

23-26 OCTOBER, 1979 PCOM MINUTES

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APPENDIX I Summary of the History and Present Status of Reference Collections of DSDP Microfossils

ACTION ITEMS

<u>Page</u>	<u>Item</u>	<u>#</u>	<u>Responsibility</u>	<u>Subject</u>
5	282	III, B	EXCOM/PCOM Subcommittee	Review DSDP books and make suggestions about possible budget changes to provide money for logging
5	282	III, B	PCOM	Prepare "doomsday" scenarios to ensure logging on all legs
5	282	IV	DSDP	Investigate using color reproductions in I.R.'s
8	283	II, B	NSF	Investigate possibility of JOI Inc. applying to NSF for a grant to make microfossil preparations at the Smithsonian Institution
9	284	I, A	U.S.S.R.	Nominates scientists for Legs 73-75 who would be willing to remain onboard the CHALLENGER for more than one leg, and possibly for an at-sea transfer for Soviet scientist
9	284	I, A	DSDP	Investigate using non-South African port for Leg 74, and possibility of an at-sea transfer for Soviet scientist
10	284	II, B	OCP	Make formal presentation of geochemical transect problem and information at February PCOM meeting
11	284	III, B	Ad-hoc Caribbean W.G.	Prepare plans and rationale for Caribbean leg
11	284	III, B	Von Huene	Contact Garrison about preliminary safety review of CAR-1 at November Safety Panel Meeting
11	284	III, C	AMP	Submit more detailed plans for a synthesis volume
12	284	IV	PMP	Prepare detailed plans for the North Atlantic Program and give presentation at February PCOM meeting
12	284	IV	PMP	Nominate co-chief scientists for North Atlantic legs

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DRAFT MINUTES

JOIDES PLANNING COMMITTEE MEETING
23-26 October, 1979--Moscow, USSR

PCOM Members

Heirtzler, J. (Chairman, WHOI)
Audley-Charles, M. (U.K.)
Bock, W. (RSMAS)
Bryant, W. (Texas A&M)
Creager, J. (Univ. of Wash)
Dymond, J. (Oregon State)
Hayes, D. (LDGO)
Helsley, C. (HIG)
LePichon, X. (France)
Moore, T. (URI)
Nikitin, L. (USSR)
Riedel, W. (SIO)

Von Rad, U. (Germany)
Winterer, E. L. (SIO)

Moore, D. (DSDP)
O'Connell, S. (JOIDES Office)
Theyer, F. (NSF)

Guests

Artyushkov, E.
(Academy of Sciences, USSR)
Bogdanov, N.
(Inst. of the Lith., USSR)
Dmitriev, L.
(Academy of Sciences, USSR)
Dubrovskii, V.
(Academy of Sciences, USSR)
Grachev, A.
(Inst. Phys. of Earth, USSR)
Krasheninnikov, V.
(Geological Inst., USSR)
Lobkovskii, L.
(Academy of Sciences, USSR)
Lubimova, E.
(Academy of Sciences, USSR)
Nazazova, E.
(Inst. of Lithosphere, USSR)
Schneider, A.
(Academy of Sciences, USSR)
Tsvetkov, A.
(Academy of Sciences, USSR)
Udintzev, G.
(Inst. Phys. of Earth, USSR)

280 INTRODUCTORY REMARKS

The PCOM and guests were welcomed to the Soviet Union and the Institute of the Lithosphere. Logistics for the meeting were discussed, including arrangements for trips to several Soviet geoscience institutes. An agenda was adopted.

281 ACTION ITEMS FROM PREVIOUS
PCOM MEETINGS

Item 243, I, B, 2a--I.R./ICD Microfiche

The cost of producing microfiche masters for I.R. Volumes 1-42 is estimated to be \$1,050. DSDP has agreed to fund this and production is underway. When microfiching is completed, announcements of their availability, on a cash basis, will be made in Geotimes and the JOIDES Journal.

Item 270, V--"Ship Fitness" Report

Prior to the meeting a report listing the GLOMAR CHALLENGER work history, from December, 1978 to September, 1979 and the tentative projected work schedule for 1980 was prepared by DSDP (MacTernan) and distributed to the PCOM members. After discussing the report, the PCOM requested that DSDP prepare an additional report, prior to the February PCOM meeting, evaluating the CHALLENGER's performance capability for the 1981-83 time frame. The report should include data on mechanical down time for the ship and drilling equipment (as separate items) by quarter, for the last five years. Bud MacTernan will be asked to come to the February meeting and discuss this report.

Item 272 II, B--Safety Panel Membership

At the August EXCOM meeting several problems concerning the mode of operation of the Safety Panel were discussed. In the interest of broadening the background and experience of the Safety Panel, it was recommended that the panel size be increased. Three additional people were nominated for membership:

Mr. Brian E. Davies
Dr. David B. MacKenzie
Mr. A. J. Horn

The new members were accepted unanimously by the PCOM. In addition, a review of the current Safety Panel membership showed that some members, such as the AAPG appointed member, have been serving on the panel for a long period of time. It was suggested that the PCOM chairman discuss with the EXCOM chairman rotating the AAPG nominee. It was also considered desirable to have a new member with a distinguished petroleum-oriented background, particularly in the area of thick continental margin sequences.

Item 272 V, A--Corrections to Geochemical Data Base

The Inorganic Geochemistry Panel had not requested that a separate errata volume be published. They would like to see a procedure developed to insure that when corrections to the geochemical data base are submitted, the changes are made in a timely fashion. This will be discussed with the IHP when it meets at SIO in January.

Item 272, VIII, A--Tertiary Data Base

The problem of encoding the Tertiary Data Base is a problem of money. The IHP will address this problem again at their January meeting. Progress, however, is being made, Legs 27-39 are completed, and Legs 1-15 should be finished in the next few months.

Item 275 III--Use of EXPLORER during 1981-83

The EXPLORER will not be available for drilling or hydraulic piston coring during 1981-83. Current plans call for it to be undergoing conversion during that time.

282 DSDP REPORT

I. CHALLENGER OPERATIONS

A. Leg 68/Site 501

Leg 68/Site 501 successfully drilled one hole before an emergency drydocking. Site 501 penetrated 73 m of basalt. Several downhole instruments and experiments were successfully deployed. These included resistivity measurements, a downhole magnetometer, a Bore Hole Televiewer, a Packer, and a full logging program.

When the Packer was left on the drill string during drilling, it gradually inflated, and then was ripped by the sharp material in the hole. To prevent this, it is necessary to trip the bit and send the Packer down separately. Lynnes is also working on a means to prevent this.

B. Leg 68/HPC

The HPC leg was considered to be a success. Undisturbed cores were recovered showing cyclic variations in color and carbonate content and perfectly preserved, open burrows, some with intact fecal pellets. Long core spinner magnetometer measurements indicate that the paleomagnetic stratigraphy is carefully preserved.

C. Leg 69

This leg was still in progress at the time of the meeting. Two holes had been drilled, Site 504, adjacent to Site 501, and Site 505. A more detailed report of the results will be given at the February PCOM meeting.

II. DEVELOPMENTAL ENGINEERING

A. Pressure Core Barrel (PCB)

The PCB is currently at DSDP undergoing refurbishment. Testing of each of the units will be conducted at the Hydraulic Lab during November, 1979. Two complete PCB units and two additional spare ball valve assemblies will be onboard the CHALLENGER when it is deployed. Sea trials are scheduled for Leg 72 and full operation is planned for Leg 74 or 75.

B. Hydraulic Piston Corer (HPC)

Based on the success of Leg 68/HPC, an HPC Development Program has been detailed to further improve performance. Items considered for design modifications are the core liner, core catchers, and core orientation. Collapse of the liners and failure of the core catchers were the two major problems with core recovery during Leg 68/HPC. Core orientation is available now but it's not very reliable. It is considered to be a long-term development.

Design is also continuing on the non-trip HPC system which will enable piston coring to be followed by rotary drilling without having to trip the pipe. This has been given the highest priority. By Leg 71 it is expected to have a system for dropping the bit. Work is continuing on developing a longer core barrel, but this has been given second priority. During Leg 68/HPC it was found

that the work load created by a 4.4 m core was about the maximum that could be handled. Paleomagnetism and GRAPE-ing were the limiting factors. Preventing even minor bending in the longer cores, which upsets the paleomagnetic stratigraphy, may also be a problem.

A second HPC (HPC-II) is under development. It is anticipated that this will be designed to obtain several different core lengths, depending upon the material being cored. In addition, corrosion resistant materials will be used in the most critical parts. Sea trials for the HPC-II are planned for Leg 74 or 75.

Vessel modifications are also being discussed to minimize the interference when retrieving and handling the cores. The use of heatflow probes in conjunction with the HPC are also being investigated.

Plans for the South Atlantic Program involve extensive utilization of the HPC. DSDP has prepared a developmental schedule to make the HPC as efficient as possible for these legs. As improvements are made, DSDP was asked to keep the co-chiefs in the technical development loop.

C. Extended Core Barrel

A first prototype of the extended core barrel is scheduled for Leg 71, with a more final version planned for September, 1980. The system is being designed to ensure that the landing and latch system are compatible with the HPC. This will allow the extended core barrel to be used when piston coring is terminated without tripping the drill string.

III. LOGGING

A. Soviet Logging Tools

The person in the Ministry of Geology who is in charge of the logging will be away until the end of October. The practical details of the program will be worked out when he returns and a report will be prepared in time for the EXCOM meeting.

B. U. S. Funding for Logging

With the increase in fuel costs, the FY'80 budget only has enough funds for logging one South Atlantic leg. The NSF and the EXCOM's position on logging is clear--all holes must be logged. It was suggested that a sub-group be formed to spend a few days at DSDP and review the books. This subgroup should suggest possible budget changes which could be made to provide money for logging. Several years ago a group consisting of Knauss, Maxwell, and Creager reviewed the books. It was suggested that the same, or a similar, group review the books again. One change in the review group could be the substitution of the PCOM chairman. With this information, the PCOM should prepare various "doomsday" scenarios.

IV. COSTS OF CURATING HPC CORES IN ONE OR TWO REPOSITORIES

The HPC cores recovered during Leg 64 were strip photographed in both black and white, and color. This was considered to be successful. It was suggested that all cores, and particularly HPC cores, be strip photographed. This would allow leg participants to have microfilms of all of the cores on their legs. These photographs could also be used by scientists requesting samples. The photographs can be enlarged and projected onto acetate, printed, and run through an ozalid machine, providing large core photographs.

Continuous strip cameras, however, are very expensive. DSDP is currently using a camera developed and operated by T. Chase, of the U.S.G.S., Menlo Park. DSDP pays his and any technicians' expenses while they are photographing the cores. These expenses would be increased if he had to travel to the east coast core repository. It was suggested that expenses might be cut by using the strip photographs in the I.R.'s. Prior to Leg 45, the cores were individually photographed. The present method of group photography was not considered by some to be adequate.

DSDP is also buying an x-radiograph to use on the cores. The X-rays should be taken at the same time as the photographs. It was considered unwise to photograph and X-ray the samples at DSDP and then ship them to LDGO. The costs of preparing the cores for photographing (e.g. scraping and arranging) were thought to be minimal, and funds could be found at LDGO. In addition, LDGO already has an x-radiograph, so X-raying the cores would not present a

problem. The consensus was that it was important to keep the HPC cores and the rotary drilled cores for each site together, and therefore two HPC repositories should be maintained.

It was suggested that money for a strip photography camera be included as a high priority in the FY '81 budget. It may be possible to shoot the photographs onboard the ship. This would certainly give the best color renditions. With the many recent advances in color photography, it may be possible to use color reproductions in the I.R.'s. It was suggested that DSDP check with the Dolphin Marine Station which uses color reproductions in its reports.

V. STAFFING

A. Co-Chiefs

Co-chiefs for Legs 71-75 have been selected. They are as follows:

Leg 71

V. Krasheninnikov
W. Ludwig

Leg 72

P. Barker
D. Johnson

Leg 73

K. Hsu
J. LaBrecque

Leg 74

T. Moore
P. Rabinowitz

Leg 75

W. Hay
J. Sibuet

B. Scientific Staffing

Xeroxed sheets listing OPP staffing recommendations and people who had submitted bibliographies expressing an interest in the South Atlantic were distributed. Staffing was not discussed on a leg-by-leg basis. PCOM members were asked to make specific recommendations or comments on an individual basis to DSDP.

283 NSF REPORT

I. EXPLORER ENGINEERING SUPPORT SERVICES CONTRACT

The EXPLORER Engineering Support Services contract has been let to Santa Fe Engineering Services Company of California. They are reviewing the previous studies and cost estimates. A preliminary review should be ready by early November.

II. Paleo Reference Centers

A. Background

A history of the development, and current status of the reference collections of DSDP microfossils is given in Appendix I. Originally five reference centers were planned--North America, Western Europe, U.S.S.R., Japan, and the South Western Pacific. Criteria were developed that the selected reference centers were supposed to meet, including permanence and sample preparation. The Natural History Museum in Basel, Switzerland was accepted as the Western European Reference Center. Their curator, J. B. Saunders, has been preparing foraminiferal samples in sets of five.

The Smithsonian Institution was asked to be the North American repository, but they were unable to assist in the preparation of the microfossil samples. The PCOM voted to have Scripps Institution be the North American repository. State of California funds were authorized to make the necessary fossil preparations.

B. Current Status

The National Science Museum in Tokyo has agreed to be the Japanese repository and has agreed to prepare the

diatom samples. The New Zealand Geological Survey has offered to act as a repository. This offer is under consideration. Negotiations with the U.S.S.R. are underway. Two possible candidates are the Institute of the Lithosphere and the Institute of Geology.

NSF has asked that the Smithsonian Institution become a U.S. repository. This poses a problem because some of the samples have already been split and only five sets of samples were prepared. The Smithsonian Institution has difficulty obtaining the funds to prepare samples because it is seemingly barred from applying to NSF for grants. Someone else must apply for the grant. Possibly JOI could apply. They agreed to investigate this possibility. Sanders at Basel is going back and removing small foraminiferal samples from his five original splits.

Discussion developed concerning the suitable number of samples to be made, and where they should be located. The CHALLENGER was suggested as a repository. Although it does not meet the permanence requirements, it would be well utilized, and its presence would be an added bonus for paleontologists onboard the CHALLENGER.

T. Moore moved, Winterer seconded, that the PCOM endorse the establishment of three additional micro-paleontological reference collections; one to be housed at the Smithsonian Institution, a second to be kept onboard the GLOMAR CHALLENGER, and a third to be kept in abeyance. Vote: 7 for, 0 against, 5 abstain. Motion passed.

284 COMMITTEE & PANEL REPORTS

I. EXCOM

A. 1979-81 CHALLENGER Schedule Revisions

Under the new schedule the North Atlantic program is not impacted by either the drydocking or the HPC leg. Discussion developed concerning the appropriateness of both the PCOM and EXCOM actions, and no consensus was reached. The schedule change, however, clearly reduced the overall amount of drilling time that was lost because of the emergency drydocking.

In the new schedule, three consecutive legs have a port call in South Africa. This will make it impossible for a Soviet to board or leave the ship at this time. The Soviets agreed to investigate the possibility of selecting a scientist who could stay on for two legs, and of a transfer at sea. The transfer could take place at any time, not just at the beginning or end of the leg. PCOM members were asked to check their ships schedules to see if they would have a ship that was not originating from a S. African port in the vicinity of the CHALLENGER during Legs 73-75. The transfer ship would not have to be a research vessel. DSDP agreed to investigate the possibility of using a non-South African port. Luanda was suggested, but may not be possible because the U.S. does not apparently have diplomatic relations with Angola and DSDP has no contacts there. Time available for making the arrangements is also short. All of the S. Atlantic legs have suffered substantially time reductions, and extra days lost to steaming would seriously jeopardize the scientific integrity of the program.

B. 1981-83 CHALLENGER Proposal

Three of the problem panels met recently and have submitted additional and/or revised material for the 1981-83 proposal. To be received by the EXCOM prior to their meeting, the proposal must be mailed by November 20. Several PCOM members will be at the GSA meeting in San Diego and agreed to meet at DSDP at that time or later to finalize the narrative part of the proposal.

II. OCEAN CRUST PANEL

A. Revised Schedule

The OCP was distressed by the adjustments to the CHALLENGER schedule recommended by the EXCOM. The new schedule eliminated approximately 10 days (20% of the drilling time) from Leg 70, seriously jeopardizing the scientific objectives.

B. Geochemical Heterogeneity Proposal

The OCP had been asked to consider relocating the proposed geochemical transect on the eastern side of the N. Atlantic, so that the sites could also meet OPP

objectives. Although the objectives could probably be met on the eastern side, the OCP is opposed to this change because of the extent of the work that has already been done in the western North Atlantic, particularly the better magnetics and site surveys there.

A document prepared by J. Tarney and M. Treuil discussing the mantle heterogeneity problem and OCP proposal to investigate this problem was distributed. The PCOM felt that although the mantle heterogeneity proposal was a good step towards defining a testable problem, it was not presented in thorough enough detail to be evaluated. The OCP was asked to make a more formal presentation at the February PCOM meeting, at which time the entire N. Atlantic program would be reviewed.

C. Other Ocean Crustal Problems

L. Dmitriev gave a presentation describing basalt heterogeneities that he has observed in oceanic basalts that can be attributed to different depths of partial melting. He suggested relocation of some of the Leg 73-75 holes. These legs are already short and the objectives have already been paired. Dmitriev was asked to write a letter proposing this drilling to the OCP with copies to the JOIDES Office.

The OCP gave the reoccupation of Site 395 for instrumentation a lower priority than the geochemical transect, but thought that it might be possible to incorporate it in the geochemical transect.

In further discussion, it was suggested that the OCP expand its view of the ocean to include many of the off-ridge volcanic properties. It was pointed out that technological capabilities have severely limited the success of the OCP objectives in fresh basalt.

Two members are resigning from the OCP, J. Bishoff and J. Orcott. To replace them, J. Honnorez and R. Stephen were nominated. The PCOM accepted these nominations by consensus.

III. ACTIVE MARGIN PANEL

A. PCOM-Related Issues

The AMP disagreed with the statement in the PCOM minutes that Leg 66 met Leg 67 objectives. Neither leg penetrated the fault plane under the accretionary wedge.

B. Caribbean Drilling

The AMP reaffirmed its interest in drilling into the Barbados Ridge (CAR-1) as its highest priority. PCOM suggested that a subgroup of the Caribbean Working Group meet for 1 or 2 days before the February PCOM meeting to review Caribbean drilling plans. It was suggested that this group include Von Huene, Sheridan, Ludwig, Montadert, and Watkins. The results of this meeting should be presented for PCOM evaluation at the February meeting.

Detailed geophysics are already available for this area. Since some safety problems may be encountered, it would be advantageous to have this material preliminarily reviewed by the Safety Panel. They meet next at W.H.O.I. on 19 and 20 November. Von Huene will be asked to contact Garrison to see if sufficient time is available for a preliminary review of CAR-1.

C. Synthesis Volume

The AMP also plans to produce a synthesis volume compiling active margin results from IPOD. Both GSA and Tokyo press have expressed an interest in publishing the book. Another synthesis volume is being prepared primarily by the SETAR group, and is expected to be available this summer. The SETAR volume will be an AGU monograph containing information about active margins and back-arc basins. Many of the Legs 57-60 participants have contributed information.

The PCOM favored the principle of a synthesis volume. Before JOIDES approval is given, however, more detailed plans for the volume must be available. This should include authors and papers, and editors.

IV. PASSIVE MARGIN PANEL

The North Atlantic program will begin at the end of the summer (1980). The PCOM would like the PMP to present the details of this program at the next (February) PCOM meeting. Approximately half a day will be allotted for this presentation. Two or three members (including the chairman) will be invited to give the presentation.

The PMP was also asked to make recommendations for co-chiefs for these legs. Co-chiefs for at least the first few North Atlantic legs will be selected at the February meeting.

V. OCEAN PALEOENVIRONMENT PANEL

A. Legs 71 & 72

The last OPP meeting focused primarily on South Atlantic drilling plans, particularly Legs 71 & 72. Legs 71 and 72 are designed to examine the deep circulation and climatic changes in the Mesozoic and Cenozoic Southern Oceans. The objectives, location, and estimated drilling time for these sites are given in the minutes to the OPP meeting (5-6 September, 1979). Since their meeting, permission was obtained from the insurance company to drill Site W-12, located 1° S of 50° for a period of not more than a week.

Because of the reduced number of operational days on Legs 71 & 72, the OPP requested that sites be prioritized with respect to their logging potential and recommended that logging be restricted to the deeper holes at sites AB-6, 7, 8, and possibly 10 and W-12. International agreements with NSF and the EXCOM, state that all sites must be logged. It is possible that an exception could be made, but a very strong case would have to be presented.

B. Legs 73-74

Leg 73 is designed to transect the South Atlantic Ridge to examine Tertiary Oceanography, particularly fluctuations in CCD and lysocline. Each site is located on a magnetic anomaly as part of a designed age-depth traverse.

Sites on Leg 74 have been located to focus on the time and place that the CCD and lysocline are changing most rapidly. A request was also made to not log some of these sites.

C. Leg 75

Leg 75 is designed to look at Mesozoic problems on the flanks of the Walvis Ridge and in the Angola Basin, particularly the Cretaceous anoxic event.

D. Membership Changes

Y. Lancelot resigned the OPP chairmanship. This position was assumed by R. Douglas. Three members submitted resignations effective during the next several months:

H. Thierstein	Effective 30 September, 1979
K. Hsu	Effective 1 January, 1980
N. Shackleton	Effective 1 March, 1980

R. Douglas is a new member. Two further nominations were made.

T. Moore moved, Creager seconded, that W. Rudiman and J. Hays be approved as new members of the OPP. Passed unanimously.

E. Other Business

The OPP endorsed R. Larson's site survey proposal in the Mariana and Nauru Basins. The OPP endorsed the concept of a long barrel, large diameter, punch core system, and recommended that DSDP initiate an engineering assessment.

VI. ORGANIC GEOCHEMISTRY PANEL

The Organic Geochemistry Panel made several recommendations to DSDP regarding shipboard and shorebased sample collecting, analysis, and curating. These include the need for more temperature information at DSDP sites, and the removal of the Rock-Eval to DSDP where it can be operated by a trained technician. They would also like the shipboard organic geochemist to be well versed in possible safety problems. This could be done by attending the Safety Panel meeting, or by a thorough briefing at DSDP. Several recommendations were made regarding clathrate monitoring and the OGP supported the development of a modified PCB to close on frozen core. There was substantial disagreement about recommendations for canning (vs. bagging) gassy samples.

The OGP recommended that the sampling procedure for organic geochemistry samples be modified for samples taken from HPC cores. When rotary drilled cores are sampled, 30 cm of the whole core are removed every 30 m and frozen. Because of the importance of HPC cores for showing fine scale variations, the OGP recommended that 60 cm of half the core be removed every 30 m, despite the possibility of contamination that this might induce. By consensus, the PCOM agreed to this change.

One panel member, John Kendrick of Shell, resigned. The OGP recommended Philip A. Meyers of the University of Michigan to replace him. The PCOM accepted this recommendation by consensus.

285 EXPLORER PLANNING

The representatives from the non-U.S. countries were asked to comment on the status of their countries' interest in, or plans to participate in the EXPLORER program. All of the representatives agreed that it was difficult for their countries to decide whether or not to participate until they knew what the program was going to be, e.g. how much resource evaluation and how much science, the expected role of the non-U.S. countries in the program, and the cost. Discussions are underway in France. Germany is very interested. R. Brett from NSF has been asked to give a presentation about the program in Germany, and a letter of intent to participate in the EXPLORER program has been sent to the U.S. The U.K. is also interested in participating and hopes to be able to formulate a final policy within the next six months. As expressed, their major concern was financial. If the cost per country is high, would it be possible to increase the number of participating countries, or find a less expensive way to carry out the program. The U.S.S.R. expressed an interest, but is also waiting to learn more about the details of the program. Japan was not represented.

The EXPLORER program has a sense of momentum in the U.S. The Blue Ribbon Committee report* is out and was favorable. The National Research Council's engineering review (Hocott) committee plans to have its report out in January. High-level negotiations are underway between the petroleum industry and the NSF. It is hoped that these negotiations will have reached a more final state by the EXCOM meeting.

A new ad hoc EXPLORER planning committee is being established in the U.S. to address the development of the EXPLORER program. Both industry and the government want to be sure that the EXPLORER plans be based on on a strong scientific program. NSF is interested in the ultimate participation of the non-U.S. countries

286 1981-83 CHALLENGER PROPOSAL

As stated in the Action Items, the 1981-83 CHALLENGER proposal is being rewritten and will be submitted to EXCOM and SIO. The IPOD representatives were again asked to state their countries' intent. They are waiting until the U.S. makes a clear statement of

*Everyone should have received a copy of this report. If you don't have a copy, please request one from: Ocean Sediment Coring Program, Division of Earth Sciences, National Science Foundation, 1800 G Street, N.W., Room 602, Washington, D. C. 20550.

its intent. They agreed that if there were a program break and funding stopped, that it would be very difficult to regain the funds. Von Rad expressed the concern, felt by a majority of the Germans, that the current proposal leaned too heavily on hydraulic piston coring. He will send a letter with details.

287 CLOSING REMARKS

D. Moore is resigning as DSDP chief scientist. The PCOM thanked him for his help.

J. Heirtzler is resigning from the PCOM chairmanship to take a position as Director of Scientific Research at JOI Inc. He was thanked for his help. J. Ewing will assume the PCOM chairmanship until the JOIDES Office rotates to SIO in July.

The Soviet hosts, particularly N. Bogdanov, L. Nikitin, and E. Nazazova, were thanked for arranging the meeting.

288 FUTURE MEETINGS

The future meeting schedule is as follows:

25-29 February, 1980

Washington, D.C.

Benson to arrange with JOI

This is the annual meeting with the Panel Chairmen. The PCOM expressed the concern that Panel Chairmen keep their reports brief. This is especially true for panels which meet only once a year and have already had their activities discussed.

02-04 July, 1980

Paris

LePichon to arrange with JOI

15-17* October, 1980

URI

T. Moore to arrange with JOI

*The Alton Jones Campus was not available for the first choice of dates.

Summary of the History and Present Status of
Reference Collections of DSDP Microfossils

Early in 1975, geologists from two West Coast oil company laboratories independently pointed out to me, as DSDP Curator, an anomaly in the accessibility of DSDP samples to micropaleontologists - namely, that researchers could rather easily obtain samples for micropaleontological investigations leading to publishable papers, but the many industrial paleontologists had no way of even examining these materials for comparative purposes not leading to publication. This was clearly an unnecessary impediment to biostratigraphic progress in general, and I proceeded to seek a solution in consultation with the JOIDES Planning Committee and Panel on Biostratigraphy and Paleontology, and the administration of DSDP.

Through these consultations, a plan was evolved including the following points -

- 1) There would be up to five micropaleontological reference collections, one on each continent or subcontinent in which there was active study of DSDP microfossils (North America, western Europe, USSR, the Japanese region, and Australia-New Zealand).
- 2) Because of the incidental scientific benefits that would accrue to them, the institutions housing these reference collections would provide the labor to make microscopic preparations from raw samples, facilities for visitors to examine the collections, and safe custody of the materials based on a solid tradition of curating geological collections.
- 3) In order that the preparations should be made economically, each institution housing a collection would be responsible for the preparation of one kind of microfossil, in five copies (one for each institution). The microfossil groups to be covered are foraminifera, radiolarians, diatoms and calcareous nannofossils. Since the last-mentioned group are easily prepared, the institution taking that responsibility would prepare also lithologic smear slides. Thus, there are five kinds of preparations envisaged (two of them by one institution), and five institutions. One institution would be freeloading, until it eventually took on a share of the most difficult microfossil group to prepare. This is being kept open for future flexibility.
- 4) The reference collections would be established in a careful and deliberate way, under the supervision of the DSDP Curator.

By the middle of 1975, the Natural History Museum in Basel, Switzerland had offered to house the western Europe reference collection, and agreed to meet the conditions outlined above. Mr. J. B. Saunders is their curator responsible for the collection, and has been proceeding actively with making the preparations of foraminiferal materials in five sets. About 800 samples have been taken for this purpose, as of June 1979 (see attached list).

At the same time that arrangements were commenced with the museum in Basel, I suggested to the Smithsonian Institution that they would be the appropriate place to house the North American collection. After almost two years of discussions, the Smithsonian concluded that they could not commit the necessary effort to take a share of the load of making the microfossil preparations. This conclusion was brought to the JOIDES Panel on Stratigraphic Correlation at its meeting of 18 May 1977 (by its chairman, R. H. Benson of the Department of Paleobiology of the Smithsonian). The Panel discussed other possibilities, and, as recorded in its minutes, concluded that "the alternative seems to be to house the second Reference Collection at DSDP headquarters at Scripps Institution of Oceanography".

That suggestion was brought to the JOIDES Planning Committee meeting of 2 May 1978, where a motion to establish the second reference collection at Scripps Institution was approved by a vote of 11 for, 0 against, and 1 abstention. Three days later, Scripps' Director authorized the expenditure of State of California (not DSDP) funds to make the necessary microfossil preparations. Scripps then commenced making the slides for calcareous nanofossils and lithology, and they and the other components of the North American reference collection will be housed in close proximity to the West Coast Repository of DSDP cores.

Having thus established two of the five envisaged reference collections, I initiated discussions with the Japanese with a view to establishing the third in their country. The reason for moving in that order is that Japan is judged to be easier, logistically, than the USSR and Australia/New Zealand. To that end, I visited several Japanese paleontological institutions in November 1978, and was satisfied that the National Science Museum in Tokyo (at least) had suitable facilities and curatorial traditions. By August of 1979, the Japanese were able to affirm their commitment to support a reference collection of DSDP microfossils, by offering to make the diatom preparations as their share of the workload.

In September of 1979, D. Graham Jenkins transmitted to me an offer from the New Zealand Geological Survey to act as the repository of the Australian/New Zealand reference collection. It remains to be determined (1) whether they understand fully the requirement to share in the work of sample preparation, and (2) whether there are similarly qualified candidate institutions in Australia. In an attempt to resolve the latter question, I am making enquiries through the Geological Society of Australia.

At the JOIDES Planning Committee meeting in July of 1979, it was suggested that the Smithsonian be re-considered as a repository of one of the reference collections. There was some indication that NSF might provide them with funds to take their share of the load of sample preparation. It is not yet clear how to resolve the problem that the samples already taken (and commitments of effort in sample preparation) are sufficient for only five sets of preparations, and the Smithsonian set being considered would be a sixth one. This needs to be thought through in greater depth, bearing in mind also that it may be desirable to have a reference collection on the drilling ship, and that it is easier to split a foram sample into four or eight parts, than into five or six.

It is anticipated that discussions concerning a possible location for the USSR reference collection will commence during the Planning Committee meeting in October of 1979.

I would estimate that the second half of 1980 might be an appropriate time for an announcement of the availability of the first two of these reference collections. By then, there should be enough preparations of forams, nannofossils and lithologic smears to form a useful nucleus. [As a first step in distributing preparations among reference collections, I will take the first batch of nannofossil and lithologic smears to Basel next week.]

W. Riedel
10 October 1979

On 10/4/76, from Hole	2,	cores 1-4,	9 samples were taken for forams
			9 samples were taken for nannos & lith.
	3,	1-10,	12 " " " " forams
			12 " " " " nannos & lith.
	4,	2,3,	4 " " " " forams
		29B-31,	28 " " " " nannos & lith.
	4A,	1-2,	2 " " " " forams
			2 " " " " nannos & lith.
	6,	2-6,	7 " " " " forams
			7 " " " " nannos & lith.
	8,	2,	1 " " " " forams
			1 " " " " nannos & lith.
	8A,	1,	1 " " " " forams
			1 " " " " nannos & lith.
	9,	1,	1 " " " " nannos & lith.
		5,	1 " " " " forams
			1 " " " " nannos & lith.
	9A,	1,	1 " " " " forams
			1 " " " " nannos & lith.
	10,	1-18,	33 " " " " forams
			33 " " " " nannos & lith.
	11,	1,	5 " " " " forams
			7 " " " " nannos & lith.
	11C,	1,	3 " " " " nannos & lith.
	12C,	1,	3 " " " " forams
On 6/2/77, from Hole	13,	1-3,	7 " " " " forams
	13A,	1-4,	3 " " " " forams
	14,	1A-9,	19 " " " " forams
	15,	1-8,	16 " " " " forams
	16,	1-11,	9 " " " " forams
	17,	1,2,	3 " " " " forams
	17A,	1-4,	7 " " " " forams
	17B,	1-4,	6 " " " " forams
	18,	1-6,	6 " " " " forams
	19,	1-11,	17 " " " " forams
	20A,	1-2,	3 " " " " forams
	20B,	1,	3 " " " " forams
	20C,	1-6,	20 " " " " forams

On 6/2/77,	from Hole	21,	cores	1-8,	14	samples	were	taken	for	forams
		21A,		1-3,	6	"	"	"	"	forams
		22,		1-5,	9	"	"	"	"	forams
		23,		4,	1	"	"	"	"	forams
		24,		4,	1	"	"	"	"	forams
		25,		1-4,	9	"	"	"	"	forams
		26,		1,5,	2	"	"	"	"	forams
		27,		1-7,	4	"	"	"	"	forams
		28,		2,3,	2	"	"	"	"	forams
		29,		1-18,	16	"	"	"	"	forams
		29B,		1-9,	8	"	"	"	"	forams
		30,		2-16,	19	"	"	"	"	forams
		31,		1-10,	9	"	"	"	"	forams
On 7/28/77,	from Hole	32,		1-12,	10	"	"	"	"	forams
		33,		2-11,	9	"	"	"	"	forams
		34,		1-16,	14	"	"	"	"	forams
		35,		2-14,	6	"	"	"	"	forams
		36,		1-13,	15	"	"	"	"	forams
		37,		2-4,	3	"	"	"	"	forams
		38,		3-6,	3	"	"	"	"	forams
		39,		2,	1	"	"	"	"	forams
		40,		2-15,	6	"	"	"	"	forams
		41,		1,2,	2	"	"	"	"	forams
		42,		1-10,	9	"	"	"	"	forams
		44.0,		1-4,	6	"	"	"	"	forams
		47.2,		2-14,	36	"	"	"	"	forams
		48.2,		2,	2	"	"	"	"	forams
		49.1,		2,	2	"	"	"	"	forams
		55,		1-13,	14	"	"	"	"	forams
		56.3		1-10,	11	"	"	"	"	forams
		57.1		1-4,	4	"	"	"	"	forams
		57.3		1,	1	"	"	"	"	forams
		60,		1-4,	3	"	"	"	"	forams
On 1/10/77,	from Hole	62.1,		1-39,	24	"	"	"	"	forams
					24	"	"	"	"	nannos & lith.
		63.1,		5-14,	10	"	"	"	"	nannos & lith.
		64.1,		1-10,	20	"	"	"	"	forams
					20	"	"	"	"	nannos & lith.
		66.0,		3,	4	"	"	"	"	nannos & lith.

On	1/10/77,	from Hole	66.1,	cores 1-9,	16 samples were taken for	nannos & lith.
			69A,	1-10,	7	" " " " nannos & lith.
			70,	7,9,12,	3	" " " " forams
				5-12,	6	" " " " nannos & lith.
			70A,	5-25,	7	" " " " forams
				1-28,	11	" " " " nannos & lith.
			71,	1-47,	45	" " " " forams
					45	" " " " nannos & lith.
			72,	1,	2	" " " " forams
				1-6,	12	" " " " nannos & lith.
			72A,	1-6,	10	" " " " forams
					10	" " " " nannos & lith.
			73,	17-21,	9	" " " " forams
					9	" " " " nannos & lith.
			74,	8-11,	6	" " " " forams
					6	" " " " nannos & lith.
			77B,	1-52,	46	" " " " forams
					46	" " " " nannos & lith.
			78,	1-35,	17	" " " " forams
					17	" " " " nannos & lith.
			84,	2-28,	10	" " " " forams
					10	" " " " nannos & lith.