the Alpha Ridge. He said that different types of platforms will be necessary for some of the work planned (such as man-made islands, existing drillships, and concrete drilling platforms). Johnson said the Canadian Class B icebreaker currently being set up for drilling would be a possible source of more core from this area.

The Arctic Group is planning a non-thematic presentation, possibly by L.Meyer, at COSOD II. Eldholm mentioned that the ESF has an interest in high-latitude drilling and believe drilling in the Bering, Labrador and Greenland Seas can be addressed with existing technology.

Johnson said there is much support for high-latitude drilling. His group would like to informally ask the JOIDES PPSP to serve as a resource to his ad hoc group. Johnson said that sites had not yet been prioritized. Johnson requested that Steve Blasco attend a safety panel meeting; L.Garrison suggested he bring information on the types of drilling problems anticipated. Johnson said that Soviet scientists are aware of the Arctic group. In conclusion, Johnson promised to keep PCOM informed of continued developments from the Arctic group.

#### ANTARCTIC DRILLING

H.Zimmerman, from the Polar Earth Sciences Program at NSF, said that his group has been sponsoring shallow Antarctic drilling. He wants to use the JOIDES safety panel as an advisory resource for their efforts (about one hole per year).

#### PCOM Motion:

The Polar Earth Sciences Program of the National Science Foundation, (a funding agency of the ODP), shall have informal access to review by the JOIDES Pollution Prevention and Safety Panel of their drilling plans provided that no liability to ODP is incurred. (Motion Brass, second Piasias)

Vote: 16 for, 0 against, 0 abstain

#### CITATION OF ODP PROCEEDINGS VOLUMES

At the January PCOM meeting, the following motion on the citation of the ODP Proceedings was forwarded:

That the suggested citation of the initial ODP Proceedings follow the format developed for the DSDP Initial Reports, with the addition of the statement identifying the TAMU as staff scientist as the volume's "editor" or "coordinator".

R.Larson withdrew his motion, asking if there had been input from the co-chiefs scientists at their recent meeting. E.Kappel said that the co-chiefs wanted to reserve choice for the citation as was done with DSDP volumes. PCOM members, especially those who had served on cruises, added their views. Coulbourn, who had edited volumes at DSDP, said that the contribution by the staff scientists varied greatly according to the interest or disinterest of the cruise co-chiefs.

Robinson said that the staff scientist is given status as a "third co-chief" if named in the cite.

#### PCOM Motion:

That the citation of the ODP Part A proceedings should follow the example of the DSDP Volume 85, namely, that the co-chiefs be cited for the volume and the staff scientist and/or editor be identified apart from the participating scientists. (Motion Kastner, second Francis)



Vote: 10 for, 4 against, 2 abstain

PCOM further discussed the inclusion of "auxiliary science" such as site surveys or ice boat science. Gartner, IHP liaison, said the panel did not separately address the issue as yet. He acknowledged that the one-year rule stands for requests for drilling data by scientists involved in the site surveys.

#### POSSIBLE CHANGE IN PCOM TERMS OF REFERENCE

A change in PCOM's Terms of Reference had been requested by NSF so that a four year general track for the drillship is outlined. Piasias said the change would be reflected in future program plans and communicated to EXCOM at its next meeting.

#### PCOM Consensus:

The Terms of Reference for the Planning Committee can be changed to reflect a period planning four years in advance of the drillship (instead of the previously mandated "three" year period).

#### OTHER BUSINESS

The Chairman gave his parting remarks to PCOM on the advice he and Garry Brass would bring to EXCOM as Budget Committee members.

P. Robinson asked that the minutes of this meeting formally state his dissatisfaction with the structure of the COSOD II working groups.

H. Beiersdorf gave his farewell to PCOM and announced he would be succeeded by U. von Rad. Beiersdorf will continue to serve as the German ODP coordinator until a replacement is nominated. He told PCOM that BGR Marine Geology and Geophysics is facing funding difficulties and he has asked EXCOM members to support this cause to ensure continued site survey support to ODP.

The Chairman thanked Beiersdorf for his service to the Ocean Drilling Program and for releasing his able assistant at BGR to fill the position of non-U.S. liaison in the JOIDES Office.

#### Future meeting schedule:

A. Taira provided information on hotels and field trips for the upcoming PCOM meeting scheduled for 25-29 August 1987 in Nikko, Japan (Appendix N).

There being no further business, the Planning Committee adjourned.

'EXTRA EXPENDITURES' FOR THE UPCOMING YEARS:

TENTATIVE SCHEDULE:

FY88 (Second half of Indian Ocean)

Bare rock guidebase (HRGB) \$ 0.4 mio  
Ice boat (Kerguelen) \$ 0.85 mio

118 SWIR  
119 Kerguel  
120 Kerguel  
121 Brok.R.  
122 Exmouth  
123 Argo  
(Begin Oct)

---

FY89 (First six legs in Western Pacific)

Nankai Geotech \$ 0.4 mio  
Pressure Core Barrel (PCB) \$ ?  
Packers \$ 0.2 mio  
Drillstring \$ 0.4 mio  
Lau Basin (bare rock) \$ 0.4 mio  
& high temperature \$ 0.5 mio

124 Banda  
125 Sunda  
126 Sulu-SCS  
127 Bonin I  
128 Nankai  
129 Japan I.  
(End Sep)

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FY90/FY91 (Rest of WPAC + 9 legs in CEPAC)

5 guidebases \$ 2.0 mio  
(mudmotors, bits etc.)  
Deep Hole (Bering Sea) \$ ?  
Ice boat (Ross Sea) \$ 0.90 mio  
Reoccupation of site 504 B \$ ?

130 Japan II  
131 Bonin II  
132 ? CEPAC  
133 GBR  
? Vanuatu I  
? Van. II  
? Lau  
& ca.8 CEPAC  
Legs

TOTAL \$ 6.05 mio  
=====

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On average, this is about \$ 1.5 mio/year  
=====

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35,500  
TARGET

DEVELOPMENT OF  
FY88 BASE BUDGET (#K)

4/9/8.

	FY87	FY88			
	MOS. PLAN	PROP.	PCOM REC.	RESPONSE	CURRENT
TAMU	30,100	31,100	31,208 <sup>1</sup>	31,208 <sup>2</sup>	31,208 <sup>3</sup>
LDBO	2,750	2,951	2,751	2,782	2,782
JOI/JOIOES	1,430	1,741	1,541	1,541	1,521
	<u>34,280</u>	<u>35,792</u>	<u>35,500</u>	<u>35,531</u>	<u>35,511</u>

NOTES

- 1 INCL. SIGNIFICANT ADJUSTMENTS OF PROPOSED BASE & ENHANCEMENTS.
- 2 INCL. HQ PART B VOLUMES.
- 3 INCL. PROGRAM DECREASES TO BE DISCUSSED WITH PCOM & BCOM.

**SHIPBOARD  
TECHNICAL SERVICES  
(LAB SPECIFIC)**

	M&S	SAL (*TECHS.)	TOTAL
1. X-RAY LAB	\$ 59 K	\$ 70K (2)	\$ 129 K
2. SEM LAB	12	—	12
3. CHEM LAB a) TOTAL	150	140 (4)	290
b) ALL OUT SAFETY	50	70 (2)	120
4. COMPUTER MAINT.	58	70 (2)	128
5. OFFICES / U.S. / YEOPERS.	31	70 (2)	101
6. U/W GEOPHYSICS	130	—	130
7. PALEONTOLOGY	16	—	16
8. THIN-SECTION LAB	5	—	5
9. PHYS. PROPS.	20	70 (2)	90
10. PALEOMAG.	43	70 (2)	113
11. DOWN HOLE TOOLS	65	—	65
12. CORE LAB / GENERAL	—	420 (12)	420
13. PHOTO LAB	—	70 (2)	70
14. ELEC. TECHS.	—	140 (2)	140
15. SUPERV. / LAB OFFICER	—	70 (2)	70
	\$ 639 K	\$ 1,260 K (34)	\$ 1,899 K

M & S = MAINT. & SUPPLIES

## OPERATION CHANGES TO IMPROVE LOGGING EFFICIENCY AND SUCCESS

<u>Problem</u>	<u>Solution</u>
SES rigup slow	L-DGO and TAMU: SES design improvements
No bridges when SES used, bridges when SES not used	SES decision based on 1) TAMU: drilling conditions 2) L-DGO: CST tests
Tool loss (mud slug while tool in pipe)	TAMU & L-DGO: backflow preventer L-DGO: stronger weak point TAMU: cautious pumping if tool in pipe
Stuck XCB core barrel, no logs through pipe	TAMU: accepts greater risk to BHA TAMU: investigates causes of stuck core barrels
Mud effect on clay swelling	TAMU: carrying capacity tests with different muds L-DGO: clay swelling vs. XRF, salinity, mud, for ODP cores

Leg #	Leg Name	Logging Objectives											Logging Tools				Comments	
		# sites	# sites log	# days log	seis. strat.	mineralogy	geochemistry	subsidence	pore fluids	permeability	fracturing	magnetic properties	stress direction	Standard Schlumberger	VSP	borehole televiewer		other
115	Mascarene Carbonate Diss.	7?	3	4.5	x	x							x					
116	Intraplate Deformation	5	5	8.5	x	x		x	x		x	x		x	x			temperature, drill-in packer (packer time not included)
117	Neogene	7	5	8.5	x	x							x	x				VSP NP-6, Milankovitch
118	SWIR	1?	1	8.5	x	x	x	x	x	x	x	x	x	x	x	x		full tool arsenal
119	Kerguelen I incl. Prydz?	7	7	10.8	x	x		x			x	x	x	x	x			VSP KHP-3
120	Kerguelen II	4	4	7.1	x	x		x			x	x		x				interwell correlation, VSP SKP-3
121	Broken Ridge	<del>9?</del> 8?	<del>6</del> 5	<del>7.4</del> 5.6	x	x		x			x	x		x				
122	Exmouth	4	4	6.1	x	x		x					x					
123	Argo	1	1	4.0	x	x	x				x	x	x	x	x			VSP AAP-1B, basement geochem.

APPENDIX E

March 30, 1987

TABLE 2  
DRILLING PROGRAM

PROGRAM WITH PRYDZ BAY DRILLING

LEG 119	
SITE	DRILLING TIME
KHP-1	7.3 Days
KHP-3	17.0 Days
SKP-1	5.3 Days
PB-1	3.5 Days
PB-2	3.5 Days
PB-3	3.5 Days
PB-4	3.5 Days
Drilling Time = 43.6 Days	
Transit Time = <u>26.7</u> Days (10 kt)	
Total 70.3 Days	
Transit Time = <u>21.7</u> Days (12 kt)	
Total 65.3 Days	

LEG 120	
SITE	DRILLING TIME
SKP-2	5.6 Days
SKP-3	11.4 Days
SKP-4A	12.5 Days
SKP-6A	5.7 Days
SKP-8	6.4 Days
Drilling Time = 41.6 Days	
Transit Time = <u>24.0</u> Days (10 kt)	
Total 65.6 Days	
Transit Time = <u>19.4</u> Days (12 kt)	
Total 61.0 Days	

PROGRAM WITHOUT PRYDZ BAY DRILLING  
(include SKP-6B)

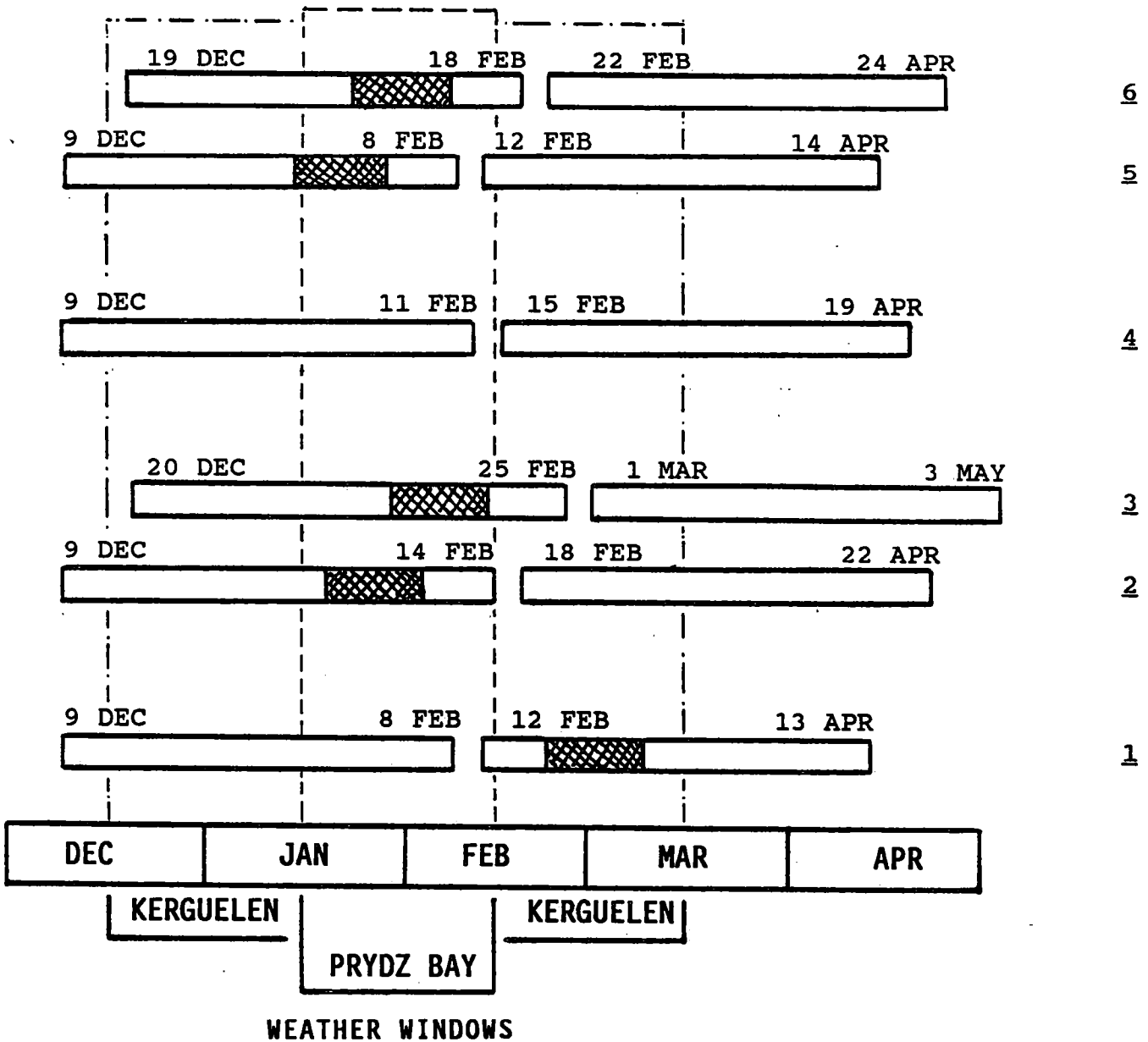
LEG 119 (ALTERNATE)	
SITE	DRILLING TIME
KHP-1	7.3 Days
KHP-3	17.0 Days
SKP-1	5.3 Days
SKP-6B	13.7 Days
Drilling Time = 43.3 Days	
Transit Time = <u>22.3</u> Days (10 kt)	
Total 65.6	
Transit Time = <u>18.6</u> Days (12 kt)	
Total 61.9 Days	

LEG 120 (ALTERNATE)	
SITE	DRILLING TIME
SKP-2	5.6 Days
SKP-3	11.4 Days
SKP-4A	12.4 Days
SKP-6A	5.7 Days
SKP-8	6.4 Days
Drilling Time = 41.5 Days	
Transit Time = <u>24.0</u> Days (10 kt)	
Total 65.5 Days	
Transit Time = <u>19.4</u> Days (12 kt)	
Total 60.9 Days	

**KERGUELEN PLATEAU & PRYDZ BAY DRILLING:**

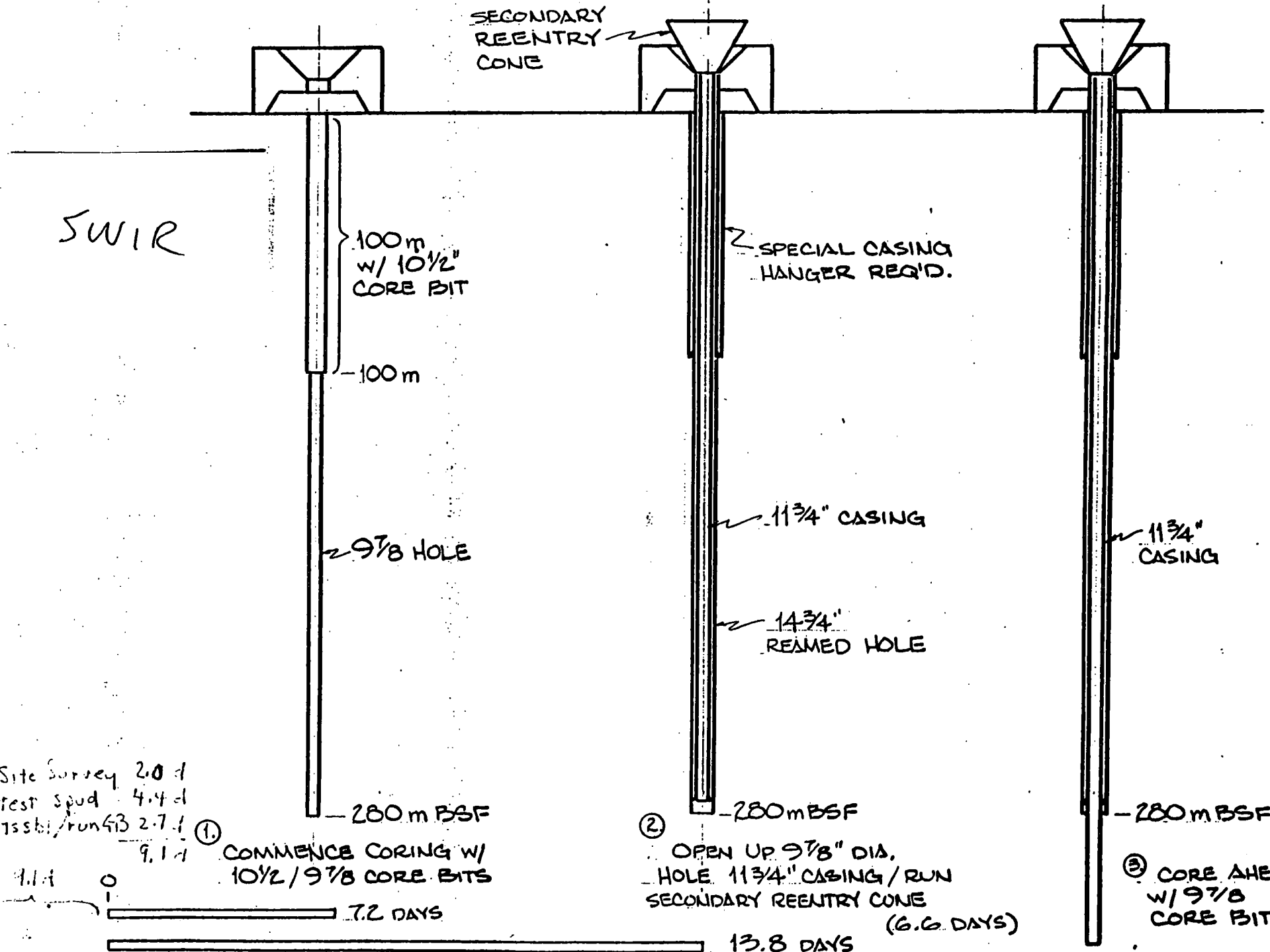
Versions (all assuming a speed of 11 knots):

- 1 As preliminary scheduled (61/60 days)
- 2 K-WG version 1, undelayed (length of legs: 67/63 days)
- 3 same as 2, but delayed by 11 days
- 4 K-WG version 2 (without Prydz Bay; 64/63 days)
- 5 K-WG version 1, without site SKP 8 (SKP 1 shifted to leg 120) undelayed
- 6 same as 5, but delayed by 10 days





HOLE PROGRAM C



APPENDIX H

Site Survey 2.0 d  
 test spud 4.4 d  
 asst/ run 43 2.7 d

9.1 d

9.1 d

BROKEN RIDGE/NINETY EAST RIDGE DRILL SITES

Number	Latitude	Longitude	Water Depth	Penetration	Priority	Drilling	Logging	Total
BR-1	30°56'S	93°34'E	1200 m	450 m (RCB)	1	2.6	1.2	3.8
BR-2	31°00'S	93°33'E	1065 m	450 m (RCB)	1	2.4	1.2	3.6
BR-3	31°06'S	93°32'E	1050 m	450 m (APC/XCB)	2	2.1	1.0	3.1
BR-4	31°09'S	93°31'E	1050 m	450 m (RCB)	1	2.4	1.2	3.6
90ER-1 (A)	0520.9'N	9002.6'E	2992	333 m (APC/XCB)		1.9	1.0	2.9
90ER-1 (B)	(RCB drill/wash 333 m)			RCB 517 + 50 bsmt		5.0	1.1	6.1
90ER-2	1715'S	8815'E	1800	APC/XCB 350 + RCB 200 to bsmt		4.5	1.0	5.5
90ER-5	2718'S	8730'E	2300	500 + bsmt		4.5	1.0	5.5
						<hr/>		
						25.4	8.7	34.1
Transit: Freemantle to Jakarta @ 10 kts.								<u>18.5</u>
TOTAL TIME								52.6

APPENDIX I

**\* Tentative \* ODP Operations Schedule**  
Legs 114-123

<i>Leg</i>	<i>Location</i>	<i>Departs Date</i>	<i>Destination</i>	<i>Arrives Date</i>	<i>In Port</i>
114	Falkland Islands	16 March	Mauritius	14 May	May 14-20
115	Mauritius	21 May	Colombo	1 July	July 1-5
116	Colombo	6 July	Karachi	23 August	Aug 23-27
117	Karachi	28 August	Mauritius	18 October	Oct 18-22
118	Mauritius	23 October	Mauritius	14 December	Dec 14-18
119	Mauritius (Kerg)	19 December	Mauritius	18 February '88	Feb 18-23
120	Mauritius (Kerg)	23 February '88	Freemantle	24 April	April 24-28
121	Freemantle (BrR/NER)	29 April	Jakarta	21 June	June 21-25
122	Jakarta (Ex)	26 June	Darwin?	19 August	August 19-23
123	Darwin? (Argo)	24 August	????	19 October	Oct 19-23

Note: Ports and dates for Legs 122 and 123 are **tentative** and should be used as estimates only.

CO-CHIEF RECOMMENDATIONS FOR INDIAN OCEAN LEGS

LEG 120: (Kerguelen)

Anderson, Barron, Berendt, Berggren, Elverhoi, Hayes, Hays, Hinz (FRG), LeClaire (F), Mutter, Perch-Nielsen, Schlich (F), Segawa (J), Thierstein, Webb

LEG 121: (Broken Ridge/N90E Ridge)

Curray, Dimitriev, Frey, Gradstein (C), Haq, Herb (ESF), Ludden, Peirce (C), Sclater, Weissel, Whitmarsh (UK)

FY88 TAMU BUDGET CUTS  
As Proposed by PCOM

10-12 April 1987  
Washington, DC

Rank (Vote)	Item	\$ (K)	(Σ)
1. (52)	Only 1000 hard-bound copies 1000 microfiches	168	(168)
2. (55)	Cut TAMU Headquarters	200	(368)
3. (66)	Reduce software acquisition	95	(463)
4. (68)	Eliminate 5 graduate research assistants/technicians	50	(513)
5. (70)	Eliminate 2 positions at D.B.'s	42	(555)
6. (78)	Eliminate res. elec. engineer (@ 73K) and reduce JOIDES panel liaison travel (@ 15K)	88	(643)
7. (95)	Author prep camera-ready copies for Part B volumes	171	(814)
8. (99)	Part A volumes to uncoated paper	48	(862)
9. (104)	Eliminate 3 staff scientists	143	(1005)
10. (124)	Eliminate shipboard labs and associated technical support	250	(1255)
=====			
(128)	Reduce/stretch out Mining Coring System (70K), high-temp (20K), and drill string inspection (10K)		
(144)	Eliminate use of Guidebase, Leg 118 (SWIR)		
	TOTAL		<u>\$1,255</u>

**OUTLINE OF INITIAL TENTATIVE PROSPECTUS  
FOR CENTRAL AND EASTERN PACIFIC DRILLING**

(not priority ranked)

<b>Program</b>	<b>Proposals</b>	<b>Notes</b>	<b>CEPAC "Watchdog"</b>
Juan de Fuca	232/E	Probably one Leg	E. Davis
EPR at 13° N	76/E	Question of doing this on sequential legs or in 504B style unresolved	J. Francheteau
Guyots (Cret.) Drowned Atolls	203/E 202/F	Presently as "package"; probably 2 Legs	M. Flower
Old Pacific	252/E	History indicates probably 1 Leg	H. Jenkyns
Ontong Java Plateau	142/E 222/E	Presently a "package"; possibly 2 Legs with one in WPAC schedule	S. Schlanger
North Pac	199/E 231/E 259/E	Presently a "package" of undetermined length	C. Sancetta
Bering Sea	195/E 182/E 225/E	Presently a "package" of undetermined length	H. Schrader
Young midplate "hotspot" volcanism	252/E	Presently a "package"; Loihi SM (252/E) and other expected proposals	M. Flower
Cascadia convergent margin	233/E 237/E	Presently a "package"	D. Scholl
Shatsky Rise	253/E	Probably a Leg	W. Stiter

**Notes:**

- Gulf of California and expected SOPAC proposals have not yet been considered.
- This outline prospectus is not to be viewed without consideration of preceding material.
- This outline prospectus will be subject to possible major modifications.

# Proposed Plan for PCOM at Nikko

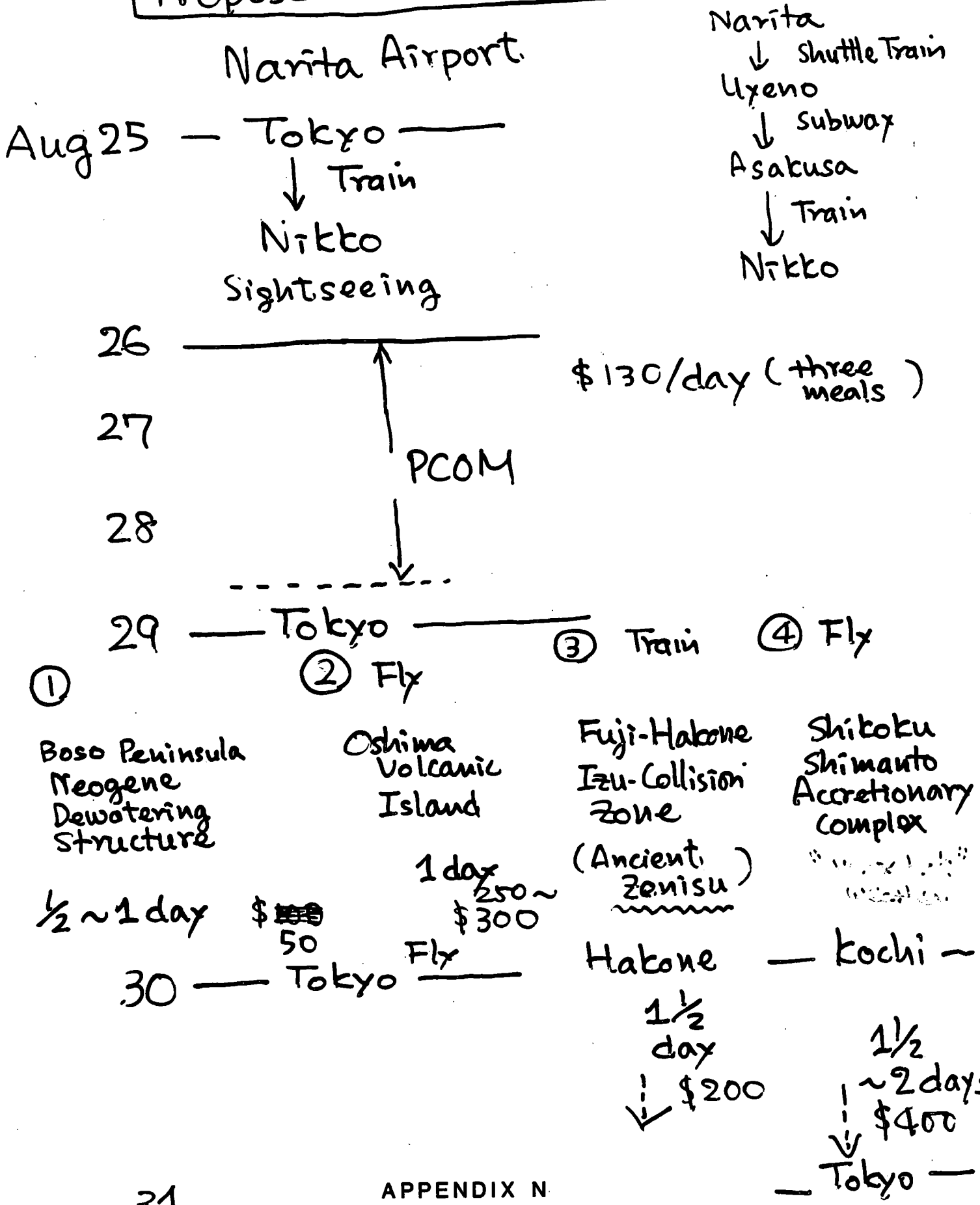


TABLE 2: ODP LEC 116 PROPOSED SITES

Site	Location	Water Depth (m)	Total Penetr. (m)	Operations	Objective
1	00°55.725'S 81°24.000'E	4680	775	APC/RCB Logging	To establish a reference hole for seismic stratigraphy and physical properties.
2	00°57.375'S 81°23.985'E	4680	620	APC/XCB Logging	To compare sediment section with Site 1 to establish history of deformation.
3	00°57.875'S 81°23.985'E	4680	510	APC/XCB Logging	Same as Site 2.
4	00°58.650'S 81°23.985'E	4680	405	APC/XCB Logging	Same as Site 2.
4A	00°58.575'S 81°23.990'E	4680	290	APC/XCB	Same as Site 2.
5	00°58.975'S 81°22.000'E	4680	630	APC/XCB Logging and RCB Packer	To date the fault activity, to measure pressure, temperature and fluid characteristics above, below and at the fault-zone.
6	01°02.050'S 81°24.000'E	4680	230	APC/XCB Logging and RCB Packer	To measure pressure, temperature and fluid characteristics on a heat flow anomaly.



**PROPOSED LEG 116 (INTRAPLATE) DRILLING PROGRAM**

Site	Location	Travel Time (Days)	Time on Site (Days)	Logging	Date (approximate)
DEPART: COLOMBO (SRI LANKA)					
	UNDERWAY <sup>1</sup>	2.2			July 4, 1987
<u>1</u>	0°55.725' S 81°24.000' E		11.5	S.S. BHTV	July 18, 1987
	TRANSIT	0.1			
<u>2</u>	0°57.375' S 81°23.985' E		7.7	S.S.	July 26, 1987
	TRANSIT	0.1			
<u>5</u>	0°58.975' S 81°22.000' E		9.9	PKR, TEMP BHTV	August 6, 1987
	TRANSIT	0.1			
<u>6</u>	01°02.050' S 81°24.000' E		6.1	PKR, TEMP	August 13, 1987
	TRANSIT <sup>1</sup>	7.4			
ARRIVE: KARATCHI (PAKISTAN)					August 21, 1987
		9.9	35.2		48 days

<sup>1</sup>: Estimated at 10 knots;

Note:

Glen Foss recommends to drill Site 5 or Site 2 before Site 1 to better estimate the possibility of reaching 750 m with the XCB.

3 operational days are currently unemployed.