Corrected 3/3/87

JOIDES PLANNING COMMITTEE MEETING
19-23 January 1987
Hawaii Institute of Geophysics

DRAFT MINUTES

Members:

N.Pisias (Chairman) - Oregon State University
G.Brass - University of Miami
J-P.Cadet - France
W.Coulbourn - University of Hawaii
O.Eldholm - ESF Consortium
T.Francis - United Kingdom
S.Gartner - Texas A&M University
D.Hayes - Lamont-Doherty Geological Observatory
M.Kastner - Scripps Institution of Oceanography
R.Larson - University of Rhode Island
R.McDuff - University of Washington (21-23 January)
P.Robinson - Canada
T.Shipley - University of Texas
A.Taira - Japan
B.Tucholke (for D.Ross) - Woods Hole Oceanographic Institution
U.von Rad - Federal Republic of Germany

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)

Panel/Committee Chairmen:

D.Appleman - Information Handling Panel
J.Austin - Atlantic Regional Panel
P.Ciesielski (for P.Barker) - Southern Oceans Panel
G.Claypool - Pollution Prevention & Safety Panel
D.Cowan - Tectonics Panel
R.Detrick - Lithosphere Panel
J.Jarry - Technology & Engineering Development Committee
L.Mayer - Sediments & Ocean History Panel
J.Peirce - Site Survey Panel
S.Schlanger - Central & Eastern Pacific Panel
R.Schlich - Indian Ocean Panel
P.Worthington - Downhole Measurements Panel

Guests / Observers:

C.Moore - Leg 110 Co-chief Scientist
K.Becker - Leg 111 Co-chief Scientist

R.von Huene - Leg 112 Co-chief Scientist
R.Moberly - University of Hawaii
B.Harding - Science Operator (ODP/TAMU)
A.Meyers - Science Operator (ODP/TAMU)
E.Kappel - Joint Oceanographic Institutions, Inc.
D.Steere - Underseas Drilling, Inc. (SEDCO)

JOIDES Office:

M.Wiedicke - Non-U.S. Liaison/Executive Assistant
S.Stambaugh - Science Coordinator
C.Moss - Office Coordinator

623 INTRODUCTION AND OPENING REMARKS

N. Pisias, PCOM Chairman, convened the 19-23 January 1987 annual meeting of the JOIDES Planning Committee, held in Honolulu, Hawaii, and hosted by the Hawaii Institute of Geophysics. Participants were welcomed by W. Coulbourn, the HIG representative to PCOM.

N. Pisias introduced G. Brass, former NSF liaison to PCOM, as the new voting member from the University of Miami as well as B. Tucholke, the alternate for D. Ross at WHOI. New panel chairmen introduced were P. Worthington (DMP), S. Schlanger (CEPAC), Larry Mayer (SOHP), and R. Detrick (LITHP). P. Ciesielski was introduced as alternate for SOP Chairman P. Barker who was then at sea on Leg 113. R. Buffler, the new NSF liaison, was introduced.

Guests from Texas included B. Harding, TAMU Chief Engineer, A. Meyer, TAMU Manager of Science Operations and D. Steere, representing Underseas Drilling Inc. (SEDCO). Pisias introduced co-chiefs Casey Moore from U.C.-Santa Cruz (Leg 110), Keir Becker from U. of Miami (Leg 111) and Roland von Huene from the USGS-Menlo Park (Leg 112).

Ralph Moberly, from the Hawaii Institute of Geophysics, was introduced as an observer to the meeting. Pisias also introduced the new JOIDES Planning Office staff: Michael Wiedicke, executive assistant/non-U.S. liaison, Sharmon Stambaugh, science coordinator and Cherry Moss, JOIDES office coordinator.

624 ADOPTION OF MEETING AGENDA

Pisias clarified the agenda by noting that "Item T: New ODP Sediment Classification " was not included on the agenda outline and that Item U should now read "Future Meeting Schedule and Item V should read "Other Business".

PCOM Motion:
The agenda for the Annual Meeting be adopted, with the corrections forwarded by the PCOM Chairman. (motion Larson, second Brass)

Vote: 15 for, 0 against, 0 abstain

625 APPROVAL OF PCOM MINUTES

M. Kastner noted the following correction to the minutes:

Page 33, line 22: "organic geochemist" should read "inorganic"

PCOM Motion:
Minutes of the 11-15 August 1986 Planning Committee meeting held in Corner Brook, Newfoundland, are approved, with the corrections forwarded at this meeting to be included. (motion Larson, second Brass)

Vote: 15 for, 0 against, 0 abstain

626 EXCOM REPORT

N. Pisias was in attendance at the meeting and reported on those EXCOM decisions of importance to this PCOM meeting (see page 3 of the agenda book for a summary).

Pisias noted that R.Buffler would update PCOM on the membership status of the U.S.S.R. and that it appeared the Soviets would sign the MOU in February. The USSR did not send a representative to this meeting as anticipated.

Purchase of the wireline packer was approved by EXCOM and Pisias reported that the order was placed in early January.

Pisias noted that the new budget process approved at the EXCOM meeting would be tested at this meeting; PCOM would have the opportunity to give major input to the FY88 engineering development. Because PCOM is now to give NSF advice on the budget in December, the scheduling of future PCOM meetings will be affected.

627 RED SEA CLEARANCE

At the Corner Brook meeting, PCOM deferred decision on the Red Sea program until this meeting. EXCOM accepted this decision. The JOI Board of Governors has since met and endorsed EXCOM's view not to accept conditions clearly outside ODP standards.

Current clearance status reported by Pisias was:
1) No clearance as yet from the Saudi government, and
2) Unacceptable clearance conditions from the Egyptian officials.

PCOM Motion:
The Red Sea program should be removed from the JOIDES RESOLUTION operations schedule. (motion Kastner, second Brass)

Discussion:

L. Garrison discussed the conditions sought by the Egyptians. They included clearance negotiations well in advance of drilling operations to be held in Cairo, participation of Egyptian scientists and liaisons, the custody of all samples, with results to be reported to ODP, and custody of the original data tapes, again, with copies of results available afterwards to ODP.

Garrison said that without the time to negotiate with Egypt and the lack of clearance from the Saudi government, planning for Leg 116 must go forward.

Robinson reiterated that the conditions had not been met and the vote was called.

Vote: 15 for, 0 against, 0 abstain

628 NSF REPORT

R. Buffler reported for NSF; a written summary appears as Appendix A.

Buffler said that two representatives from the Soviet Academy of Sciences were currently in Washington, D.C. to discuss the signing of the MOU for ODP membership and the schedule of payments.

The enhancements to the FY87 base budget Of $34,280,000 totaled $1,002,000. Buffler noted that enhancements were contingent on Soviet membership. Comparisons of the FY86 and FY87 budgets showed that PCOM's requests for increases in publication and engineering development had been met. NSF will now require more lead time for budgeting as reflected in the new budget procedures adopted by EXCOM. A written document on FY88 priorities to JOI will be required from PCOM.

The target figure for the FY87 budget (which assumes seven non-U.S. members) is a two-level one: a base budget of $35.5M (an increase of $1.2 from FY87) and an enhanced budget of $36.5M.

The new drilling schedule presented by Buffler differs slightly from the current PCOM mandate which is to provide a one-year drilling schedule and a three-year general track for the ship. "Firm planning", as described in the new drilling timetable, should cover the FY88 Program Plan, in order to provide lead time for new proposals. First priority will be given to Central Pacific proposals.

Buffler announced that he will leave his NSF post in September of 1987 and that the NSF will seek a permanent liaison for the position.

The status of a Canadian/Australian consortium was reported by P. Robinson. Australia is close to achieving a one-third subscription arrangement with Canada and negotiations are still in progress pending funding from several government branches, chiefly the Bureau of Mineral Resources.

629 JOINT OCEANOGRAPHIC INSTITUTIONS, INC. REPORT

FY88 PROGRAM PLAN

T. Pyle reported that the FY87 Program Plan and base budget have been approved. The FY87 budget represents and increase in $1.77M over the FY86 budget. The enhancements for FY87 ($.72M to TAMU, $.094M to LDGO and $.188 to JOI/JOIDES) are on hold pending membership of the USSR. TAMU's enhancements include drilling supplies, engineering personnel to work on developments such as riser drilling, additional SEDCO crew and extension of the ice boat for Leg 114. LDGO's major enhancements are for digital conversion of the BHTV and increases for databank activities. The JOI/JOIDES increases are for developing the international program (as recommended by EXCOM) and for automatic data processing equipment.

The new budget meets EXCOM and PCOM objectives, but allows for few contingencies. Engineering priorities have been realigned at TAMU with an emphasis on drilling hard rock. Pyle announced that the panel chairmen would receive a 50% increase for operational expenses for a total of $1500 per year. A drilling program calendar for 1987, which reflects PCOM's involvement in the budget, appears as Appendix B.

Pyle expanded on the international program; an international project specialist, hired through JOI and reporting to him, would focus on the role of the international partners. The $50K approved by EXCOM for Third World participation is to include shipboard time as well as project activities at TAMU; the program is still being defined.

FY88 PROJECTIONS

Pyle reported that the new budget schedule will be tight and will involve interaction with BCOM, a new committee. NSF target budgets were presented; a base budget of $35.5M and an enhanced budget of $36.5M are projected. Pyle suggested that a further level in the program plan may be necessary to cover major capital investments for engineering development; a separate NSF proposal for such work could accomplish this.

Other items which may impact the FY88 budget include costs associated with COSOD II, increases for Part B publications (about $500K), potential replacement of the drillstring ($400 K), ice boats needed for high-latitude legs ($2M estimated), the guidebase for SWIR drilling ($250K) and other, less predictable increases (day rates, Schlumberger rates, logging enhancements, e.g.)

Pyle said that the enhancements reflected PCOM's prioritizations with the exception of the international program, which EXCOM placed as a higher priority. He emphasized that the enhancements were "all-or-nothing" contingent on Soviet membership.

FY89 PRIORITIES

Pyle said that the scheduling for FY89 will improve with the earlier input from PCOM (December). The NSF budget is an unknown, but a suggestion for doubling of the NSF contributions by FY92 has been favorably received. Publication costs will continue to increase as well as possible costs for drillstring replacement.

Discussion:

B. Harding (TAMU) mentioned that now was the time to purchase oilfield goods due to the industry downturn. He recommended buying about 10,000 feet of pipe this year and again next year.

High latitude drilling and its budgetary impact were discussed. Pyle responded that a "steady state" program would not normally include high-latitude drilling, and discussions on whether budget planning should include at least one "big ticket" item (e.g. ice-boat support or guidebases) ensued. Larson commented that Legs 104-105. Legs 113-114 and the Kerguelen programs all needed and will need iceboat support, and with Soviet involvement, more may be planned. R. Buffler (NSF) said that the NSF budget figures showed only a steady-state program with an increase for inflation (about 4%).

Robinson suggested that items that are crucial for the success of the program be budgeted in and that PCOM must develop programs in advance for them. L. Garrison said that TAMU has had to budget

in "unknowns" such as the guidebase for SWIR. Pyle closed the discussion by noting that some items, such as publications, should not be considered enhancements. Factors other that engineering developments will make an impact on future budgets. He also clarified that the increase in support for panel chairmen extended to non-U.S. as well as U.S. chairmen.

630 SCIENCE OPERATOR REPORT

L. Garrison gave an update on the status of the JOIDES RESOLUTION (Leg 113) including ice reports. Auxiliary science on the MAERSK MASTER (magnetic lines and floating sediment trap experiments) has been successful. The first core was drilled on 16 January and the W1 site was drilled to 300m before impenetrable chert was encountered (target depth was 400-450 m).

Garrison reported on the plans at TAMU for the end of Leg 113; a chartered 747 will bring freight and crew from Houston to the Falklands. The status of the rechartering of the ice patrol boat had not been decided although ice reports indicate that it will be needed at Sites SA5 and SA2.

The status of the cryogenic magnetometer, not available for Leg 113 due to rapid boil-off problems, is uncertain; it is scheduled for use on Leg 114 although careful shipping will be necessary to avoid repeated damage of the instrument.

The results of the pressure core barrel (PCB) workshop were discussed; no FY87 funds were budgeted for the PCB but a working model is projected for late 1988 by TAMU engineers. To conclude, Garrison reported that new preliminary drilling time estimates had been mailed out; also, the new ODP building at TAMU was dedicated in late November.

P. Robinson reported that Canadian scientists may have difficulty getting ODP support for the cost of the charter flight to Leg 114; Garrison said cost figures would soon be available. T.Francis asked about the testing of the high-speed seismic streamer; A. Meyer (TAMU) said that it had not been tested on the transit leg due to slow speeds, but would be tested during Leg 113.

SCIENCE OPERATOR - ENGINEERING REPORT

B.Harding, Chief Engineer at TAMU, gave the report.

Navi-drill Development:

The Navi-drill testing in Celle, FRG, should be finished in late January; it has successfully drilled with diamond shoes into poured concrete and greywacke and should be operational for Leg

114. Frederich Young, the FRG exchange engineer for the project, will go out on Leg 114.

Prototypes for Lockable Flappers:

Harding reported that Dave Huey, TAMU engineer, was out with Leg 113 testing flapper locks which will allow logging through the XCB bit.

New Drill Bits:

Nine 7/8 inch XCB diamond bits from two manufacturers are being tested (about $30K contracted). Failure analysis on the diamond bits used on Leg 111 are in progress.

Side-entry Sub:

Only one side-entry sub built to LDGO specifications is available; the sub has helped with bridging problems, but it is still hard to get the logging tool to the bottom of a hole.

High-temperature Drilling:

Harding explained the $135K budgeted in FY87 for this project; TAMU budgets six months ahead of a given fiscal year and then breaks down the project to appropriate cost catagories. He said that clear directives for FY88 were needed from this meeting because the high-temperature work was based on having the Red Sea leg. The $135K was reassigned so that $45K went to the Los Alamos lab to develop code for drilling in hydrothermal areas and to analyze steam flash problems. Their 350°C code is being rewritten to 500°C. Bit seals and core liner are in-house development programs for high-temperature drilling.

Guidebase Development:

Development for the guidebase includes ordering additional jars and working on safe deployment of the equipment; the work can be finished by the end of May if needed by then.

The reprogramming of the $135K budgeted for high-temperature drilling was not a short-term priority for the Red Sea leg, Harding said. The program should be ready, if needed, for the Lau Basin drilling in 1989. Problems with drilling chert on the Kerguelen legs was discussed. Harding said that XCB cutting shoes were not designed for these hard materials and that the Navi-drill should help. Land testing of the Navi-drill was strongly recommended; S. Schlanger suggested a location on the French coast as a good analogue for the alternating soft layers/chert problem. Schlich stressed the objectives of the Kerguelen Jurassic/Cretaceous sites and basement problems could not be addressed unless the recovery in such lithologies

improves. Kastner added that the COSOD II Steering Committee sees this as a major problem as well.

LEG 110 REPORT

Casey Moore, co-chief scientist on Leg 110, reported on the program in the Barbados forearc area. Three packages were drilled: the deformation front, an oceanic plate reference site and upslope (to see the continental evolution of off-scraped sites). Sites near the toe of the deformation front, 671-676, included the previous 78A site. Site 671 penetrated through he accreted stack, into the decollement zone and into a sand layer. These scaley mudstones had stopped drilling on the previous leg. The Oligocene section was drilled 150m until an unexpected sand layer stopped drilling. The oceanic reference site (672) showed geochemical anomalies and evidence of fluid movements along fracture/permeable zones; therefore, six km seaward of the deformation zone was not far enough out for the geochemical reference site. Good biostratigraphy was obtained and large-scale deformation (overturning, folded imbricates cut by faults) were seen at Site 673. Site 671 showed interesting pore water chemistry results; negligible methane was detected until the decollement. Chloride values also decreased until the decollement was penetrated, suggesting advection of fluids at the sand layer. How fluids move at such low angles along the decollement and why fluids did not increase through the accretionary prism are being further investigated.

In summary, drilling on Leg 110:

* penetrated the decollement
* confirmed fluid flow and deformation well-seaward of the accretionary wedge
* specified the geometry of the fluid conduits

Goals for future research should be to specify the geologic framework for the deformation front and to constrain the structural and hydrologic processes involved. Moore added that the development of workable logging tools and downhole instruments such as packers will be important for these kinds of problems.

LEG 111 REPORT

Keir Becker, co-chief, reported on Leg 111, the main objective of which was to deepen Hole 504B. Coring operations on the hole and problems encountered have bearing on the future of hard-rock drilling, Becker said. Sites 677 and 678 were drilled to measure different heat flow regimes near the spreading axis; these sites also yielded continuous Pleistocene records (677) and hydrothermal circulation data (678).

Hole 504B was deepened about 200 m into the sheeted dike section from the previous Leg 83 drilling to a total depth of 1562 mbsf. Continuous temperature logs confirmed conduction deep into the hole and pore water analyses showed deviations from seawater composition; therefore, some slow convection of fluids within the borehole had occurred. Permeability measurements yielded values in the sheeted dikes similar to those of the pillow lavas at Layer 2B. The logging program at 504B was very successful, with excellent results from vertical seismic profiling (which suggest that Layer 3 may be a few hundred meters below the present hole).

Becker covered the operations problems at 504B. During the five days of logging, the hydraulic arm of the Schlumberger water sampler broke off and had to be milled out. Bit failures occurred after 15 rotating hours due to torquing and junk in the hole. The stabilizers wore off the bottom hole assembly and roller cones were repeatedly lost from the steel bits. The fishing/milling operations on the hole were unsuccessful and the diamond coring bit was tried. The diamond bit did not advance or rotate; the bit and the inner core barrel were both lost, although the core barrel was recovered after four days of fishing. The BHA showed a clean break with no rotation on the bit, suggesting a large pressure surge.

Discussion:

B. Harding said that drilling a new hole at the 504B site would take almost a full leg of drilling. Becker reported about 13% recovery at 504B; contributing factors to the poor recovery were: junk in the hole, the problem of flushing cuttings from a deep hole, the release of formation stresses in new cored section and the characteristics of the formation itself. The recovery from Leg 83 was bad even without junk in the hole and the better heave compensation with the RESOLUTION tripled the penetration rate on this leg.

Becker reported that several core liners collapsed which is probably related to high temperatures (150-160°C). Harding addressed the cuttings problem and said that TAMU is looking at using a pack-off assembly around the drillstring to improve pumping rates; a diverter plug would be set inside the re-entry cone and the hole itself would act as a riser. Harding said that they did not have appropriate fishing tools for the diamond bit on Leg 111 and the best re-entry attempt would be to set an explosion to break up the bit into smaller sections , then magnetically fish.

LEG 112 REPORT

Roland von Huene, co-chief on Leg 112, reported on the Peru Margin drilling and upwelling studies. Fifty-one days were spent at sea and almost five kilometers of core was recovered on this

leg.

The major scientific results of this leg were: determination of the extent of continental crust toward the Peru Trench; evidence for the impact of the Nazca Ridge; a five-million year record of coastal upwelling; evidence of early diagenesis; and evidence of an open geochemical system.

Two transects across the ridge were drilled. The northern transect was drilled to test the extent of continental crust and to constrain timing on tectonic events. Although basement was not drilled , biostratigraphy results showed the section was mid-Miocene, not Oligocene as was indicated by industry wells. The accretionary area was drilled about one kilometer from the transition zone; materials as old as late Miocene were drilled in the accretionary complex . In the Quaternary section upslope, less compressional deformation was evident.

The southern transect across the Lima Basin and into the Salevarry Basin again missed basement penetration; an important upper to mid-Miocene hiatus was drilled which dates a major unconformity beneath the Lima Basin. At Site 679, fluid escape structures indicate physical signs of fluid migration.

The chemical/paleoceanographic results are promising. The Lima, Trujillo and Pisco Basins drilling resulted in records of primary upwelling sequences and interaction of the rise\fall of sea level. Six major cycles, showing early diagenesis (dolomites, phosphates and calcite) and evidence of brine incursions indicated an intense open chemical system. M.Kastner gave further details on Leg 112 geochemistry in her report.

Problems with the leg were: failure to bring core to equilibrium to get thermoconductivity measurements, failure of the resistivity/sonic/thermal tool combo, the lack of caliper tools to measure cross-sectional shape of the hole and the loss of the in site pressure tool.

Discussion:

Von Huene said that the upper Miocene/Quaternary hiatus was associated with the subduction of the Nazca Ridge; the missing Oligocene section marked the present subduction in the Sierra de Blanca. Core recovery for the leg was 50-60%. Holes below 400 m were not logged for technical reasons (see Wireline Logging Services report).

Kastner reported that the in situ water sampler worked well only in soft sediments and that a different tool might be necessary to better sample indurated sediments.

631 WIRELINE LOGGING SERVICES REPORT

R.Jarrard reported for the Borehole Research Group, LDGO. Recent logging services developments and recommendations were presented:

1) Moving to all-digital tools for downhole measurements, was recommended in order to cut down time in the borehole.
2) A microsensitivity tool is advised for Leg 117 (Milankovitch cycles) as an interim solution to a high-resolution dipmeter. Four-arm calipers to measure stress directions are also recommended.
3) The wireline packer approved by EXCOM should undergo testing before routine use.
4) For SWIR, a three-component magnetometer and additional televiewer are recommended.

LEG RESULTS

Jarrard reported on the scientific results from Legs 110-112. He noted that PCOM had set aside logging time on Legs 110 and 112, but it was not all completed. The bridge problems on Leg 110 were the worst encountered; the new mud program and the side-wall sub will help improve this problem on future legs, although the sub was not tested on Leg 112.

On Leg 111, the logging of Hole 504B both before and after deepening was important as core recovery was low. The repeat formation tester had three trials but did not meet ODP requirements. The dual lateral resistivity tool worked well in the hard, fractured rocks. The geochemical combo results have produced a continuous geochemical vs. depth record. New Schlumberger programs will allow accurate weight percentages to be calculated (although the sediments of Leg 112 will provide a more useful test of their accuracy than the basalts).

The standard logs were run on Leg 112 at Site 679. The fine-scale cyclical nature of the sediments was detected as well as a major hard streak (at about 260 mbsf). The change in resistivity and density, as well as precipitated uranium at the streak, indicate a major permeability barrier.

FY88 BUDGET PRIORITIES

FY88 priorities for purchase and development include:

1)	A third wireline packer	$80K
2)	A high-resolution dipmeter	$150K
3)	A second digital televiewer	$94K
4)	High-temperature logging	?
5)	Measurement while drilling	$100K (first year)
6)	Terralog workstations or in-house software	$180K

An approximate 3% increase in Sclumberger rates is projected. The priority list takes DMP and other panels' views into account.

Discussion:

The shortened logging program on Leg 112 was discussed. Jarrard asked whether major changes in objectives should be cleared through the PCOM Chairman. Francis pointed out that the cruise co-chiefs knew from the outset that the leg would be shortened due to increased time in port. Garrison said that the Science Operator is under contract to carry out PCOM directives which state that all holes >400 m be logged. M.Kastner added that most scientists need education on the value of logs as they have increased in scientific return since DSDP. Von Huene reported poor hole conditions at Site 683 and a near loss of tools at Hole 681 during Leg 112.

Jarrard asked for contingency plans for logging on Legs 113 and 114 and for better communications with the co-chiefs.

PCOM discussed logging though the pipe with radioactive tools and whether it presented safety problems. Jarrard responded that lower quality, but still substantial logs can be achieved safely and that they should be run. Brass added that safety is not as big a problem as is logging while not rotating, thus risking the loss of tools.

The discussion ended with the following:

PCOM Motion:

PCOM reiterates the requirement that all loggable holes deeper than 400m be logged. Any deviation from this requirement must be approved by the TAMU operations manager. (motion Robinson, second Larson)

Vote: 15 for, 0 against, 0 abstain

632 ANNUAL REPORTS FROM PANEL CHAIRMEN

Below are the highlights of the Panel and Committee Chairman reports. The recommendations from the panel chairmen on engineering development priorities are included in Table 1.

REPORT OF THE LITHOSPHERE PANEL

R.Detrick, Chairman, reported for the LITHP. Based on the experience of Legs 106, 109 and 111, together with LITHP drilling objectives, the panel has stressed a need for:

- a substantial, long-term commitment from ODP to develop new engineering techniques to improve penetration and recovery

rates when drilling in young crustal rocks

- development of drilling and logging tools capable of operating in high temperature (>300°) conditions

- a recognition in the planning process that drilling crustal objectives will take time to achieve; ODP must be prepared to dedicate multiple legs to a single objective or even a single site

Recommendations for the Indian Ocean Program:

The LITHP has two major objectives for the SWIR program: to obtain a relatively deep hole into lower crustal and upper mantle rocks and to define crustal structures at oceanic fracture zones.

Other LITHP interests in the Indian Ocean are the Ninetyeast Ridge program, Kerguelen and the Mascarene Plateau.

Recommendations for the Western/Central Pacific Program:

In the current WPAC prospectus, the panel has ranked Bonin I, Bonin-Mariana II, the Lau Basin and the Japan Sea as the highest priority legs. LITHP's major emphases in the Central and Eastern Pacific are:

- magmatic and thermal processes at mid-ocean ridges (EPR, Juan de Fuca/Gorda Ridge and Gulf of California sites)

- deeper structure and composition of oceanic crust and upper mantle (fast-spreading crust, fracture zones)

REPORT OF THE TECTONICS PANEL

D.Cowen, Chairman, reported on the panel's major issues for 1986.

Western Pacific Program:

Thematic priorities outlined were:

- back-arc basins (early rifting)
- arc evolution (vertical histories, diapirs)
- collisions

The TECP has reviewed the second WPAC prospectus and ranked the proposals in a nine-leg program as follows:

1. Bonin I
2. Nankai
3. Japan Sea
4. Bonin-Mariana II
5. Banda-Sulu-S. China Sea basins

6. Vanuatu
7. Lau Basin
7. Nankai physical properties
8. Sunda backthrusting

The fourth-ranked program has changed in scope, with elimination of diapir drilling, since the last review and TECP is not sure it now meets original panel priorities.

Central and Eastern Pacific Program:

Mature problems in the area with thematic interests that can be addressed by drilling include:

- dating oceanic crust; kinematics
- vertical displacements and flexure
- ridge trench interactions
- geochemistry of arcs and descending crust
- subduction rates

Problems seen by the panel as needing more definition include oceanic plateaus, structures in oceanic crust and deformation and physical properties deep in accretionary prisms.

The panel strongly endorses geochemical reference holes; several shallow holes (20-30 m) into basement rather than single deep holes are favored.

REPORT OF THE SEDIMENT AND OCEAN HISTORY PANEL

L. Mayer, Chairman, reported for SOHP and suggested to PCOM that the mandate for the panel, being very broad, might require changes in the panel structure or additional members in the future. He also said that the liaison system works well only with strong and outspoken membership.

Major SOHP themes from 1985 and through 1988 include:

1. Cretaceous-Neogene, high latitude paleoclimate problems
2. A paleo-upwelling program (PUP)
3. A deep stratigraphic test program

SOHP Summary of the Indian Ocean Program:

The panel's emphasis and site priorities include

1. Kerguelen-Prydz Bay: late Mesozoic paleo-climate/marine environment, migration of the Polar Front.

2. Neogene I: As it addresses the Indus Fan/uplift of the Himalayas and monsoon histories.

3. Argo Basin/Exmouth Plateau: As a suitable area for a deep stratigraphic test site.

SOHP Summaries of the Western Pacific Program:

Regional objectives and priorities for SOHP include

1. Mixed carbonate/siliciclastic province in a passive margin setting (the Great Barrier Reef program).
2. An isolated back-arc basin (Sea of Japan).
3. Young, passive margin with a sedimentary basin (S. China Sea)
4. Bonin I (to study the effects of the ridge on history of bottom water circulation)

SOHP Summaries of the Central Pacific Program:

Drilling objectives, suggested approaches and site criteria include:

1. High-low latitude and depth transect of sites with shallow burial, carbonate, low paleolatitude and continuous sections; oceanic plateaus area are primary targets
2. Old Pacific crust (pre M-25) for open ocean records from the Jurassic and Cretaceous
3. Atolls
4. Episodicity of volcanism to see relationships with spreading rates and climatic change
5. Fans and depositional processes
6. Fluid circulation studies: rock/seawater interactions and geochemical mass balances

REPORT OF THE DOWNHOLE MEASUREMENT PANEL

P.Worthington, the new Chairman for DMP, reported for the panel, with input from M. Salisbury, who could not attend due to illness.

Worthington asked PCOM to consider panel replacements from outside of the oil industry. He outlined the DMP philosophy on logging/downhole experimentation:

- properly executed logs, apart from the core measurements, provide the only continuous record of a site

- an ODP hole is not an objective in itself, but a scientific legacy

Enhancements and Recommended Tools:

Worthington presented a list of recommended enhancements to the

program which included:

- acquiring a four-arm slimline formation microscanner
- acquiring software to read neutron activation data
- putting Terralog processing stations in ODP member countries for regional databases
- acquiring a back-up multichannel sonic tool

Recommendations for new technology included:

- upgrading the physical properties lab
- developing wireline re-entry capabilities
- acquiring fishing/side-tracking gear
- improving penetration/recovery in hard rock
- acquiring three new guidebases by 1989 for Lau Basin, Juan de Fuca and EPR drilling)
- developing high temperature logging capabilities
- developing long-term observatory packages

Worthington recommended that PCOM/DMP should develop a policy for reoccupation of holes and that the recommendations from the USSAC workshop on physical properties be implemented.

Current and Future Trends:

Worthington said that current thrusts for the program include nuclear spectroscopy, formation imaging, packers and measurements during drilling. Future trends include a "new stratigraphy" which will synthesize core and log measurements. Other suggested developments include in situ geochemical analyses and multisensor imaging of sedimentary facies. Vertical seismic profiling is underutilized in the program.

PCOM commended past DMP Chairman, Matt Salisbury, for his effective chairmanship of the panel.

REPORT OF THE INDIAN OCEAN PANEL

R.Schlich, Chairman, opened his remarks with a schedule of membership rotations which comply with PCOM's recommendations of replacements.

Western Indian Ocean Drilling:

Schlich said that over a hundred drilling proposals had been reviewed; the planned programs include:

1. Southwest Indian Ridge: maximum drilling effort on the ridgecrest recommended; recent Seabeam data should improve guidebase deployment.
2. Neogene: proposes a seven-site transect across the Oman Margin, Owen Ridge and Indus Fan; excellent SCS data

available.
3. Makran: only a single seismic line is available thus making data interpretation difficult.
4. Carbonate dissolution profile: four sites are proposed with possible basement objectives at the CARB-1 site; site survey from March HMS DARWIN cruise is needed.
5. Mascarene Plateau: LITHP support for the program; will provide information on plate kinematics/age progressions. Site survey data will be available in March, 1987.
6. Kerguelen program: IOP in agreement with Kerguelen working group on site selection. Southern leg data need additional interpretation and additional basement objectives need to be better addressed.

Eastern Indian Ocean Program:

Schlich summarized the panel's views as follows:

1. The Intraplate Deformation objectives can be met with five sites, and may be a full-leg program.
2. The Broken Ridge transect has good recent site surveys and can be drilled in less than one leg.
3. Ninetyeast Ridge depth transect will be substituted by the Carbonate Saturation Profile package; the program should yield data complementary to DSDP sites including basement ones.
4. Exmouth Plateau: presently consists of four sites, with trade-offs of EP7 and EP5 being discussed.
5. Argo Abyssal Plain: sites AAP1B and AAP-2 (double-cored in the lower sediments), with about 50 m of basement penetration recommended. A single deep hole might be considered.

REPORT OF THE SOUTHERN OCEAN PANEL

P.Ciesielski (Alternate) reported for P.Barker (Chairman) who was at sea with Leg 113. Details of Leg 113 and 114 and of the Kerguelen Working Group (K-WG) were deferred to subsequent agenda items. SOP is concerned with clearance to drill SA2 and SA5 on Leg 114 as well as the obligation of 114 to complete the Leg 113 objective at Site W7.

Indian Ocean Program:

SOP endorses the K-WG report but would like a latitudinal/depth transect preserved in the final plans. Drilling the Antarctic margin is a high priority, even with site survey problems with Prydz Bay.

Pacific/Antarctic Margin Drilling:

Ciesielski reminded PCOM and the other panels of the importance

of S. Pacific drilling in fulfilling COSOD objectives and for understanding global systems. The panel would like to see the Ross Sea drilled, and if possible, a combination of proposals for drilling south of Australia to get a viable program there.

REPORT OF THE WESTERN PACIFIC PANEL

B.Taylor, Chairman, reported on the panel's progress in defining the program in the Western Pacific. A second drilling prospectus was developed with input from the thematic panels and from TAMU and LDGO (for drilling and logging time estimates). A third prospectus will be available for the next PCOM meeting. Changes in the second prospectus include: a combined Banda-Sulu-S.China Sea basins program, a reduced number of sites from the Bonins program and more consideration of reference sites. The priority list for the WPAC program is:

1. Banda-Sulu-South China Seas basins
2. Bonin I
3. Lau Basin
4. Vanuatu
5. Japan Sea
6. Nankai Trough
7. Great Barrier Reef
8. Sunda
9. Bonin II
10. Nankai geotechnical "mini-leg"
11. South China Sea margin
12. Zenisu Ridge

Taylor emphasized that the first nine programs do not represent nine legs. He said that exchange with the thematic panel has resulted in compromises to accommodate their objectives.

In ranking the programs, Taylor noted that programs 9 through 11 were similarly ranked by the panel. Site surveys are still pending and the ranking was based on available data. Crustal characteristics/ages in SE Asia are important problems as well as evolution of the basins for the program. The Japan Sea drilling has been highly ranked by all thematic panels and the Lau Basin, even without site surveys available, has been a priority program for WPAC. Taylor proposed a clock-wise track through the N. Pacific, then proceeding to a southern route, possibly integrating CEPAC programs.

In conclusion, Taylor asked PCOM to reconsider the total of three years allotted to Pacific drilling in reference to the COSOD circumnavigation objective.

REPORT OF THE CENTRAL AND EASTERN PACIFIC PANEL

S.Schlanger, Chairman, reported that his panel expects additional

proposals before a final ranking from CEPAC. The drilling packages in Appendix C represent a provisional plan.

Of particular note in the program are:

- the addition of a program to investigate old Pacific crust Mesozoic sediments and the basalts of the Nauru and Mariana basins.

- good recovery through chert/chalk/limestone will be needed for many CEPAC programs.

- the flexure proposal on the Hawaii moat will require deep holes with detailed biostratigraphic resolution.

- the East Pacific Rise drilling has CEPAC support, but the three legs proposed are biasing the workload of the CEPAC program

In response to Schlanger's concerns on the EPR drilling, a suggestion to spread out the drilling as was done with 504B was forwarded. Schlanger concluded by noting that the Southern Pacific and Gulf of California workshops are expected to generate additional proposals; he added that a site survey summary was in preparation.

REPORT OF THE ATLANTIC REGIONAL PANEL

J.Austin, Chairman, reported a decrease in activity for the panel because of regional studies elsewhere for ODP and asked PCOM to address the issue of panel membership during the "off-season". He recommended workshops as a way to keep panel interest up as well as to encourage international participation; the forthcoming South Atlantic workshop (USSAC-funded) has had excellent response from South American and African scientists. Workshops on Caribbean, N. Atlantic/Arctic, Mediterranean and Central Atlantic drilling are planned, although non-U.S. workshops are not funded by USSAC.

REPORT OF THE TECHNOLOGY AND ENGINEERING DEVELOPMENT COMMITTEE

J.Jarry, Chairman, reported that the panel has toured the JOIDES Resolution and TAMU facilities in the past year in order to open up exchanges with the engineering and operations staff. TEDCOM has designated working groups to monitor progress and act as technical support in the following areas:

- high-temperature drilling
- hard and fractured rock drilling
- drilling in pressured areas (well control and riser drilling)

To address the high-temperature problems, industry contacts are being encouraged (e.g.Los Alamos Laboratory) and for hard rock drilling, the addition of a TEDCOM member from the mining industry is recommended.

Jarry discussed the ODP research and development budget and TEDCOM has recommended that a general increase of 33% toward R&D be made in the coming six years. TEDCOM seeks increased communications with the panels and TAMU engineers; the panel encourages joint meetings, attendance of panel chairmen at TEDCOM meetings and workshops. TEDCOM has also recommended that a SEDCO engineer attend its meetings as a permanent observer.

REPORT OF THE INFORMATION HANDLING PANEL

D.Appleman, Chairman, reported that the final publications from DSDP were proceeding well. Micropaleontological reference centers have been set up for DSDP samples (Appendix D).

The IHP has considered sampling policy and guidelines on core distribution to give to cruise scientific parties. Appleman emphasized that the policy should lend archival value to ODP cores and not hinder science.

Appleman reported that the ODP Proceedings (Part A) were out for Legs 101-102; logging results were not reproduced alongside the barrel sheets to avoid bad correlations and to reduce volume costs. The ODP Databases are now a higher priority for the TAMU programming staff and PC-disk and remote accessing capabilities are being developed.

As Appleman is retiring from the IHP, N. Pisias concluded the report by thanking him for his service to the panel beginning with DSDP Leg 1. (T.Moore will next chair the panel.)

REPORT OF THE POLLUTION PREVENTION AND SAFETY PANEL

G.Claypool, Chairman, reported that the safety review for Leg 114 was near completion. In the future, PPSP would like site survey data well in advance of actual drilling. He said that the Prydz Bay site survey had been reviewed by three panel members: problems existed but a drilling strategy could probably be developed.

As Claypool will step down from the panel chairmanship after PPSP's next meeting, N. Pisias expressed PCOM's thanks for his service to ODP.

REPORT OF THE SITE SURVEY PANEL

J.Peirce, Chairman, reported that the panels has been generally pleased with the quality of site surveys in the past year. He

said the "catch-up" game in the Indian Ocean is almost over and hoped that the Western Pacific surveys would be scheduled well in advance. Other issues discussed included:

-the watchdog system is working well for most programs
-the SSP matrix is serving a useful communications function with the panels
-the ODP Databank is becoming more important to SSP activities and Carl Brenner in particular has helped communications

Indian Ocean Program:

Peirce outlined the site surveys for the program. Of note are:

- SWIR: Excellent Seabeam data available for the median ridge, but the panel cannot recommend a site on transform fault
- Mascarene Plateau: new SCS data should be available by April
- Sites have not been picked for the Intraplate/Broken Ridge programs
- Prydz Bay: site surveys are inadequate; SSP requests that the Australian seismic lines be reprocessed.

Other SSP Reviews:

Peirce summarized the Western Pacific site surveys and all are in place or funded with the exception of the Lau Basin, where side-scan data are also recommended. A MCS survey is planned on the Great Barrier Reef this summer and proponents are being asked to identify problems with drilling in a national park. A written report of SSP activities for the year is attached as Appendix E.

633 COSOD II REPORT

M.Kastner, a COSOD II Steering Committee member, reported. She had specific timetables and questions to forward to PCOM from X.Le Pichon, Steering Committee Chairman. Discussions at the meeting on the accomplishments and future developments of ODP included 1) whether routine penetration in zero-aged crust would be attained in the next two years; and 2) whether diversifying platforms is possible, taking into consideration that riser drilling may not be as expensive as industry-grade if adapted for the ODP.

The working groups and set up of the conference are described in a handout from Le Pichon (Appendix F). The emphasis for the working groups is that they should be process-oriented and interdisciplinary; they should relate ODP to other global programs (e.g. continental drilling) if possible. The five working groups (9-10 participants each) are to prepare position papers and select candidates to COSOD II. Fifty slots have been

set aside for administrative scientists to participate. Kastner prepared a breakdown of working group participation by country (Appendix G).

The specific concerns of Le Pichon for PCOM to address were:

1) TAMU has contacted Le Pichon about authorship of two technology papers; they feel the one on logging should be done by LDGO. They would like a formal charge for such papers.
2) PCOM is asked to contact IFREMER on coordinating a white paper on independent platforms for HPC.
3) NSF would like to send five scientists, not to be included in the 150 allotted for U.S. participation.
4) COSOD needs direction on how to handle Soviet participation as they were not represented in working group membership.
5) If working groups ask for administrative support funds, what is available?

Discussion:

T. Pyle said that $50K was given to LePichon to support COSOD-related administrative services. Discussions by PCOM on the meeting arrangement included:

* whether the "invitation-only" arrangement gives the impression of a "closed shop" and how international access to the program will be achieved.
* whether the meeting set up will get technical people involved other than in presenting papers.
* LDGO (Jarrard) said that the Downhole Measurement Panel should prepare the logging paper and has agreed to do so.
* Some PCOM representatives were concerned that advertisement for participation did not reach journals in their countries.
* Kastner said that the national representatives of the working groups would filter the applications to achieve the proper quotas.

N. Pisias said that the ESF at EXCOM had indicated that the meeting facility could hold additional Soviet participants; O. Eldholm confirmed that the Steering Committee could accommodate up to 40 additional participants.

PCOM Consensus:

The PCOM Chairman will answer Le Pichon that additional spaces could be made available through the ESF host for Soviet participation at COSOD II.

P.Worthington said that DMP will do the white paper on logging; Pisias agreed that a DMP member should orally report to COSOD and

Worthington agreed to do so. Questions were raised on the "fate " of the white papers; PCOM generally agreed that they should be included in the proceedings of COSOD II. If ODP data is used in preparing them, the "one-year" rule should apply. The HPC white paper was discussed and the following consensus resulted:

PCOM Consensus:

The PCOM Chairman will write Le Pichon with the advice that a broad, multiple-platform white paper should be coordinated through IFREMER. This should include input on risers, support vessels, and TAMU/Arctic drilling workshop information.

In conclusion, E. Kappel said that Le Pichon understands that each country should be responsible for working group expenses. Kastner said Le Pichon would copy and distribute the white papers.

634 PANEL CHAIRMEN'S MEETING REPORT

B. Taylor, Chairman of the Panel Chairmen's meeting, reported. An Executive Summary of the meeting is attached as Appendix H. The engineering priorities developed at this meeting are also included in Table I. Taylor emphasized the improved recovery in alternating hard/soft lithologies as needing increased engineering emphasis, and Navi-drill/APC/XCB development was encouraged. The circumnavigation issue was also of prime importance to the panels.

Discussion:

Taylor discussed the number and scheduling of panel meetings so that PCOM gets relevant information in time for its meetings (particularly for IOP/WPAC/CEPAC and the three thematic panels). Pisias noted that the minutes of panel meeting should not reach the JOIDES office right before PCOM,if possible ; joint meetings are also important, as well as good minutes, for critical meetings.

635 PCOM EXECUTIVE SESSION

PCOM discussed the protocol for inviting panel chairmen to attend PCOM meetings. Although the value of having the chairman available to answer questions was acknowledged, problems arise when the chairmen are proponents and co-chiefs of upcoming legs. Also, the panel chairmen, at their meeting, discussed the importance of knowing how PCOM arrives at decisions; this is not always reflected in the PCOM minutes.

As this PCOM meeting involved establishing the Indian Ocean program, some members said that R.Schlich's presence would be

important. The input from service panels was also viewed as important at PCOM. The need for better PCOM liaison, as suggested by the panels, was acknowledged. It was agreed that a general policy was needed and the following motion was forwarded:

PCOM Motion:

> At future Annual Planning Committee meeting, all panel chairmen should be invited to attend the entire meeting. (motion Kastner, second Robinson)

Discussion:

P.Robinson said that inviting panel chairmen at least once a year would increase interaction; PCOM could also invite particular chairmen as a resource at other meetings. Some PCOM members said that having the panel chairmen as advocates does not necessarily reflect the entire panel's views. Pisias said that it is often harder for the regional panels to be as impartial for their programs as it is for the thematic panels. The discussions ended with the following amended motion:

Motion Amendment:

> At the next annual meeting, the panel chairmen are welcome to attend the entire meeting as informational resources; they will not participate after the Annual Chairmen's Report unless specifically requested by the PCOM Chairman. (amendment Kastner, second Robinson)

Vote: 15 for, 1 against, 0 abstain

PCOM decided that panel chairmen were welcome to attend the remainder of the present meeting and respond to questions as directed by the Chairman.

636 QUICK FUSE PLANNING

N.Pisias introduced this item by noting that the schedule in the Indian Ocean is constrained by the 10 May 1987 end of Leg 114 and the fixed date of December 6 for the start of Leg 119 (due to weather window). In addition, the program for the Neogene I would suffer if set in monsoon season (2 June at the latest and through 10 September).

LEG 113/114 PLANNING

PCOM reassessed the requirement that Leg 114 complete the Leg 113 objective at Site W7. Both SOP and SOHP had recommended this and both later reversed the decision. Larson (SOP liaison at their last meeting) said that the scientific rationale for placing the 113 objective higher than the 114 program was not overwhelming. In addition, TAMU logistics would be stressed and $150K would be

needed for iceboat support.

O.Eldholm pointed out that the two panels reversed themselves based on new site survey data. Gartner added that Sites W6, W7 and W8 were all part of a "package" and drilling W7 would only partially solve the problem; the Leg 114 program is a coherent package as it now stood. Larson discussed the over-thickened sedimentary sequences and the icy conditions anticipated for Leg 114. He agreed that Leg 114 should pursue their program in all the available days. The following motion was then forwarded:

PCOM Motion:

PCOM rescinds the requirement that Leg 114 complete the Leg 113 objectives at Site W7. (motion Brass, second Hayes)

Vote: 15 for, 0 against, 1 abstain

LEG 114 PLANNING

L.Garrison reported on clearance problems. Some sites (some SA5 and SA2) are within the 200 mile zone; the British foreign office said that clearance could probably be granted, but the U.S.State Dept. has advised against drilling within the zone. The RESOLUTION could run out the seismic line on SA2, but it would risk delaying the ship, plus require PPSP approval.

SOP had asked for four sites which will require eight days more than the projected 56 days for the leg. L.Garrison said that under SEDCO contractual obligations, Leg 114 could have no more than 59 days. Approximately three days are required for Navi-drill testing. Pisias noted that about six days could be saved if the SA2 site were drilled into thinner section although logging and basement objectives would have to be dropped. SOHP had previously agreed not to drop the SA2 site.

Options outlined by P. Ciesielski to save time were presented by Pisias: not drill basement, not log holes, not double APC.

Larson and Robinson said that fewer sites should be drilled, with logging and basement objectives to remain in the program. The Paleocene gateway problem could be solved with one deep and one shallow site; a program of Sites SA8, SA2 and SA3 would accomplish this. SOHP's prioritization of sites was: SA8, SA2, SA3 and SA5 (a back-arc site the same age as SA2).

Garrison reviewed the drilling estimates for the proposed sites: SA3 = 10 days, SA8 = 9.4 days and SA5 = 9 days, SA2 = 11 days (16 if XCB included); 23 days transit time is needed.

The discussions concluded with the following:

PCOM Motion:

Leg 114 is required to log, penetrate basement and test the Navi-drill; if any site is dropped to fit the time available (59 days), it must be SA5. (motion Larson, second Gartner)

Vote: 16 for, 0 against, 0 abstain

LEG 115 PLANNING AND REMAINING INDIAN OCEAN PROGRAM

Robinson opened the discussion by noting that the site survey for Makran has problems; he suggested dropping the program as the reprocessed data will arrive too late (late March).

Francis said that by relocating SWIR from Leg 115, the Makran program has suffered. The planning for the leg assumed it would occur in the second half of 1987. PCOM discussed whether the sediments could be dated with sufficient resolution to accomplish the scientific objectives of the leg; available cores from the area have not yet been analyzed. Francis proposed an alternate shiptrack: do Broken Ridge and the Ninetyeast Ridge, then place the Makran program after the Intraplate and Neogene I programs.

Larson (IOP liaison) said that the IOP has always been reticent toward Makran. The Mascarene Plateau and carbonate dissolution profile (Neogene II) have consistently been rated higher priority. The Makran program would suffer if drilled during the monsoon and the faults could not be dated without good biostratigraphy. He proposed the following:

PCOM Motion:

To constitute Leg 115 as a combination of the carbonate dissolution profile and the Mascarene Plateau basement penetration as outlined in the last Indian Ocean Panel prospectus. (motion Larson, second Brass)

Discussion:

PCOM determined that the Francis proposal would require an additional half-leg for transit time. Hayes suggested that PCOM not vote on a "piecemeal" basis, but rather on candidate schedules. PCOM looked at the "strawman" schedule included in the agenda packet, excluding the Red Sea program at Leg 116 (Appendix I). Garrison added that for the limited time available in the Leg 115 slot, only a few programs were possible (Mascarene, Neogene II, Makran).

Pisias said a major delay involved the SWIR program. The Navi-drill could not be sufficiently tested on Leg 114 for 115. Francis pointed out that with the Red Sea program dropping out, nine legs were supposedly sufficient to complete the remaining program. Pisias (TECP liaison at their last meeting) said that the panel was not enthusiastic about Makran. He noted that PCOM

should identify the most valuable science supported by the Panels.

Garrison presented a simplified version of the best logistics scenario, with the assumption that SWIR and Neogene I would be at the end of the program. It was in good agreement with the "strawman" schedule.

Robinson suggested that Larson's original motion be amended to accept the "strawman" schedule. J.P. Cadet added that the carbonate saturation profile is an exciting problem and Mascarene is also good science; he supported Robinson's suggestion.

Motion Amendment:

> To constitute Leg 115 as a combination of the carbonate dissolution profile and the Mascarene Plateau basement penetration as outlined in the last Indian Ocean Panel prospectus and to accept the program through Leg 118 as outlined in the schedule presented by Pisias. (amend Larson, second Brass)

Vote: 13 for, 2 against, 1 abstain

637 LONG-TERM PLANNING

TAMU REPORT ON LONG-TERM ENGINEERING DEVELOPMENTS

B.Harding reported earlier in the agenda due to his travel schedule.

Harding reported that $459K had been budgeted in the current fiscal year for engineering studies; six full-time engineers work on development, with two assigned to the hard-rock problem.

In the mining coring system development, TAMU is working with DOESSEC, Longyear and other international continental drilling efforts such as the Swedish deep gas hole. This work was not originally in the FY87 budget and TAMU has requested that more funds be assigned for hard rock drilling in the FY88 budget.
Short-term Priorities:

Engineering developments needed in the next two years include:

1) Navi-drill
2) Pressure core barrel
3) A drill string inspection tool
4) Revision of the 110 packer and testing of a rotatable one
5) High temperature drilling

Longer term priorities needed in more that two years included:

1) Mining technology systems
2) Drill bit development
3) 9-1/2 inch coring motors for bare-rock drilling

An interim report on the mining drilling system will be made available to the JOIDES office soon.

Guidebase Development:

A total of $552K is projected for guidebase development, although extra modifications to the televiewer system may not be needed. Additional items needed for deployment will include casing, tilt beacons, bits and drilling jars. The postponement of the SWIR leg was advisable not just for budgetary reasons, but because TAMU needs information on the size of holes and what kind of bits will be needed.

Discussion:

Harding said the message was clear that land testing for chert/unconsolidated sediment drilling is needed. Harding discussed the fishing attempts on Leg 111. He said that it was hard to predict what kind of tools would be needed on a given cruise; some tools are modified on the leg itself. Such tools are more important on deep penetration legs, whereas they fall to a lower priority other ones.

636 QUICK FUSE PLANNING (Continued)

LEG 115 PLANNING

PCOM discussed the objectives and time estimates for the Carbonate Dissolution Profile (CDP) and Mascarene Plateau. The CDP program would require almost 14 days to double HPC the planned four holes (250 m each). SOHP had requested the addition of the shallow M1 site (Droxler site). The estimates include the basement objective for the CARB-1 site. The time estimate for the MP 1-3 sites on the Mascarene Plateau (single rotary cored), without logging, was 29.3 days. Transit time was estimated at 9 days.

Larson proposed that the requirement for the Mascarene Plateau sites be for 50m penetration into basement plus the standard Schlumberger logs. If time permitted, basement objectives at CARB1 as a last priority was also proposed. He also suggested the M1 site be carried through safety review but not be considered part of the primary program.

PCOM Consensus:

Leg 115 will consist of the Mascarene Plateau program (sites MP1-3) to include standard Schlumberger logs and the Carbonate Dissolution Profile (sites CARB 1-4). Site CARB 1 has the option to penetrate basement and no CDP sites are required to be logged. The M1 (Droxler) site will be a back-up site.

Pisias noted that the program is well balanced; Neogene I gets as much time as possible and the ship will reach Kerguelen in enough time. L. Garrison mentioned that the Mascarene Plateau will need clearance; the CARB sites already have clearance.

Leg 115 Co-chief Recommendations:

PCOM reviewed the agenda book list compiled from the panel suggestions for co-chiefs and added its recommendations. As SOHP had not recommended co-chiefs, L. Garrison asked for their input and for Japanese or German co-chief recommendations, if possible. PCOM agreed that a non-prioritized, alphabetical list of co-chiefs for this and other legs would appear in the minutes.

Co-chief recommendations forwarded to the Science Operator for the Mascarene Plateau/CDP program, and for other Indian Ocean programs, are listed in Appendix J.

LEG 116 PLANNING

N.Pisias ("watchdog" for the Intraplate Deformation program) reported that IOP recommends a full-leg, five site program; excellent sites surveys exist from J. Weissel but sites have not yet been picked. Garrison said that TAMU could not wait for another IOP meeting as the leg is in June; he suggested getting co-chiefs selected, then have them coordinate site selection with Weissel as soon as possible for PPSP review.

Co-chief recommendations for the Intraplate Leg (116) appear in Appendix J.

Garrison said that 48 days were available for the leg if the N. Ninetyeast Ridge (6°N) site, which needed about 9.5 days, were to be included. Kastner pointed out that the original schedule was for 42 days. Hayes said that in the absence of further information, PCOM should keep to the Science Operator's schedule for the leg.

(Note: In Leg 122 planning, the N. Ninetyeast Ridge site was included as part of Leg 116.)

LEG 117 PLANNING

The Oman Margin/Owen Ridge/Indus Fan program (formerly the

Neogene I) constitutes this leg. N.Pisias said that the leg is scheduled to begin 26 August with 41 operational days. According to the IOP prospectus, in dropping the Gulf of Aden site, 41 days of drilling and logging would be required. A.Meyer said it would require 33.2 days to drill all sites (including the Gulf of Aden) and 11 days for logging, for a total estimate of 44.2 operational days.

L.Garrison said that if one Indus Cone site and the Gulf of Aden one were dropped, 41 operational days would be available. Larson proposed to drill as set forth in the IOP prospectus, with the elimination of NP-8 (Gulf of Aden) plus keeping the option of logging the shallow Oman margin transect (NP 1 - 3).

A.Meyer said that NP 1-7 would require 39 days, 11 of which would be for logging. She said that the two additional days may not be enough to fully accomplish the planned VSP experiments.

PCOM Concensus:

Leg 117 will have 41 operational days and will consist of sites NP1-NP7.

Some discussion followed on the deepening of the Owen Ridge site to basement, and it was left as a secondary objective for the leg.

LEG 118 PLANNING

Larson, IOP liaison, opened the discussions, and showed a sketch of the possible sites for the Southwest Indian Ridge program (Appendix K). The IOP has recommended a single deep hole at Site 4 (on the median ridge), with the "gravel pit" site as a back-up. LITHP's first priority is the gravel pit transect. The difference of opinions is based on logistics as up to 15 days are required to set the guidebase. Dredge samples of ultramafics have been recovered only at the median ridge.

R.McDuff (LITHP liaison) said that the panel wants the gravel pit site because: 1) logistic considerations and 2) the median ridge is a zone of overprinting slip deformation possibly greater than at the "pogo" (gravel pit) site.

L.Garrison said that the gravel pit option would still require that the guidebase be onboard wasting space and requiring supplies for the leg.

Several PCOM members did not find the petrologic objectives of the leg compelling. Garrison said that the arguments should rest on the science but TAMU wants the experience in guidebase spud-ins. He said 36 operational days are available, with 12-15 needed to set the guidebase. DMP has asked for 8 days for technical programs (packer, borehole televiewer, heat flow).

Jarrard added that assuming a deep hole is accomplished, more than the standard Schlumberger runs would be desirable. An offset VSP experiment would take almost 10 days.

PCOM concluded the discussions with the following:

PCOM Consensus:

Leg 118's first priority is to set the guidebase at the median ridge site (Site 4); the second priority is to pogo into the gravel pit; the third priority is to drill the northern nodal basin site. Eight days should be allowed for logging experiments with the understanding that a more specific program for logging will be determined.

LEG 119/120 PLANNING (KERGUELEN PROGRAM)

N.Pisias opened the discussion by stating the Prydz Bay program deserves consideration but that PPSP approval is uncertain. Larson added that at least the original monitor records from adjacent seismic lines, as well as good navigation charts, are needed.

Drilling and logging times for the legs were discussed. L.Garrison said that 61 days (including 14 transit days) are available; 39 operational days are available for Leg 120.

R.Larson said that three sites to basement seemed sufficient, but that the Kerguelen Working Group (K-WG) needs to address basement objectives further. N.Pisias said that R.Schlich is concerned that the K-WG be given more information on Prydz Bay objectives; Pisias suggested that the K-WG meet with a LITHP member (possibly J.Mutter) to better define basement objectives.

PCOM Concensus:

The Kerguelen Working Group is to meet before the next PCOM meeting, and to report at the next PCOM meeting with scenarios both with and without Prydz Bay drilling, plus additional information on basement drilling.

Hayes said that getting available Russian data from Prydz Bay may be a problem and that reprocessing the available Australian/French data may only improve resolution in the shallower sections. Pisias agreed to contact D.Falvey for the Australian monitor records. L.Garrison added that TAMU needs to know soon about ice boat procurement.

PCOM Concensus:

At the next PCOM meeting a decision will be made on whether or not Prydz Bay will be included in the Kerguelen program, if the PPSP has not had a chance to review it.

Kerguelen co-chief recommendations are listed in Appendix J. The

ODP operations schedule for Legs 114-120, as defined by PCOM, appears as Appendix L.

638 FURTHER INDIAN OCEAN PLANNING

LEG 121 PLANNING - BROKEN RIDGE PROGRAM

R.Larson reported that good site surveys exist for this leg. The Ninetyeast Ridge drilling on the two southern sites are scheduled with Broken Ridge and the northern sites with the Argo Abyssal Plain (AAP) drilling.

The prospect of Australian and perhaps Russian participation on the leg was discussed. The site selection for the leg is charged to the IOP (as there is no major proponent) using input from the K-WG. PCOM requested that a Science Operator representative attend the IOP meeting to make the Kerguelen drilling calculations. Pisias was to request a site survey report from the panel. The leg did not appear to need any special technological developments.

LEG 122/123 PLANNING - EXMOUTH PLATEAU/ARGO ABYSSAL PLAIN

Exmouth Plateau:

S.Gartner, program "watchdog", reported that two sites for a deep stratigraphic test are proposed. SOHP's primary site is EP-5. SOHP cannot justify the second site for double coring as proposed (AAP - Gradstein proposal). R.Larson reported that the IOP would like the EP-5 site drilled, but it has not been approved by the PPSP. SOHP's alternate site is a slightly shifted EP-7 site.

Pisias suggested that moving the EP-7 site to a deeper, thicker section and adding the EP-6 site would gain more time for the leg. A 41 day program has been recommended by the IOP.

PCOM Concensus:

PCOM's recommendation to the Indian Ocean Panel is to plan a full leg on the Exmouth Plateau and to consider SOHP's recommendations for the Exmouth sites.

Argo Abyssal Plain:

Robinson indicated that PCOM should consider geochemical reference holes and how to translate a single basement hole to solving a mass balance geochemical solution. The effects of zone alteration may not make a single hole "representative". The LITHP has requested a single deep hole. Garrison indicated that 2 deep holes might require more than one leg.

PCOM Concensus:
The Argo Abyssal Plain program will consist of one re-entry hole with significant basement penetration.

Geochemical Reference Sites:

Hayes requested justification for the AAP site as a reference site for the subduction process and products. He said that similar candidate sites will come on future legs. Robinson said that the LITHP has asked for a deep reference site in the Bonins as well but that the AAP site across an arc/forearc section would be valuable. Larson added that the stratigraphic section above basement was worth drilling on the AAP site and would not be offered in the Bonins.

Kastner asked for a general statement from SOHP/LITHP on reference sites based not on the logistics of the ship, but as a scientific concept. Pisias agreed to go to LITHP for a more detailed justification for the AAP site.

Ninetyeast Ridge:

The drilling requirements for the Ninetyeast Ridge sites were discussed with about eight days estimated to drill the northern Ninetyeast Ridge. Larson suggested leaving the AAP drilling as a single leg and "shoe-horning" the N90°E Ridge into the Intraplate Deformation leg (Leg 116); the site also would involve extra transit time.

PCOM Concensus:
The North Ninetyeast Ridge site will be included on the Intraplate Deformation leg (116).

637 LONG-TERM PLANNING (Continued)

WESTERN PACIFIC PLANNING

A.Taira prefaced the Western Pacific plan with information on weather windows for the Japan Sea (January-February are bad) and Nankai/Bonins (typhoons peak in August and September). Pisias added that this problem may make interweaving appropriate CEPAC programs necessary.

Splitting the East Pacific Rise (EPR) into multiple legs was discussed for logistics and to take advantage of guidebase engineering developments between cruises. Garrison said that the program should identify CEPAC targets as logistical costs could be reduced if coordinated properly.

Pisias cited several considerations for setting up the Western Pacific program including: 1) the potential problem of inserting immature CEPAC programs in too early in their planning, and 2) the possibility of USSR membership. WPAC has proposed a clockwise track through the western Pacific (see map as Appendix M). The number of legs for the program is not yet determined, nor the transit times required.

Robinson was satisfied with WPAC proposal review and proposed to accept the nine highest-ranking programs for planning purposes. PCOM discussed the rankings of the thematic panels for WPAC programs and the site survey needs. Some members wanted a better review of the scientific priorities before assigning legs. Garrison pointed out the need to soon begin engineering, clearance and logistics work. Cadet mentioned the possible impact of COSOD II to the program.

Larson proposed that PCOM specify several programs that are highly supported by the panels as a "core program" and suggested it include: Bonin I, Nankai (accretionary wedge), Japan Sea, Banda-Sulu-South China Sea, and the Great Barrier Reef. Pisias noted the five programs will probably need more than five legs. There was some concern that the above program did not satisfy TECP collision tectonics interests. Robinson added that the panel chairmen are all concerned with whether the second circumnavigation will occur and advised concentrating on nine programs of thematically-driven science. Kastner pointed out that for a total three-year program in the W.Pacific, the number of CEPAC programs might be affected.

PCOM Motion:

WPAC and the thematic panels are directed to develop a nine-leg program for planning purposes in terms of a detailed prospectus (goals, timetables) to present to PCOM at the April meeting. (motion Robinson, second Brass)

Vote not called; see subsequent motion

Discussion:

von Rad commented that WPAC had already provided two prospectuses; Pisias added that such a request would not get needed information to the Science Operator until April.

The relative merits of a 7, 9 or 11 program prospectus were discussed. B.Taylor said that his panel defined programs instead of legs at PCOM's direction in order to thoroughly look at the science proposed. He said the third WPAC prospectus would detail drilling times and that 6, 9 and 12-leg scenarios had already been provided. He maintained that WPAC would continue to keep the top seven programs; only Sunda and Zenisu may change with

additional site survey data.

PCOM Motion:
That PCOM accept, for planning purposes, the first nine programs proposed by WPAC for the Western Pacific;

WPAC is directed to prepare a detailed prospectus for each program and to translate these into tentative legs;

The other three programs should continue to be developed and considered as possible alternatives. (motion Robinson, second Coulbourn)

Discussion:

PCOM reviewed the five core programs proposed by Larson which were thought too extensive and the following amendment was forwarded:

Motion Amendment:
The four programs, Banda-Sulu-South China Sea Basin, Bonin I, Japan Sea and Nankai, should be included as a core program for the western Pacific. (amend Larson, second Taira)

Vote to amend motion: 15 for, 1 against, 0 abstain

Vote: 15 for, 1 against, 0 abstain

PCOM Motion:
That PCOM no longer accept the three year program as the limit in the Pacific for planning purposes. (motion Robinson, second Kastner)

Vote: 6 for, 9 against, 0 abstain

CENTRAL PACIFIC PLANNING

Discussions on the Central Pacific program were opened by Pisias who noted that the CEPAC planning process had included joint meetings for interaction with thematic panels. He proposed the following guidelines:

The thematic panels are instructed to examine the proposals that have been considered and ranked by CEPAC and begin to evaluate how well they address their thematic objectives. The thematic panels are also asked to identify important thematic issues which may not have been addressed in the CEPAC proposal list.

CEPAC is asked to continue evaluating proposals which are approaching maturity and are of major thematic interest so that PCOM can begin to identify potential CEPAC programs to be

included within the schedule for the WPAC area.

Hayes said that CEPAC surveys would largely be done in 1988. Pisias reiterated that CEPAC needs guidance for the number of legs they can expect.

PCOM Motion:
That PCOM reaffirm its advice to CEPAC and the thematic panels that one and one-half years be used for planning purposes as the general time frame for the CEPAC drilling plans. (motion Larson, second Brass)

Discussion:

Larson said that a three-year program had been set up and a extension of four months on the WPAC program would shorten the CEPAC program. PCOM discussed the impact of East Pacific Rise drilling and the following amendment was proposed for Larson's previous motion:

Motion Amendment:
CEPAC shall include scenarios with and without a three-leg East Pacific Rise program. (amend Kastner, second Larson)

Vote to amend motion: 4 for, 10 against, 2 abstain

Vote: 10 for, 5 against, 1 abstain

Discussion:

Robinson said that CEPAC should put together a program similar to the level of WPAC's, then refer it to the thematic panels. Shipley asked for clearer rankings by CEPAC.

PCOM Motion:
To accept the instructions formulated by the PCOM Chairman for CEPAC direction. (motion Robinson, second McDuff)

Discussion:

Hayes asked that CEPAC be instructed to put together packages supported by proposals as some targets listed had none. Pisias suggested substituting "proposals" for "programs" in his instructions. Kastner asked if the thematic panel were to deal with proposals from CEPAC of whether they should identify other themes from the scientific community. Pisias said that there should be proposals to support the science. A vote was called to accept the Chairman's amended instructions to CEPAC:

Motion Amendment:

The thematic panels are instructed to examine the proposals that have been considered and ranked by CEPAC and begin to evaluate how well they address their thematic objectives. The thematic panels are also asked to identify important thematic issues which may not have been addressed in the CEPAC proposal list. (amend Robinson, second McDuff)

Vote: 16 for, 0 against, 0 abstain

Motion Amendment:

CEPAC is asked to continue evaluating proposals which are approaching maturity and are of major thematic interest so that PCOM can begin to identify potential CEPAC programs to be included within the schedule for the WPAC area. (amend Pisias, second Kastner)

Vote: 16 for, 0 against, 0 abstain

Pisias said he would also instruct the panels to have an initial prospectus ready before the August PCOM meeting, with rankings/priorities identified as a possible core program.

LONG-TERM ENGINEERING PRIORITIES

The engineering priorities list developed at the Panel Chairmen's Meeting (18 January 1987) was discussed. Pisias said that PCOM should tell JOI how to prioritize the items for the budget.

Francis was concerned that the Navi-drill, scheduled for testing on Leg 114, be ready for SWIR.

Garrison said that TAMU can not do everything on the list without an increase in budget/personnel. Items should be selected for importance to upcoming legs. Although PCOM generally focussed on the Navi-drill, Pisias underscored the need for hard/soft rock recovery as the Navi-drill may not be the ultimate solution. Land testing of the Navi-drill was encouraged.

Robinson endorsed TEDCOM's recommendation to increase the engineering budget; Pyle responded that necessary cuts in other programs would have to be identified as well.

Garrison said that TAMU has many on-going, lower-level projects that are general drilling upgrades which do not relate directly to the high-priority scientific objectives.

Larson and Cadet asked for TAMU to present an explanation of how its budget will address the engineering priorities at the next PCOM meeting. Pisias also asked Taylor to include technical requirements in the next WPAC prospectus.

The specific programs for which engineering priorities were identified by PCOM appear in Table 1. PCOM concluded with the following:

PCOM Consensus:

PCOM identifies "young crustal drilling (Navi-drill/XCB/APC) and "recovery in alternating hard/soft sedimentary sequences" as the highest priority engineering developments, although others identified at the January 1987 Annual Meeting should be addressed.

639 BUDGET COMMITTEE MEMBERSHIP

PCOM membership to the new Budget Committee consists of the Chairman and one other U.S. member. The following nomination was forwarded:

PCOM Motion:

Larson nominated his eminent and substantial colleague, Garrett Brass, from the University of Miami, as PCOM's second member to BCOM. Brass's recent past experience in budget construction and review at the National Science Foundation, coupled with his intimate knowledge of the scientific goals of the program, make him the ideal individual to review program plans that propose to turn money into science. (motion Larson, second Kastner)

Initially speechless, Brass indicated his willingness to serve.

Vote: 15 for, 0 against, 1 abstain

640 TEDCOM ROLE IN ENGINEERING DEVELOPMENT

Francis (TEDCOM liaison) reported results from the last TEDCOM meeting. Well control drilling was discussed but remains poorly defined; TAMU has asked for specific sites and the conditions expected at them (weather, water depth, currents, properties of the lithologies, etc.) in order to seek engineering solutions. Garrison said it would be helpful for a selected group of scientists to attend the upcoming riser drilling workshop.

Pisias said that TEDCOM needs to respond to the specific requirements set forth by the advisory structure, not define its own engineering interests. PCOM generally agreed that TEDCOM is a resource for TAMU engineers.

Larson said that TEDCOM are not users, but industry engineers; therefore, no conflicts of interest will arise. Francis concluded by stating that TEDCOM's recommendation to increase the engineering budget was a result of careful review by its members.

641 SAMPLING STRATEGY

This item was placed on the agenda in response to concerns on thematic sampling strategy (expressed by B.Biju-Duval at the October 1986 EXCOM meeting).

J.P. Cadet said that Biju-Duval is concerned that panels have a strategy, including one for logging, for each leg. Co-chiefs should review it to see that it satisfies the main objectives for the leg.

PCOM generally agreed that the thematic panels be precise about the sampling for each leg and that the shipboard party be chosen with that strategy in mind. Pisias agreed to take his response to Biju-Duval (Appendix N) to EXCOM as PCOM concluded that it addressed the issue properly.

642 UNSOLICITED PROPOSALS/LOBBYING/CONFLICTS OF INTEREST

CO-CHIEF SELECTION

Pisias added this item to get PCOM's guidance on lobbying and selection of co-chiefs from with the JOIDES advisory structure.

(P.Robinson left the meeting for this discussion.)

Tucholke said that is not clear, outside of PCOM and some panels, how co-chiefs are selected. He added that site survey scientists have been "locked out" of the co-chief scientist slot. This may impair how those outside ODP view the system.

Hayes proposed that the procedure for co-chief selection appear in the JOIDES Journal. Pisias agreed to coordinate such an article; it would be circulated to PCOM and TAMU for their input.

(A copy of the article, as submitted to the February 1987 Journal is attached as Appendix O.)

UNSOLICITED PROPOSALS/COMMUNICATIONS

Panel chairmen have asked how they should respond to unsolicited letters and other input. Panel chairmen have been advised to use discretion on unsolicited proposals (those not channeled through the JOIDES Office).

CITATION OF ODP PROCEEDINGS (PART A)

Discussions during the report from the IHP on the citation of the ODP Proceedings (Part A) resulted in the following:

PCOM Motion:
That the suggested citation for the initial ODP Proceedings follow the format developed for the DSDP Initial Reports with the addition of a statement identifying the TAMU staff scientist as the volume's "Editor" or "Coordinator". (motion Larson, second Brass)

Discussion:

Coulbourn said that the policy varied by volume in the latter days of the DSDP. A. Meyer said that during the DSDP, co-chiefs had the option to include the staff scientist. Eldholm suggested postponing the vote until the next PCOM meeting so that the precise guidelines for DSDP citation could be presented.

PCOM Motion:
The Larson motion on ODP Proceedings (Part A) citation is tabled until the next PCOM meeting in order that specific examples can be presented. (motion

Vote: 11 for, 5 against, 1 abstain

POLICY FOR PROVIDING SAMPLES TO LAND-BASED SCIENTISTS

Pisias expressed concern that land-based science not duplicate efforts onboard the RESOLUTION. Brass said that co-chiefs have discretion for allowing such efforts; he supported the 12-month moritorium on distribution of samples to shorebased labs. Francis said that the "consortium" approach for non-ODP science was valuable; he said fresh samples are often needed for geochemistry and other work and the 12-month rule would inhibit good science. Pisias reiterated that a problem exists if the science duplicated ship-based work and that often, few technicians are available to prepare the samples.

A. Meyer said the sampling plan is prepared by the co-chiefs; although she did not know the specifications on the Leg 112 distribution of samples to the British consortium, some co-chiefs have felt pressure from such requests.

Pisias was satisfied that a policy was in place but that PCOM's concern should be noted.

643 PANEL MEMBERSHIP

APPROVAL OF NEW PANEL MEMBERS

SOP: S. Cande (LDGO) will be invited to fill J. LaBreque's slot
TEDCOM; P.Stanton (EXCOM) and W. Svendson (Longyear) will be asked to join.

WPAC: G. Moore (Tulsa) is nominated for E. Silver's slot
ARP: Either C.Keen (Atlantic Geosciences Centre) or D.Sawyer (UTIG) will be invited to replace J. Mutter

FRG PANEL REPRESENTATION

U. von Rad reported on panel membership status for the F.R.G.

IOP: von Rad will be replaced by H. Backer
SSP: Meyer is the new member
WPAC: H.R. Kudrass is replacing Schluter
PCOM: Beiersdorf will attend the next PCOM; von Rad will be PCOM representative thereafter

REGIONAL PANEL STATUS

The concerns of J.Austin on the status of inactive regional panels (those in whose area the RESOLUTION is not scheduled to drill for some years) prompted two motions from U. von Rad:

PCOM Motion:

> In order to reduce the enormous strain on budget and time on the panel and liaison members, I move that the regional panels and subject panels should not meet more often than two times per year, unless there is an explicit demand by the PCOM (Chairman) for a third meeting. Panel chairmen should consider other means of communication such as letter voting, telemail, phoning (increased panel chairman budget?) to make sure that their important input reaches PCOM in case they do not meet directly before a PCOM meeting. (motion von Rad, second Kastner)

Discussion:

B.Taylor, the lone attending panel chairman, was asked to contribute. He emphasized that the panels wanted their meeting schedules to coordinate with the PCOM meeting schedule. Two meetings per year for the regional panels whose area the ship is headed would not be too few. Robinson said that having panel meetings close to PCOM makes assimilating all the data difficult at PCOM meetings. The non-U.S. partners agreed that sending liaisons and panel members to many meetings was a financial burden. Flexibility in best handling the panel meeting schedules was encouraged by PCOM.

Vote: 16 for, 0 against, 0 abstain

PCOM Motion:

> Regional panels should be dissolved or reduced to a core panel not meeting more than once per 18 months one year after the last leg has been drilled in that region. (motion von Rad, no second)

Discussion:

PCOM felt von Rad's first motion sufficiently dealt with "inactive" panels. For the immediate situation with the ARP, PCOM agreed that the panel meeting could coincide with the South Atlantic drilling workshop.

Straw Vote: 0 for, 15 against, 1 abstain

644 NEW ODP SEDIMENT CLASSIFICATION

SOHP had made recommendations to the revised ODP sediment classification. von Rad said that his contacts, in general, agreed with the SOHP suggestions; a clearer tabulation of the classification is also needed. Kastner suggested that PCOM vote to accept the classification after these revisions have been incorporated. TAMU will be asked to send the revised document to SOHP for review.

645 FUTURE MEETING SCHEDULE

Pisias asked that the meeting schedule coordinate with the new budget process and the following dates were found acceptable:

10-12 April 1987	College Station, TX
26-28 August 1987	Japan
30 Nov - 4 Dec 1987	Oregon

646 OTHER BUSINESS

CRUISE STAFFING

A. Meyer discussed cruise staffing procedures . If the USSR joins ODP, the number of onboard scientists will potentially increase to 28 per cruise. The average number per cruise has been 21 through Leg 112, but the increase could probably be accommodated. Meyer presented charts and tables showing the balance by participating countries through Leg 114 Appendix P) TAMU has asked PCOM to nominate co-chiefs 12-14 months ahead of the leg so that staffing con proceed smoothly. An "ideal" timetable for cruise participation was presented (Appendix Q). Meyer specifically asked for non-U.S. nominees for Leg 115-118 and for U.S. applicants for Legs 115 and 116.

ARCTIC DRILLING

An Arctic Working Group has been suggested with an emphasis on margin drilling as a way to increase ODP interest in these areas.

PCOM requests that a participant from the recently convened workshop on Arctic drilling present a report at the next PCOM meeting,

DENNY HAYES

PCOM Motion:

That PCOM thank Dennis Hayes for his service as Lamont's PCOM member throughout the lifetime of ODP and during the closing years of DSDP. His broad knowledge of the Earth Sciences, corporate memory of JOIDES, and mission-oriented approach to planning have been of great value to the Committee's planning efforts. (motion Larson, second Brass)

Vote: 15 for, 0 against, 1 abstain

D. Hayes abstains due to conflict of interest; afterwards he expressed his appreciation and gratitude.

There being no further business to consider, the meeting was adjourned.