Report of the JOIDES Information Handling Panel Meeting

July 10-12, 1986; La Jolla, California

Summary

Section 1: DSDP Report. The Panel examined the status of completion of the DSDP data bases and publications and the transfer of data to NGDC. Particular attention was paid to the Index to the Initial Reports. All operations were found to be proceeding very well and on target for completion by April, 1987. The IHP urges JOI and NSF to expedite publication of Initial Reports now completed and awaiting printing, and asks that student key-entry help be provided to the Information Handling Group to ensure completion of the data bases.

Section 2: Micropaleo Reference Centers. The Panel took action to get this project speeded up. Processed samples are now being distributed to the individual centers. Results will be reported and the project evaluated at the December PCOM meeting.

Section 3: ODP Sampling Policy. IHP undertook a general review of shipboard and shorebased core sampling during the 12-month moratorium, as well as post-moratorium sampling. This was in response to questions raised by Dr. Biju-Duval of IFREMER as well as by the ODP Science Operator at TAMU. The Sampling policy discussion in the Shipboard Scientist's Handbook has been extensively revised to provide clear and workable guidelines conforming to PCOM and Panel decisions. It was emphasized that sampling policy is not completely rigid, and that co-chief scientists have the responsibility for changes in the Cruise Sampling Plan during the Cruise. The Procedures for requesting

samples are clear, both for cruise participants and post-moratorium. Requests for exceptions to existing guidelines for post-cruise sampling should continue to go through IHP and PCOM as at present.

Section 4: ODP Publications. Review of the status of Parts A and B of the Proceedings of the Ocean Drilling Program shows that excellent progress is being made now that the financial situation has been relieved. The publications are proceeding according to the plan for format and schedule previously approved by PCOM. On behalf especially of the non-U.S. members, IHP urges that PCOM issue a strong statement of committment to the publication of Parts A and B of the Proceedings, as much doubt remains from the confused situation of the past 2 years.

Section 5: ODP Data Base Group and Computer Services Group. Until now the highest priority for program development has gone to shipboard applications, so implementation of data base software is just beginning. Shorebased applications will now get higher priority for a while. The Computer Services Group is severely understaffed for the size of the operation and the number of tasks we expect them to complete; IHP recommends that ODP increase the programming staff as soon as possible.

Section 6: ODP Logging Operator Report. A very detailed report by C. Broglia, Logging Operator liaison to IHP, answered all of the questions raised by Dr. Biju-Duval regarding accessibility and distribution of the logging data. A detailed plan for publication of the routine logging data in Part A of the Proceedings was examined, modified and approved; it conserves

space and costs, avoids encouraging spurious correlations with the barrel sheets yet makes the data readily visible.

Sections 7: Special Sampling Requests. With certain modifications, the Panel endorsed a revised scheme for geochemical sampling resulting from a geochemistry workshop. This promises better science without using any more whole-round core in total. A proposal to defer more sampling to the repositories was not endorsed as it was covered by the discussions and recommendations of Section 3. The geochemistry proposal illustrates the kind of mechanism for revising and/or establishing sampling procedures which satisfies the needs pointed out by Dr. Biju-Duval.

Section 8: Panel Membership. The Panel has made detailed suggestions for Panel rotation and new members, based on the demonstrated needs for expertise in biostratigraphy and physical/chemical properties. The need for continuity in IHP links to various national data centers in JOIDES member countries was emphasized.

Section 9: IHP Meeting Schedule. The Panel feels that it is essential to have 2 meetings a year at this point in the program; otherwise too many problems go unreviewed. We propose a February, 1987 meeting at College Station and a September, 1987 meeting at LDGO with tentative agendas.

Section 10: Ancillary ODP Publications. IHP urges PCOM to ask for improved communication between the JOIDES Office and ODP/TAMU, especially regarding mailing lists of Panel members. Some Panel members are experiencing difficulty in receiving some

of the ODP publications.

Section 11: Recognition of long-term DSDP staff members. IHP strongly urges PCOM to recognize formally the outstanding services to the drilling program of Peter Woodbury, Lillian Musich, Jan Blakeslee and Trudy Wood, who have stayed with the DSDP Information Handling and Publications program to the very end and are indispensable to the successful completion of the DSDP data bases, Initial Reports and Index.

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The Information Handling Panel met at the Scripps Institution of Oceanography, La Jolla, California, on July 10-12, 1986. Panel members attending were M. T. Jones (IOS/U.K.), M. Latremouille (Bedford Institute of Oceanography, Canada), A. Loeblich, Jr. (UCLA), M. Loughridge (NGDC/NOAA), E. Moussa (IFREMER/France), J. Nowak (BGR/Germany), J. Saunders (Basel, ESF alternate), and D. Appleman (Smithsonian Institution), Chairman. Also attending were S. Gartner (PCOM liaison, TAMU), R. Merrill (Science Operator liaison, ODP, TAMU) and C. Broglia (Logging Operator liaison, ODP, LDGO). I. Gibson (Canada) and J. Hathaway (USGS/WHOI) were absent. L. Musich, P. Woodbury and Jan Blakeslee of DSDP attended parts of the meeting as guests. The Panel expressed its thanks also to Jerry Bode of the ODP West Coast Repository for his assistance in hosting the meeting.

1. DSDP Report

The first item on the agenda was the report by the Information Handling Group at DSDP on the progress toward completion of all DSDP data bases. Lillian Musich furnished a very detailed report (Attachment No. 1) which showed that 14 data bases have been completed and transferred to NGDC. A second group will be transferred in September, 1986, and the remainder in December, 1986 and January, 1987, completing the transfer by the April, 1987 termination date for the Project. By this time the completed data bases will also be transferred to ODP and to the non-U.S. JOIDES data centers which want them. The

penetrometer and natural gamma data bases are of doubtful quality and very patchy. By mutual agreement, what data exists will simply be xeroxed and sent to NGDC.

L. Musich pointed out that owing to a slow-down in printing, several volumes of the Initial Reports, totally complete and in camera-ready copy, are awaiting publication. The Data Group is using xeroxes held at DSDP, which carry the final pagination, to extract data from these volumes. The Group will be down to 3-4 people in September, forcing the principals to do their own key-entering unless some student help is forthcoming.

Peter Woodbury estimated that the complete set of DSDP data bases will fit on 10 tapes of 1600 bpi density (excluding high-volume data tapes such as underway data). No logging tapes are currently held at DSDP; all have been sen to NGDC. C. Broglia stated that the Logging Operator at LDGO would like to have a complete set of DSDP logging data. M. Loughridge agreed to copy whatever data they lack, especially the Gearhart-Owen tapes from Legs 60-78, and send them to LDGO. Analog logging charts will not be digitized but sent as is.

L. Musich exhibited the paleo listings produced by the Information Handling Group for the Micropaleo Reference Centers. Those for foraminifera were produced in draft form earlier this year, and listings for nannofossils, radiolaria and diatoms were furnished for this meeting. The listings are complete through Leg 57 for forams and to about Leg 60 for the other groups. This is as far as the DSDP IHG can take the work. The Panel agreed that completion of the Reference Center Listings for the

remaining Legs (approximately 60-84) must be accomplished, and strongly recommended that ODP do this. R. Merrill estimated that 2 man-months will be required, and that there will be a minimum delay of 1 year due to higher-priority tasks. The DSDP IHG will furnish a complete description of the work to be done and the appropriate software to P. Brown, Supervisor of Data Bases at ODP/TAMU. J. Saunders commended Musich for the determination of zones for each sample in the listings, thus greatly increasing their usefulness to users of the Reference Centers.

L. Musich also showed sample pages from the DSDP Pacific Site Summary--a compendium of Pacific DSDP sites with maps, summary data and graphic lithologies. This is ready to go to NGDC which will publish it as a monograph. This material was already given to L. Montadert, through E. Winterer, for a U.N. Atlas project being published by the USSR. Recently DSDP received a request for a similar Lithologic "Site Summary" for the Atlantic. However, due to the imminent termination of the Project the IHP agreed that it is out of the question to attempt such a time-consuming task now. The Panel recommends that at the most, copies of the tapes with the requisite data be sent to the USSR, leaving it to them to work up the charts and do the drafting as they see fit. D. Appleman will write to M. Peterson of DSDP to inform him of our recommendation.

P. Woodbury informed the Panel that there were 33 boxes of DSDP data from the UC Riverside X-Ray Diffraction project stored in the GSA Laguna Niguel Archives, consisting of strip charts, printouts and other raw data. The run 7-track data tapes are

still in the DSDP archives. The Panel does not believe that this material has any permanent scientific value; however, D. Appleman will consult with sedimentary mineralogists before making a final recommendation. The processed XRD data from this project is now available from NGDC.

DSDP also has 5 boxes of x-ray photographs of DSDP cores. IHP recommends that these be sent to ODP/TAMU for archiving along with other types of core photographs. R. Merrill agreed to take them.

Discussion of the ultimate fate of the microfilm of the DSDP prime data, consisting of shipboard data forms, charts, etc., resulted in the following IHP resolution: Resolved, that the diazo working copy of the 16mm microfilm of the DSDP prime data, now at the West Coast Repository, should remain at the WCR in fulfillment of the need to have a complete copy in each repository. Further, the new Gulf Coast Repository should be equipped with another microfilm copy of the DSDP prime data, which will be provided to the GCR by NGDC once they receive the silver master film. It was pointed out that the ozalid copy is good enough itself to make user copies for most requests.

M. Loughridge reported on the status of DSDP data bases at NGDC. He exhibited individual availability announcement fliers for the following: Site Summary, Age Profile, Carbon Carbonate, Vane Shear, X-Ray Mineralogy, Core Depth and Recover, Sediment Paleomagnetics, Sonic Velocity, Grain-Size, Digital Well Log, and Underway Geophysics. These will go out now to a mailing list of 3000-3500. All data types are maintained as separate (though

related) data bases. The point of contact at NGDC for all of these, except the underway data, is Carla Moore. A summary (Attachment 1) of the status of receipt of all DSDP data bases was furnished. The Site Summary File will also be available on an IBM PC-Compatible floppy disk. The Panel was enthusiastic about this format as being most useful to individual scientists, although the Paleo data base, for example, is still too large even for most PC hard drives.

Jan Blakeslee, head of the DSDP Publications Group, reported on the status of the Initial Reports and Index. Volumes 88, 91, 93, 94, and 95 remain in house. Of these, 88, 91, and 94 are close to completion--within weeks of shipment; 94 should go in August. Volume 95 is about 2/3 complete, through the initial stages. Volume 93 undergoes co-chief review at the beginning of August, and should be shipped in October or November. It will be 2 volumes, 63 chapters with about 1500 printed pages and will probably be the last volume to appear. Note that several volumes previously shipped are still awaiting publication (see above).

One recurrent problem with the Initial Reports has been quality control, especially of paleontological plates. Two recent volumes had to be completely reprinted, one after it had already been issued. The chief reason seems to be that the DSDP Editor is not allowed to see final proofs. This problem has (hopefully) been eliminated in the new ODP publications program, where ODP rather than GPO publishes the Proceedings.

The Panel concluded that publication of the Initial Reports was on schedule and should be completed satisfactorily by the

Project termination date. We urge that JOI and NSF expedite the timely publication of those volumes already shipped, as well as those forthcoming. The effect on participating scientists of further delays is detrimental to future participation in the program.

J. Blakeslee next provided a detailed and illuminating account of the current status and history of the Index to the DSDP Initial Reports. This is a truly monumental task--probably the largest of is kind ever undertaken--and few guidelines existed for strategy, procedures and software. In addition, the job had to be done in too short a time, with too little money. Blakeslee outlined the subcontracting procedure, which resulted in the choice of an experienced subcontractor. So far the data collection part of the work has been satisfactory. The design and production of the Index required a degree of sophistication and imagination which was too much for the contractor alone to handle. Therefore Jan Blakeslee, Peter Woodbury and Lillian Musich have spent a great deal of time developing the necessary strategy and software to accomplish the task. Blakeslee exhibited samples of the various types of editorial processes, including checking of out-of-context lists of individual keywords and phrases, rotation of hierarchical listings, and many other procedures designed to impose order on volumes produced by many different writers and editors over 15 years.

J. Nowak expressed concern that a more structured listing was not available at the outset of the program. She pointed out that such a method, presumably requiring adherence to

well-defined standards in nomenclature and usage, was commonly used in Germany. The Panel expressed the hope that the ODP publications program would bear the problems of indexing in mind from the beginning, and R. Merrill assured us that indeed ODP would profit by the publications experience gained during DSDP. One need mentioned by Blakeslee was for a good on-line geographical gazeteer; M. Loughridge will try to obtain one.

Blakeslee stated that the Index currently has over 400,000 entries and is complete through Leg 53, with Legs 54-96 well in hand. She fully expects the job to be completed by the DSDP termination date, April, 1987. Much of the criticism of early versions of the Index resulted from lack of awareness that these were essentially word lists with little resemblance to the final product. The Panel was largely convinced that the final Index will be as well and thoughtfully produced as is possible, given the time and financial constraints, and that it will be an extremely useful product and a unique achievement in its own right.

The final Index will appear in two forms. The first is a 2-volume book version. The second is a machine-readable computer file. At project termination this will still be essentially a data file, but P. Woodbury has made a preliminary investigation and found affordable programs which might serve to search and retrieve from the Index File. Potentially this file would be capable of supporting logical searches of far greater complexity than the structure of the book index. Woodbury will furnish R. Merrill at ODP with copies of his notes on this work as well as

the computer tapes before the project ends, since it will clearly not be possible to implement the computer-based index with suitable software by that time. Total size of file and software is estimated at 50 megabytes.

The Panel commended J. Blakeslee, P. Woodbury and L. Musich for the large amount of excellent high-level consultative work they are putting into the Index, without which the project would have little chance of success. We agree that the Data Group should be supported in their attempts to devote less time to filling individual data requests so that they can work full-time, if necessary, on completion of the data bases and Index. We also urge that they be given sufficient support to hire student key-entry people, so that they will not have to take time away from their other tasks during the critical period this fall to do their own data entry.

2. Micropaleo Reference Centers

Following discussion of the Reference Center sample listings (see above) S. Gartner raised a question as to whether establishment of the Micropaleo Reference Center should continue to be supported by the Panel, in view of what he perceived as the extreme slowness and lack of tangible results since the proposal was first made 11 years ago. In response, J. Saunders quoted from his report to the meeting (Attachment 2) showing that 1472 foraminiferal samples from legs 1-39, split 8 ways, and 1433 nannofossil preparations and the same number of lithologic smear slides, covering legs 1-23, are ready for distribution. The Panel recognized the slowness with which the work had proceeded

until now, but also recognized that little support had been given to Saunders and Riedel to carry out the task. It was concluded that more effective direction would help, including a schedule with deadlines for completion of particular stages in the work. Therefore, the Panel resolved that 4 items should be accomplished and demonstrated by the December PCOM meeting:

(a) Saunders will prepare and ODP will produce a brochure describing the Reference Centers, their availability and use to the scientific community.

(b) Saunders will provide detailed lists of all samples selected.

(c) Saunders will send out the samples currently available for distribution (forams and nannos) and will request written confirmation from the other repositories stating that they have received them.

(d) M. Loughridge or ODP will produce microfiche of the reference sample listings of each fossil group.

The problem of preparation of the radiolaria and diatoms remains. D. Appleman on behalf of the Panel will write to Riedel and offer our assistance in obtaining financial support so that the radiolarian preparations can be done at Scripps. We will ask Riedel to define the task in terms of time, people and money and then to try for USSAC or NSF funding. Reference Centers currently planned are Basel, Scripps, TAMU, Lamont, Japan (location needs to be established), New Zealand (Lower Hutt), and the USSR (presumably Moscow), with one spare set of samples held in reserve. Responses from the first set of sample deliveries

should help establish the seriousness of each of these centers. A full report will be made to the December PCOM meeting.

3. ODP Sampling Policy

The consideration of ODP sampling policy for cores, both on shipboard and post-cruise, was a principal reason for holding the IHP meeting at this time. D. Appleman read to the Panel a letter sent by B. Biju-Duval of France to the EXCOM Chairman expressing concern over sampling guidelines and procedures, scientific review of sampling requests by the JOIDES advisory structure, long-term strategy for sampling, and logging data distribution. PCOM, through Tony Mayer, asked IHP to consider these issues. The ODP Science Services Manager, Russ Merrill, had previously asked IHP to look into sampling procedures since many situations had developed requiring clarification of present policy.

R. Merrill distributed copies of the ODP "Shipboard Scientist's Handbook" containing present sampling policy and guidelines, and he reviewed present procedures, making the following points.

(1) There are 3 categories of sampling: (a) shipboard sampling for the scientific party and approved shorebased scientists; (b) post-cruise sampling during the 12-month moratorium, for the same scientists; (c) post-cruise sampling after the 12-month moratorium, in response to requests from the scientific community at large. Categories (a) and (b) are supposed to be strictly in support of research intended to appear in Parts A and B of the Proceedings.

(2) Sample requests for categories (a) and (b) must be on the

Sample Request Form for Cruise Participants, to be submitted at least 2 months pre-cruise (hopefully). All forms go to the co-chief scientists and the ODP Staff Scientist for the leg who decide on conflicts, etc., and rejections (for categories (a) and (b)) and draw up the Cruise Sampling Plan.

(3) The Cruise Sampling Plan is supposed to be sent to the Curator at ODP 2 weeks before sailing. The Curator reviews the C.S.P. to ensure compliance with ODP policies. At this point, the Plan becomes final. The C.S.P. focusses the co-chiefs' attention on sampling and ensures that they will look over all requests seriously.

(4) Merrill emphasized that the Cruise Sampling Plan is simply a guide; it is <u>not</u> "cast in concrete." Once the ship sails, changes needed in the C.S.P. are the direct responsibility of the co-chiefs, who should consult with the Staff Scientist and on-board curatorial representative.

(5) The present policy establishes the following limits for a cruise of normal length: 20,000 soft sediment samples and 3000 hard-rock samples (100 hard-rock samples per individual scientist) to be taken on board ship. Three are no individual limits on soft sediment samples.

R. Merrill then described some of the problems encountered to date with the present policy. Among these the following are particularly troublesome.

(1) The perception seems to exist on the part of the co-chiefs that they are somehow subordinate to the curatorial

representative in sampling policy, and that the Cruise Sampling Plan is being rigidly enforced. This is not true (see item (4) above), and Merrill emphasized that if the co-chiefs see a problem developing on board ship with the curatorial representative they should immediately contact him. He mentioned the case of Leg 109, where such a problem did develop and he remained unaware of it until the leg was over. Personnel actions have been taken in that particular case, but the damage could have been prevented by timely communication.

(2) The sampling policy is often violated in that scientists take far more samples than they can study or use for preparation of Parts A and B of the ODP Proceedings. Leg 108 was used to illustrate the point.

(3) Paleo-oceanographic cruises pose a particular problem because they are so sample-intensive, especially for stable isotope studies.

(4) A major problem for the Curator is deferral of inordinate numbers of sample requests to post-cruise sampling at the repositories during the 12-month moratorium. Leg 108 was mentioned as an example--they deferred about 17,000 samples to the East Coast Repository, far exceeding the capabilities and budget of this facility and producing an unsupportable drain on the curatorial budget. See the ODP Curatorial Report for further details (Attachment 3).

(5) There is a great need to emphasize to the co-chiefs when they are selected that the Cruise Sampling Plan must be

carefully constructed, to accomplish the best science without overtaxing personnel and budgets.

The Panel engaged in an extensive discussion of the problems and procedures mentioned above. They focussed on these interrelated points: (a) the degradation of the shipboard scientific experience when excessive sampling was required; (b) the cost in additional personnel and support required for shipboard sampling beyond the guidelines; (c) the need to be realistic about how many samples could actually be studied for the ODP reports, and not to sample "defensively"; (d) the danger of overloading the shore repositories with post-cruise requests far beyond their capacity; (e) the fact that certain legs, mainly paleoceanographic cruises, will require larger numbers of samples to accomplish their goals. After thorough discussion the IHP proposes the following sampling policy guidelines to be incorporated in the Shipboard Scientist's Handbook and as ODP policy:

"Core sampling facilities on board the JOIDES Resolution and in the three core repositories are modern and efficient; however, experience has shown that injudicious design of the shipboard sampling strategy can lead to overburdening the shipboard scientific staff, who man the shipboard sampling stations, and to the deferment of inordinate numbers of samples to the core repositories on shore, whose staffs cannot cope with the additional workload. Overloading the shipboard scientists with sampling degrades the quality of the scientific experience for the individual and reduces the scientific return on the

community's investment in the cruise. Overloading the repository results in unacceptable delays for sample requestors. Neither result is desirable, so co-chiefs are urged to formulate the sampling strategy for their cruise very carefully.

"The upper limit of the sampling capacity of the Resolution's core lab is 20,000 soft sediment samples per 60-day cruise. This assumes that one core sampling station is manned by at least two scientists, 24 hours per day, whenever cores are being split and sampled. A modest number of samples may be deferred to the shore repository (with the Curator's permission), in order to allow critical zones to be sampled after preliminary results are in hand. The 20,000-sample limit on shipboard samples is an upper limit, and should not be considered a desirable target. Taking fewer samples will free time for constructive thought and planning. Remember that the scientific party is primarily responsible for taking all samples. The marine technicians will be occupied with routine shipboard analytical programs and with other assigned tasks, and will generally be unavailable for sampling. Therefore, the scientific party should be very selective in formulating its sampling strategy, because the burden of carrying it out will fall upon he scientists themselves.

"It is recognized that, occasionally, cruises will require more than 20,000 shipboard samples--this need has arisen principally in connection with paleoceanographic legs requiring numerous stable isotope samples. The 20,000-sample limit may be raised to 35,000, provided the second core-lab sampling station

is activated. Operation of this second sampling station will require assigning a science berth to a second curatorial technician, and assigning an additional complement of two scientists, 24 hours per day, to sampling; therefore, it will reduce the number of berths available to active (non-sampling) scientists by five.

"Note that the normal 20,000-sample upper limit may not be exceeded unless berths are allocated for these additional sampling personnel. Further, the absolute maximum number of soft-sediment samples which may be taken during the cruise is 20,000 (35,000 if berths are assigned to additional sampling personnel). It is inappropriate to request or to take samples at frequent, routine intervals, only a few of which will be analyzed. It is expected that all samples taken will be analyzed, and that the results will be reported in the Proceedings. All additional sampling should be deferred until after the 12-month moratorium has expired."

The Panel notes that the limits on hard rock sampling remain as before: 3000 per cruise total with 100 per individual scientist per cruise. Also, requests for post-cruise changes in sampling policy should go to the IHP or to PCOM as at present; the curator should not be asked to make exceptions.

In spite of all of the above, the IHP and the curator emphasized that the word must be spread that sampling is not a completely rigid business, even after the Cruise Sampling Plan is approved, and that the co-chiefs have the responsibility for changes during the cruise. The hope is that the act of preparing

the C.S.P. and consulting the ODP Sampling Policy will prevent injudicious sampling which might otherwise occur.

4. ODP Publications

R. Merrill submitted the Report of the ODP Publications Group (Attachment 4) and summarized it for the Panel. The financial problems associated with start-up of the publications program in the past have been largely solved, and publication of Parts A and B of the Proceedings of the ODP is proceeding in accordance with past IHP and PCOM recommendations and decisions. E. Moussat expressed the strong desire of the French ODP scientific community for more rapid publication of Part B--2 years post-cruise rather than 3 years as presently planned. In answer, R. Merrill outlined the present publications schedule, as follows:

Months Post-Cruise	What Happens	Manuscript Status
0	Ship docks	
5-7	Post-cruise meeting (5 days; College Station	Part A Mss. finished; galley proofs of barrel sheets at meeting
12-14	6 Month after meeting	Part A published
18-24	Peer review of Part B Mss. by co-chiefs, in-house editors and at least 2 outside reviewers; author revisions	
25-32	Copy editing, galley proofs, art, typesetting, corrections	
32	Co-chief review of Part B at College Station (5 days); no rewrites, but correction of errors and rejections possible	

33-34.5	Page makeup, folios, final error corrections	
34.5-36	Printing, binding and distribution	Part B published

Merrill noted that there was very little compressibility in the system except for the research time, and any shortening there would almost certainly be resisted by many co-chiefs and shipboard scientists. Part B takes 4.5 months to typeset. The IHP notes that their original recommendations on publications format for ODP, made in June, 1984, dealt with the question of more rapid publication of scientific papers by including a Journal as part of the Proceedings; this however was not acceptable to PCOM.

The question was also raised of inclusion of site survey data not obtained by ODP in Part A. This is now up to the co-chiefs. Underway data and site surveys must be peer-reviewed because they may include interpretations. This aspect has led to conflict of priority between drilling and site-survey conclusions. The IHP felt that at least the data should be included in Part A if possible.

Part B may include technical reports and notes--"data dumps"--which need not be peer reviewed; e.g. interstitial water analyses. They will be identified somehow as non-reviewed material and separated from the peer-reviewed articles. Logging may appear in Part B in specialty chapters, but more likely will be in Part A after the barrel sheets (see below under Logging).

R. Merrill summarized the cost studies and RFP's which led to the present decision to publish Parts A and B of the Proceedings of the ODP in-house. The projected cost-per-page is gratifyingly low compared to industry standards. S. Gartner stated that PCOM considers publications to be a "non-problem" now, as the money is available and Parts A and B are guaranteed as agreed previously. However, several non-U.S. IHP members expressed great concern on behalf of ODP participants in their countries that no written statement of commitment to the publications program has been issued after the long period of uncertainty. The IHP urges PCOM to issue such a statement, to reassure JOIDES participants and the scientific community of JOIDES commitment to the most visible product of the program, the Proceedings.

5. ODP Data Base Group and Computer Services Group

R. Merrill distributed the Reports of these two groups to the Panel and summarized progress and problems. The Data Base Group (Attachment 5) is staffing-up following resignation of the Supervisor; a new Supervisor has been chosen (P. Brown). E. Moussat said that the French scientists would like higher priority assigned to incorporation of the DSDP databases into the ODP database; however, the entire database effort has been slowed because software development has had to await completion of higher-priority programming for shipboard applications. IHP felt that the database program was proceeding more or less on schedule, but urged that it not be allowed to languish as a poor stepchild as so often happened in the past at DSDP, when other

applications were continually granted higher priorities.

The Computer Services Group Report (Attachment 6) focussed the Panel's attention on what we consider to be a critical lack of programming staff. The tasks outlined for the group are formidable and critical to the program's success. Peter Woodbury of DSDP noted that to any competent computer scientist, the size of the software staff at ODP was clearly much too small for the size and complexity of the hardware being managed. Merrill pointed out that as some of the most pressing shipboard applications had been completed, the programming staff would now give shorebased applications higher priority for a while.

IHP was puzzled by some of the recommendations of the JOI review panel, especially since they recommended designing more custom software while criticizing the size of the computer effort, and did not see why the same systems were used on ship and on shore. The Panel does not agree with these points and is strongly in favor of using "off-the-shelf" software where possible.

E. Moussat inquired about the use of "expert systems" by the ODP Computer Group. R. Merrill stated that the Computer Group has decided against this at the present, since they consider performance of these "Artificial Intelligence" systems to be still a compromise, and just not good enough at this stage.

The IHP <u>strongly recommends</u> strengthening the ODP Computer Services Group by hiring more programmers, to make the Group more closely match the magnitude of the tasks they must do. Otherwise we fear that work of great importance to the scientific community

and to the success of the program will never get done. Database retrieval programs, and design of software to facilitate production of publications, are just two examples.

6. ODP Logging Operator Report

Cristina Broglia, Panel liaison from he Logging Operator at LDGO, reported on the status of ODP logging data. In answer to the questions asked by Dr. Biju-Duval in his letter (see above) she said that all logging data is immediately available on the ship both in digital and analog form. She showed the Panel a request form (Attachment 7) used both on ship and on shore. Copies of the analog logs are distributed to the LDGO logging representative, the independent logging scientist, the 2 co-chiefs, the ODP (TAMU) staff representative, and the LDGO archives (along with the originals). She described briefly the 2 suites of logging tools: the Schlumberger tools and the LDGO specialty tools. Ozalids can be made for further distribution of the analog logs from the transparent copies held at Lamont. Composite processed logs can be produced on the ship and distributed to any interested shipboard scientist during the cruise.

Tapes created on the ship are in LIS format. These are original Field Tapes. From these, Field Edit tapes are produced by stripping off some waveforms and splitting the original field data. Field Edit Tapes can be read, copied, edited and otherwise used. They are more complete than the DSDP tapes, and contain all data necessary for analysis. Copies of tapes are available directly from the ship if no reformatting is required, otherwise

3-4 weeks post-cruise from Lamont. The one-year embargo rule holds for logging data as for all other samples and data.

So far only one post-embargo request has been received for Leg 101. There have been 14 shipboard party requests for analog data and 9 for tapes, as well as some for DSDP data. The data are free to the shipboard participants. Others must supply their own tapes. The Request Form shows the formats available. C. Broglia asked that non-U.S. panel members provide lists for data distribution to foreign countries. E. Moussat said that France will restrict its requirements to what is specifically requested by French scientists and universities. C. Broglia furnished a list (Attachment 7) of the 236 tapes presently in he LDGO ODP database. Many of these will be merged to drastically reduce their number before distribution or exchange. She will send ODP tapes to NGDC in exchange for DSDP tapes. LDGO has also received about 20 tapes from the USGS in a one-time exchange. C. Broglia has checked all the listed tapes for readability--many have been returned to Schlumberger for fixing.

R. Merrill pointed out that LDGO was running logging mini workshops to educate members of panels in the nature of the logging operation. Many IHP members expressed a desire to attend one of these.

C. Broglia and R. Merrill explained the final agreed-upon arrangement for publication of the routine logging data in Part A of the Proceedings. The data will be printed following the barrel sheets at a scale of 1:500, cut to run from page to page, perhaps with some folded in pockets. The data will be

unprocessed, and will have core numbers alongside for easy reference to the barrel sheets. Because of severe space constraints, R. Merrill proposes that the barrel sheets carry only an on/off flag to indicate whether logging exists for the interval. After some discussion and suggestions for improvement, the Panel tentatively approved this arrangement, with the request that ODP scientists in other JOIDES member countries be consulted by their IHP representative and any feedback go to R. Merrill as soon as possible. The Panel also urged that simple headings be devised for the non-expert, explaining the type of data and the scale. The samples presented by C. Broglia met with general approval. Particularly dramatic logs may be interpreted by the logging scientists and presented at a much smaller scale; perhaps in Part B articles.

A final item related to logging was injected by consideration of JOI RFP JR1-86 calling for a synthesis for the physical properties and logging data of the DSDP, brought to our attention by P. Woodbury. Various panel members expressed unhappiness with the RFP and thought it should have been passed through IHP for review. C. Broglia said that the LDGO Logging Operator thinks the proposal is unrealistic and not feasible in its present form. M. Loughridge expressed great dissatisfaction with the lack of specificity as to the distribution of the final product. In general, the IHP considered the RFP mechanism to be a poor way to obtain high-quality analysis, as it lacked sufficient opportunities for peer review. Obviously the panel members and guests most concerned and most knowlegeable about the

data bases involved had considerable reservations about the RFP. M. Loughridge was asked to contact Tom Pyle at JOI to express this dissatisfaction and to get more information.

7. Special Sample Requests

The Panel considered several special sample requests which violated existing policies and procedures. The first of these was from Rob Kidd, ODP, on behalf of the first annual co-chiefs review meeting. The 10 co-chief scientists, recognizing that extensive sampling during a cruise for later shorebased studies creates many problems, proposed that such samples be restricted to those needed by members of the shipboard scientific party. They propose to defer all other sampling requests for shorebased cruise participants to the repositories for post-cruise filling.

During extensive discussion, he Panel felt that this situation had been exhaustively covered by the general discussion of sampling (Section 3 of this report) and that IHP must stick by the policies and procedures outlined there. In particular, the number of deferred samples cannot be very great without gravely impacting the operation of the repositories, as has shown by Leg 108. The problems onboard ship noted by the co-chiefs will be ameliorated by the general limitations on shipboard sampling, and the co-chiefs can set the balance within these limits both in the Cruise Sampling Plan and during the cruise. Therefore, the Kidd recommendation was not supported by IHP.

A second proposal was forwarded by K.-C. Emeis, on behalf of a geochemistry workshop held at ODP in October, 1985 (Attachment 8). It represents a revision of the current sampling procedures

and policies for hydrocarbon monitoring, interstitial water, and organic geochemistry on board the Resolution. Basically, the geochemists want more whole-round sampling in the topmost 100-150m of sediment and somewhat less below, while combining certain sampling efforts. IHP was generally enthusiastic about the proposal, and commended the geochemical community for having gotten together to plan a careful, well-thought-out scheme for producing the best science while minimizing core disruption. This seems to be just the sort of planning Dr. Biju-Duval was looking for. However, E. Moussat proposed several caveats which the Panel approved: (a) Sampling must be done in consultation with the shipboard biostratigraphers and with their approval so that critical zones will not be lost; (b) If duplicate cores are taken the first should go to biostratigraphy; (c) The squeezed cores from the geochemical sampling should be retained, as they may be useful for some paleo studies. With these reservations he IHP endorsed the proposed and asked that ODP change the sampling policy and the Handbook to reflect this change.

Finally, a request was received from J. L. Applegate of FSU for an exemption to the rule requiring a fee of $75.00 per plate for photographic plates in excess of five per article. He wants 29 plates for his Leg 103 article on calcareous nannofossils; the work also is for his Masters degree. After thorough discussion the Panel concluded that a clear, unambiguous rule was essential and that any exceptions would open the floodgates. Experience with the Initial Reports of DSDP had shown the necessity for this limit. The paleontologists on the Panel felt that they could

live with the rule as it stands. Therefore, the Panel reasserts the 5-plate limit on free plates without exceptions and does not support Applegate's request. We also noted that he can apply to USSAC or NSF for the plate charges, or can publish a more detailed study in a paleontological journal.

8. Panel Membership

The question of IHP membership was discussed at length in the light of the PCOM directives on panel rotation, even though these policies have not been as strictly applied to service panels. A major factor in the discussion is the need for new expertise on the Panel. The IHP has increasingly had to deal with problems of sampling policies and procedures, and with requests to modify or violate these policies for all kinds of specialized sampling requests. We need active marine scientists who have hands-on experience with the samples, and who can represent the broad long-term scientific goals for the ODP and JOIDES in dealing with sampling problems and all that they entail. In particular we require expertise in biostratigraphy, and in physical/chemical properties.

In considering the U.S. members of the Panel: J. Hathaway has effectively already left the Panel as he is on multi-year assignment to Indonesia and cannot attend meetings. D. Appleman (chairman) must rotate off (after an overlap period) due to the press of other duties and the fact that he has been on the Panel longest. We ask for 2 new Panel members to replace Hathaway (immediately) and Appleman (after a short (?) overlap). After much discussion, our suggestions are: (a) For expertise in

biostratigraphy and replacing Appleman, Ted Moore (Exxon), first choice, or Bill Riedel (SIO); (b) For expertise in physical/chemical properties, replacing Hathaway, Keith Kvenvolden (USGS), first choice, or R. Ingersoll (UCLA). Note that a new chairman must be chosen soon, probably from one of the new appointees. We have taken into account the new PCOM rules against voting membership on more than one panel, and against NSF employees being panel members, which eliminated many desirable possibilities. We feel that the people indicated above would fill the current needs of the Panel admirably.

Regarding the non-U.S. JOIDES representatives on IHP, rotation has already taken place with the replacement of M. Melguen by E. Moussat (France) and J. Saunders by J. Hertogen (ESF-Belgium) although we have not been officially notified of the latter. Many of the non-U.S. member represent important links to national data centers and these must be maintained, for example J. Nowak (Germany) and M. Jones (U.K.). The Panel also urges that Panel members be chosen who will make a committment to attend Panel meetings.

9. IHP Meeting Schedule

The Panel feels that as the program moves into full operations it is essential to meet twice a year rather than once as in the past. Important procedures, policies and requests are going unreviewed because of the long time between Panel meetings. After thorough discussion the Panel established the following dates, places and tentative agendas for the next 2 IHP meetings, pending PCOM approval:

(a) February 18-20, 1987 at College Station, Texas. The agenda will include shipboard and repository sampling, applications programming-status and priorities, database development-progress and priorities, adequacy of Science Services staffing, review of Part A of the Proceedings, Panel membership, and special sampling and data requests as received.
(b) September 9-11, 1987, at LDGO, New York. The agenda will include the status of publications, a review of logging data, and if possible a logging mini-workshop for Panel members, as well as a report from the ODP Site Survey Data Bank at LDGO focussing on availability and post cruise use of their data.

If Panel members have any problems with this schedule they are urged to contact the Chairman as soon as possible.

10. Ancillary ODP Publications

Several Panel members expressed concern that they might not be getting all of the various items published or distributed by ODP/TAMU, since they were not sure what was issued on a regular basis. R. Merrill provided the following outline:

(a) Leg prospectus - issued about 2 months before sailing, but can be much later.
(b) Preliminary report - prepared aboard ship and issued about 30 days port-cruise.
(c) Hole summaries (privileged information) - issued within 30 days (only to those authorized).
(d) Shipboard site summaries (telexes from the ship) - should be about one per week during the cruise, reformatted and mailed from ODP.
(e) Geotimes and Nature Articles - usually sent within 60 days of docking; publication time varies (by subscription).
(f) Parts A and B of Proceedings - about 1 year and 3 years post-cruise, eventually.
(g) Miscellaneous Technical Notes and Technical Reports (reviewed) - issued irregularly as produced.

The Panel urges PCOM to improve communication between the JOIDES Office and the Science and Logging Operators regarding lists for distribution of documents issued by ODP.

11. Recognition of Long-term DSDP Staff Members

The Information Handling Panel wishes to recognize with

gratitude and appreciation the devoted services to DSDP, JOIDES and the scientific community of Lillian Musich, Peter Woodbury, Jan Blakeslee and Trudy Wood of DSDP Science Services. The deep committment of these individuals to their work is best shown by their decision to stay with the Program until its very end. Without them, successful completion of the Program's goals for databases and publications would have been well-nigh impossible. We commend them for their constant creative involvement, high standards and just plain hard work over many years, often under the most difficult circumstances. We wish them the best of luck in their future positions.

the Panel strongly urges PCOM to recognize formally the outstanding services of Lillian Musich, Peter Woodbury, Jan Blakeslee and Trudy Wood to the drilling Program with a suitable commendation.

Attachment No. 1 IHP Report

AVAILABLE DSDP DATA

Data file: legs available	Data source	Description	Comments
1. Lithologic and stratigraphic data			
Fossils: 1-85	*Initial Reports*	Data for 26 fossil groups. Code names, abundance and preservation data for all Tertiary fossils found thus far in DSDP material. The fossil dictionary comprises more than 12,000 fossil names and codes.	Does not include Mesozoic fossils. No data for Leg 83.
Smear Slide: 1-96	Shipboard data	Information about the nature and abundance of sediment components.	No data for Leg 83 (hard rock cores only).
Thin Sections: 4-83	Shipboard Data *Initial Reports*	Petrographic descriptions of igneous and metamorphic rocks. Includes information on mineralogy, texture, alteration, vesicles, etc.	Legs 4-36 and 43 are available. No data for Legs 1-3, 5, 8, 9, 15, 20-21, 24, 27, 40-41, 42B, 44, 47-48, 50, 56, 71-72, 75-76, 78, 80, 95, 96.
Visual Core Descriptions: 1-96	Shipboard data	Created from shipboard descriptions of the core sections. Information about core color, sedimentary structures, disturbance, etc.	
Visual Core Descriptions - igneous rocks: 4-94	Shipboard data	Igneous and metamorphic rock lithology, texture, structure, mineralogy, alteration, etc.	No data for Legs 40, 42B, 44, 47-48, 50, 56, 95, 96. Legs 22-94 available in digital form.
SCREEN: 1-96	Processed data	Computer generated lithologic classifications. Basic composition data, average density, and age of layer.	
Part 2. Physical properties and quantitative analytic core data			
***Carbon-carbonate: 1-96**	Shore Laboratory Shipboard, carbonate bomb data	Percent by weight of the total carbon, organic carbon and carbon carbonate content of a sample. Bomb data has carbonate only.	No data for Legs 46, 83, 88, 91, 92.
***Grain Size: 1-79**	Shore laboratory	Sand-silt-clay content of sample.	No data collected for Leg 16, 64 and 65.
GRAPE (gamma ray attenuation porosity evaluator): 1-96	Shipboard data	Continuous core density measurements.	No data for Leg 46.
Hard-rock major element analyses: 13-82	Shore-based and shipboard analyses	Major-element chemical analyses of igneous, metamorphic and some sedimentary rocks composed of volcanic material.	No data for Legs 20, 21, 31, 40, 42B, 44, 47, 48, 50, 56, 71. Legs 83-94 not yet encoded.
Hard-rock minor element analyses: 13-82	Shore-based and shipboard analyses	Minor-element chemical analyses of igneous, metamorphic and some sedimentary rocks composed of volcanic material.	No data for Legs 20, 21, 27, 35, 40, 42B, 44, 47, 48, 50, 56, 57, 66, 67, 71. Legs 83-94 not yet encoded.
Hard-rock paleomagnetics: 14-77	Shore-based and shipboard	Paleomagnetic and rock magnetic measurements of igneous and metamorphic rocks and a few sedimentary rocks composed of volcanic material.	No data for Legs 1-13, 17, 18, 20-22, 24, 30, 31, 35, 36, 39, 40, 47, 48, 50, 56, 57, 67, 68, 74. Legs 74-96 not yet encoded.
Intersitial Water Chemistry: 1-86	Shore-based and shipboard analyses	Quantitative ion and/or pH, salinity, alkalinity analyses of interstitial water and surface sea water samples.	No data for Legs 46, 83. Legs 87-96 not yet digitized.

Part 2. Physical properties and quantitative analytic core data. (Cont.)

*Long-core spinner magnetometer sediment paleomagnetics: 43, 68, 70-7[illegible] 90	Shipboard analyses	Paleomagnetic measurements: declination and intensity of magnetization. Data from hydraulic piston cores only.	Should be used with reservation since the cores were later discovered to be rust-contaminated and disturbed. Quality of the data for each core clarified by documentation.
Discrete sediment sample magnetics: 1-96	Shipboard laboratory	Paleomagnetic measurements: declination, inclination, and intensity of magnetization. NRM measurements and AFD measurements when available.	Rotary cores: 1-76, 78 encoded. 79-96 not yet encoded. HPC cores: 71-75 encoded.
Alternating field demagnetization: 4-96	Shipboard laboratory	Paleomagnetic measurements of sediments on which alternating field demagnetization is carried out.	Rotary cores: 4-73 encoded. HPC cores: 72-79 encoded.
*Sonic velocity: 2-95	Shipboard analyses	Hamilton frame and 'ear muff' methods.	No data for Legs 1, 13, 96.
*Vane Shear: 31-94	Shipboard data	Sediment shear strength measurements using Wykeham Farrance 2350 and Torvane instruments.	No data for Legs 32-37, 39-40, 45-46, 49, 52-56, 59-60, 62, 65-67, 70, 77, 79, 81-84, 86, 88-89, 92.
Analytic water content, porosity, and density: 1-96	Shipboard laboratory	Measurements by syringe method from known volumes of sediment.	No data for Leg 41.
*Well Logs: 6-96	Shipboard data	Analog charts and magnetic tapes produced by Gearhart-Owen and Schlumberger.	Schlumberger LIS tapes: 48, 50, 51, 57, 80-84, 87, 89, 95, 96. Gearhart-Owen tapes: 60, 61, 63-65, 67, 68, 70, 71, 74-76, 78. Analog data only: 6, 8, 46, 66, 69.
*X[illegible] mineralogy: 1-37	Shore laboratory	X-ray diffraction	Data for Legs after 37 not available in digital form.

Part 3. Underway geophysics

*Bathymetry: 7-96	Shipboard data	Analog record of water-depth profile.	Available as digital data and 35mm continuous microfilm. No data for Legs 10-12, 57-60.
*Magnetics: 7-96	Shipboard data	Analog record produced on the Varian magnetometer in gammas. Digitized at 5-min. intervals on an OSCAR X-Y digitizer.	No data for Legs 10, 11.
*Navigation: 3-96	Shipboard data	Satellite fixes and course and speed changes that have been run through a navigation smoothing program, edited on the basis of reasonable ship and drift velocities and later merged with the depth and magnetic data.	
*Seismic: 1-96	Shipboard data	Sub-bottom profiles recorded on Edo Western Graphic Model 550. Digital data for Legs 89-96 in SEG-Y tape format.	Both Bolt and Kronllite filters available on board. Fast and slow sweeps available on microfilm and photographs.

Part 4. Special reference files

*Site Summary: 1-96	Initial Core Descriptions	Information on general hole characteristics (i.e., location, water depth, sediment nature, basement nature, etc.).	
Guide to Core Material: 1-8	*Initial Reports* Prime data files	Summary data for each core: depth of core, general paleontology, sediment type and structures, carbonate, grain size, x-ray, etc.	
*AGEPROFILE: 1-96	*Initial Reports* Hole summaries	Definition of age layers downhole.	
*COREDEPTH: 1-96	Shipboard summaries	Depth of each core. Allows determination of precise depth (in m) of a particular sample.	

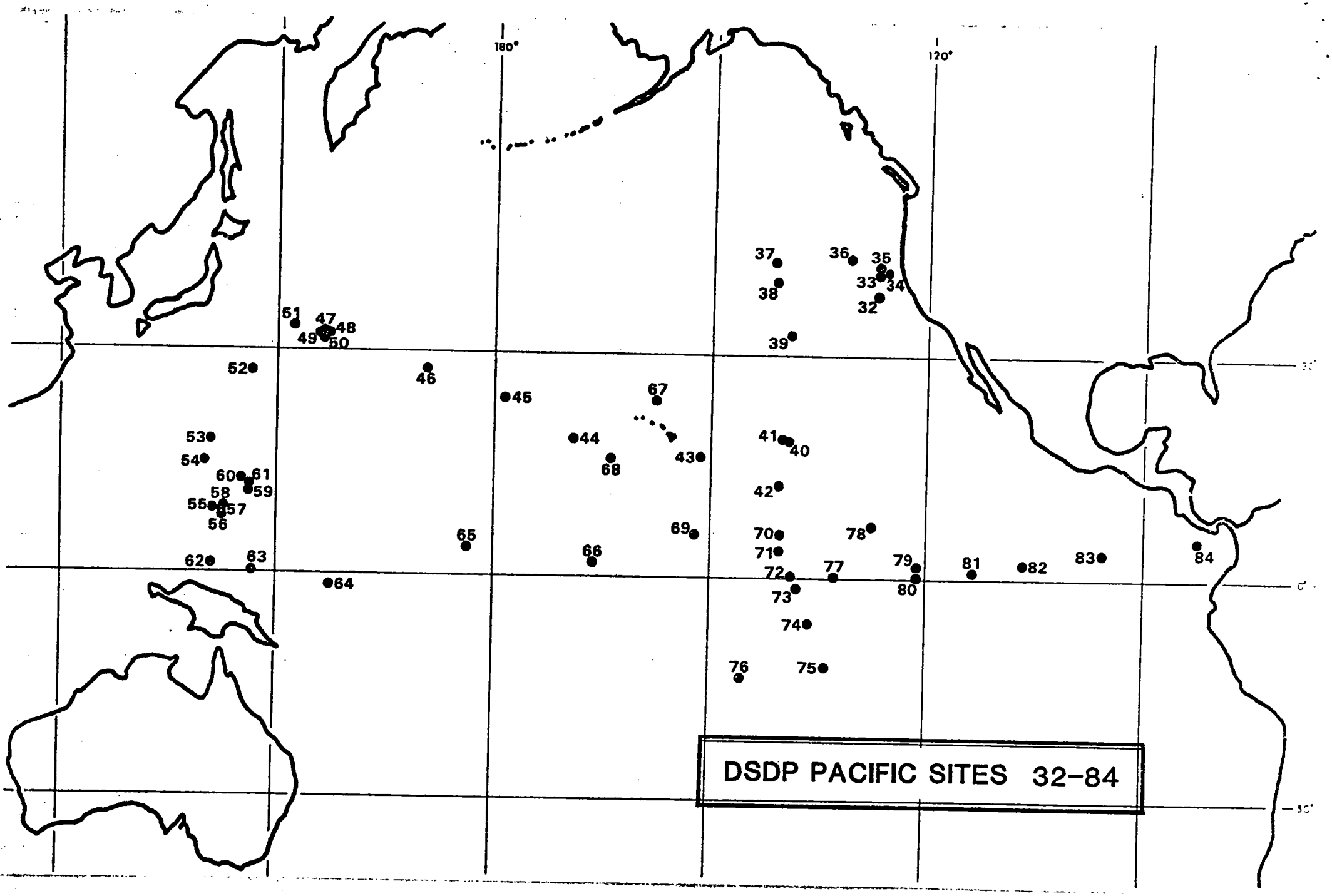
Part 5. Aids to research

DATAWINDOW	An on-line search and retrieval program to access many DSDP files; also used for data base maintenance. An account can be arranged at the University of California computer center to allow remote access to data files compatible with DATAWINDOW.
MUDPAK	A plotting program: handles multiple parameter data (e.g., plots of well logs, plots of physical properties).
DASI	A file of DSDP-affiliated scientists and institutions. Can be cross-referenced and is searchable.
KEYWORD INDEX	A computer searchable bibliography of DSDP related papers and studies in progress.
SAMPLE RECORDS	Inventory of all shipboard samples taken.
DSDP Site Map	DSDP site positions on a world map of ocean topography.

*** - indicates that the database is complete and transferred to NGDC.**

Attachment No. 1 (Continued)

TABLE OF CONTENTS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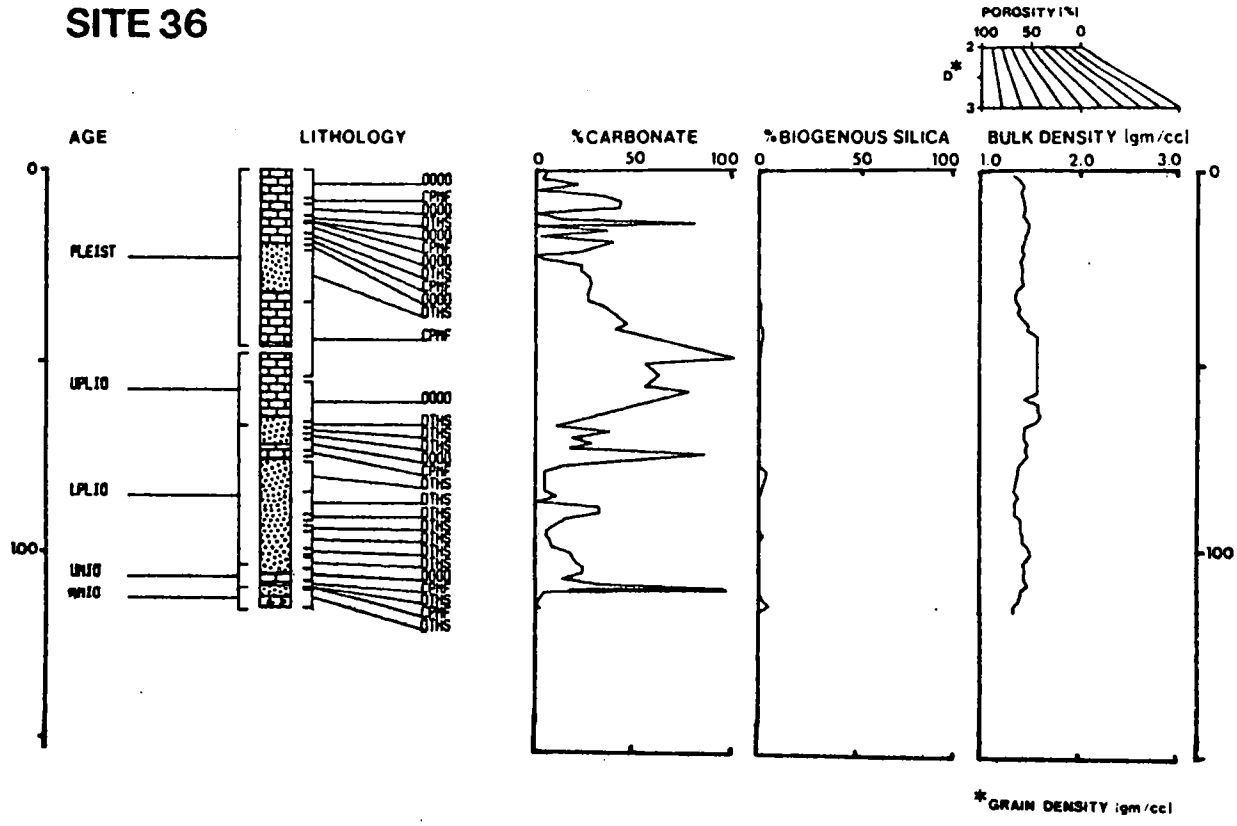
DSDP PACIFIC SITES 32-84

Summary Data for DSDP Pacific Sites

Leg	Site	Latitude	Longitude	Sea	Physiographic Feature	Water Depth(m)	Total Penetration(m)	Cores Recovered	Meters Recovered	Depth of Basement(m)	Oldest Sediment Depth(m)	Age
5	32	37 7.6N	127 33.4W		PLAIN	4758	215.0	14	86.0	212.0	213.0	LOWER OLIGOCENE
5	33	39 28.5N	127 29.8W		HILL	4284	295.0	15	112.0		294.0	MIDDLE MIOCENE
5	34	39 28.2N	127 16.5W		PLAIN	4322	384.0	18	106.0	383.0	383.0	UPPER OLIGOCENE
5	35	40 40.4N	127 28.5W		VALLEY	3273	390.0	17	95.0		330.0	PLEISTOCENE
5	35A	40 50.4N	127 31.2W		VALLEY	3273		none				
5	36	40 59.1N	130 6.6W		RIDGE	3273	116.0	14	112.0	116.0	115.0	MIDDLE MIOCENE
5	37	40 58.7N	140 43.1W		HILL	4682	31.0	5	30.0		30.0	
5	38	38 42.1N	140 21.3W		HILL	5137	48.0	6	48.0		48.0	LOWER EOCENE
5	39	32 48.3N	139 34.3W		HILL	4929	17.0	2	17.0	17.0	17.0	LOWER EOCENE
5	40	19 47.6N	139 54.1W		BASIN	5183	156.0	19	129.0			
5	41	19 51.3N	140 2.9W		HILL	5339	34.0	5	26.0	34.0	34.0	MIDDLE EOCENE
5	42	13 50.6N	140 11.3W		HILL	4848	100.0	11	92.0		100.0	MIDDLE EOCENE
5	42A	13 50.6N	140 11.3W		HILL	4848	113.0	3	7.0		109.0	MIDDLE EOCENE
5	43	17 6.6N	151 22.5W		VALLEY	5405	9.0	2	8.0			
6	44	19 18.5N	169 0.9W		RIDGE	1478	76.0	5	28.0		76.0	MIDDLE EOCENE
6	45	24 15.9N	178 30.5W		PLAIN	5508	18.0	none				
6	45A	24 15.9N	178 30.5W		PLAIN	5508	105.0	4	3.1		95.0	
6	46	27 53.0N	171 26.3E		RIDGE	5769	9.1	1	9.1		9.0	CRETACEOUS
6	47	32 26.9N	157 42.7E		PLATU	2689	9.1	1	9.1		9.0	PLEISTOCENE
6	47A	32 26.9N	157 42.7E		PLATU	2689	112.0	2	2.4		99.0	LOWER PALEOCENE
6	47B	32 26.9N	157 42.7E		PLATU	2689	129.0	14	103.0		129.0	UPPER CRETACEOUS
6	48	32 24.5N	158 1.3E		PLATU	2619	84.0	1				
6	48A	32 24.5N	158 1.3E		PLATU	2619	49.0	1	0.6		49.0	UPPER MIOCENE
6	48B	32 24.5N	158 1.3E		PLATU	2619	72.0	3	21.0		70.0	UPPER CRETACEOUS

SITE 36



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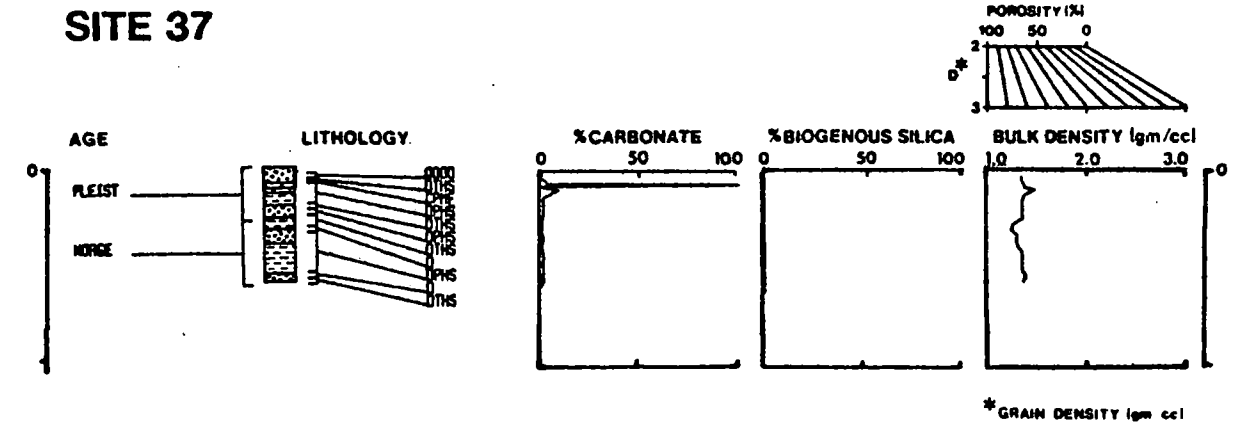


Attachment No. 1 (continued)

DIGITAL GEOLOGY DATA SETS RECEIVED BY NGDC

Legs Covered in Data Set

File Name	1 1234567890	2 1234567890	3 1234567890	4 1234567890	5 1234567890	6 1234567890	7 1234567890	8 1234567890	9 1234567890	123456
Site Summary	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxx
Age Profile	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxx
Coredepths	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxx
Vane Shear				x x	xxxx xx x	x xx	x xx xx	xxxxxx x x	x x x	x xx
XRD	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxx						
Carbon/Carbonate									xx xxxx xx	xx
Paleomagnetism					x		x x	xx x		
Sonic Velocity	xxxxxxxxx	xx xxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxx
Grain Size	xxxxxxxxxx	xxxxx xxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxx xxxxx	xxxxxxxxx		
G.R.A.P.E.										
Hard Rock Major										
Hard Rock Minor										
Hard Rock Paleomagnetics										
Water Content										
Discrete Magnet.										

DIGITAL GEOLOGY DATA SETS RECEIVED BY NGDC
(page 2)

Legs Covered in Data Set

File Name	1 1234567890	2 1234567890	3 1234567890	4 1234567890	5 1234567890	6 1234567890	7 1234567890	8 1234567890	9 1234567890	123456
AF Demagnet.										
Paleontology										
Screen										
Smear Slide										
Thin Sections										
Visual Descrip.										

DIGITAL WELL LOGS RECEIVED BY NGDC

Legs Covered in Data Set

File Name	1 1234567890	2 1234567890	3 1234567890	4 1234567890	5 1234567890	6 1234567890	7 1234567890	8 1234567890	9 1234567890	123456
First Shipment 5/2/85					x x	B x x		x	xxxx x x	xx
Second Shipment 6/12/86						x	x xxxxxxxx	x xxx x		

UNDERWAY GEOPHYSICAL DATA RECEIVED BY NDGC

Legs Covered in Data Base

Digital

	1 1234567890	2 1234567890	3 1234567890	4 1234567890	5 1234567890	6 1234567890	7 1234567890	8 1234567890	9 1234567890	123456
Bathymetry	xxxx	xxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxx
Magnetics	xxx	xxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxx
Gravity										
Single Channel Seismics									xx	xxxxxx

Analog

	1 1234567890	2 1234567890	3 1234567890	4 1234567890	5 1234567890	6 1234567890	7 1234567890	8 1234567890	9 1234567890	123456
Bathymetry	xxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxx
Magnetics	xxxxxxx	xxxxxxxxxx	xxx xx xxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxx
Seismics	xxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxx

Volumes per Leg

Leg Number	1 1234567890	2 1234567890	3 1234567890	4 1234567890	5 1234567890	6 1234567890	7 1234567890	8 1234567890	9 1234567890	123456
Volumes	212222*222	22*2222222	2121223123	2232121222	3*2233*442	***21**111	111*111121	*221*21*2*	211211ØØ*	ØØØØØØ

Volumes with more than one part are noted with an asterisk (*).

7*	Part 1 - 2 copies	Part 2 - 2 copies
13*	Part 1 - 1 copy	Part 2 - 1 copy
42*	Part 1 - 3 copies	Part 2 - 2 copies
47*	Part 1 - 3 copies	Part 2 - 4 copies
51*	Part 1 - 3 copies	Part 2 - 3 copies
52*	Part 1 - 3 copies	Part 2 - 2 copies
53*	Part 1 - 3 copies	Part 2 - 3 copies
56*	Part 1 - 1 copy	Part 2 - 1 copy
57*	Part 1 - 1 copy	Part 2 - 1 copy
64*	Part 1 - 1 copy	Part 2 - 1 copy
71*	Part 1 - 1 copy	Part 2 - 1 copy
75*	Part 1 - 1 copy	Part 2 - 1 copy
78*	Part A - 1 copy	Part B - 1 copy
80*	Part 1 - 1 copy	Part 2 - 2 copies
90*	Part 1 - 1 copy	Part 2 - 2 copies

Additional Volumes
Supplement to Volumes 38, 39, 40, and 41 - 3 copies

Attachment No. 2 | IHP Report

NATURHISTORISCHES MUSEUM BASEL MUSEUM D'HISTOIRE NATURELLE BALE (SUISSE)

CH-4051 Basel,
Augustinergasse 2
Telephon 061 25 82 82

STATUS OF BASEL REFERENCE CENTRE COLLECTION : JULY 1986

1. Samples have been selected for all fossil groups from Leg 1 through Leg 84. This work has been done in conjunction with Bill Riedel.

2. Foraminiferal samples have been washed in Basel from Leg 1 through Leg 39 except for legs 29 and 35 (not found) and legs 31 to 34.

3. Samples from Leg 40 to Leg 60 have been received in Basel but still await washing. Samples from Leg 60 to Leg 84 are arriving in Basel.

4. Of the foraminiferal samples from Leg 1 through Leg 39, 1472 have been split 8 ways and 10,304 in 7 sets are now ready for despatch to other repositories.

5. A computer-generated list of foraminiferal samples from Leg 1 through Leg 56 has been received from Lillian Musich. This includes basic information for each sample including age and zone.

6. 1033 nannofossil preparations (and the same number of lithologic smear slides) have been received in Basel from Tom Walsh at Scripps. These cover legs 1, 7, 8, 9, 16-23. A letter received 7/8/86 from Tom advises of the despatch of 400 preparations for legs 12 through 15.

7. Preparations for Radiolaria and Diatoms have not yet been received and await decisions on processing policy for the Reference Centres as a whole.

J.B. Saunders

ODP Curatorial Report to IHP
October 1985 - May 1986

IHP Report

Attachment No. 3

IHP Report

The routine procedures for reviewing and processing subsequent sample requests have not changed in the past year. The Curator's office continues to query investigators to submit their reprints and remind them to return their residues at the completion of their study. Investigators who "show up" at the Repositories without first processing their requests through the Curator's office are encouraged to select their samples, marking rocks and flagging sediments. The actual materials remain in the Repository until the request is reviewed and approved.

Sample requests which exceed the guidelines of the JOIDES Sample Distribution Policy are reviewed in light of the historical and present-day popularity of the materials, the present condition of the working half, and the duplication of the material in other cores, as well as the investigator's fulfillment of past obligations to ODP/DSDP. Unusual sample requests are sent to peer review by the Curator.

The West Coast Repository (WCR) averaged 1,257 samples/month and the East Coast Repository (ECR) averaged 1,288 samples/month. This is an increase of about 273 samples/month/Repository above last year's overall average. The East Coast Repository has experienced an average monthly backlog (requests older than 8 weeks) of 8 requests for 1,331 samples/month during February-March 1986. Records show that as of May 1986 there remain only two requests (680 samples total) in the backlog.

The WCR distributed 717 samples to the Paleo Reference Centers for nannofossil/lithologic, foraminifera and diatom preparation. The radiolarian preparation laboratory has not yet been selected. The 245 samples for radiolarian preparation are being stored at the WCR. There is an outstanding request for 1,043 samples at the ECR. Efforts to complete the Paleo Reference Center request is being done on a time available basis.

Shipboard parties have co-operated with ODP recommendations to limit their shipboard sampling. Investigators usually schedule their deferred sampling with travel to meetings or the post-cruise meeting, frequently impacting the ECR with many visitors in a relatively short period of time. The Repositories try to accommodate all visitors. On rare occasions they have even opened on week-ends and holidays (at the discretion of the resident Superintendent); however, visitors sometimes still must reschedule their appointments. The ECR averaged 11 visitors/month and the WCR averaged 5 visitors/month.

Shorebased Sample Requests

The shipboard party of Leg 108 deferred about 17,000 samples to the ECR. Three ODP marine technicians have been recruited to assist in receiving and sampling the cores. In order to expedite matters we plan to conduct the sampling in two overlapping work shifts. Housing and local transportation for the ODP marine technicians are being squeezed from the already limited curatorial budget. If the scientific community expects to continue to defer samples in these large numbers, the curatorial budget must be increased to provide this service.

Residues

Residues are recycled whenever possible. Grain-size analyses, thin section billets, physical properties and paleomagnetic residues have been redistributed from the Repositories to fulfill subsequent sample requests. Before recycling samples, investigators are informed of the availability of sample residues and asked if the residues can be used in lieu of removing material from the core. In some instances, the residues were the only remaining material, but more often the residues are used to supplement large volumes or simply to conserve materials in the core.

In an effort to conserve materials, samples taken for routine non-destructive shipboard analyses (i.e. physical properties and paleomagnetics) are recycled through the various shipboard laboratories. In addition, investigators are encouraged to accept recycled samples to fulfill parts of their shipboard request.

Maintenance and Curation Program continued

The WCR has hired six students for the summer to continue the maintenance and curation program. The students will resume the photographing of archive halves (Legs 22-64), curate archive halves (Legs 64-92), inventory and store residues, and organize the frozen sample collection. The ECR has hired two students for the summer to assist in organizing and inventorying returned residues and the ODP thin section and smear slide reference collections. They are returning thin section billets to the cores and will assist in receiving and racking over 6,000 sections of core collected during ODP Legs 106, 108 and 109 (scheduled to arrive mid-July 1986).

Curation

In the past, core sections at the ECR were taken outdoors for closeup core photography. At the WCR lab doors were left open for air circulation and cores were taken outdoors due to space limitations during core curation programs and sampling overloads. An ODP staff scientist recently pointed out that this exposure could affect the palynology studies conducted on the materials. In response, after consulting with Dr. Linda Heusser (an active palynology worker), the Repositories are purchasing equipment to

provide indoor close up photographic capabilities. A cost analysis to air-condition and filter the West Coast Repository air is in preparation.

A geriatric core study was organized to understand what is happening to ODP/DSDP cores stored under the existing conditions. Three dedicated cores of convenience will be requested from future ODP legs. The materials will represent a variety of environments and lithologies. A mudline, 10m and 100m core will be requested in order to separate the effects of burial diagenesis and corrosion which may cause loss of solution susceptible species, from any effects of Repository storage. The study will monitor and sample the cores at established time intervals. Samples will be washed or treated immediately, effectively freezing residual effects (if any) for that point in time. The study includes several of the ODP staff scientists and is open to anyone in the community who is interested. A historical study will be conducted using DSDP materials which have good historical records. Material from the same interval (stored in the Repositories) will be sampled and processed using the same procedures.

Software Development

With the advice and assistance of the ODP CSG, the design and development of the ODP version of the keyword search index was begun in June 1986. It is anticipated that the ODP keyword index to sample requests (investigators file) and reprints (published papers file) will be operational by Spring 1987. The ODP keyword search index will be capable of searching both DSDP and ODP request and reprint index files. The DSDP reprint database will be up-to-date when ODP receives it. All sample requests to ODP (about 680 requests to date) must be coded and added to the new ODP request database.

Listed below are several new software programs which were developed and implemented by Chris Mato with the assistance of non-CSG computer programers; however, these programs may be found insufficient and hence may be short lived.

A new sample request database containing pertinent request data and the status of their obligations was developed and implemented. The program is presently being tested. This database provides a central listing of all sample requests, fulfillment of investigator obligations, automated ticklers for residues and reprints, and will provide input into the keyword search index. It will be a source of new addresses and ODP connections information for ODASI. It is intended to expedite report writing and to provide accurate request information for on-going curatorial representatives to use for their master sampling programs. It will be in searchable format organized to easily produce reports and graphic plots.

Chris Mato developed and implemented software during Leg 108 to speed-up access to real-time sampling inventories. Programs to upload floppy diskettes, allowing preliminary edits and report writing on the VAX were implemented. Investigators are now provided with preliminary sample inventories within a few days after the samples are removed from the core. The curatorial representative on the ship can upload the floppy diskettes as frequently as desired to monitor the number of samples issued to each investigator.

Preliminary SAM data from ODP Legs 101 through 108 have been uploaded to the VAX and are now in searchable database structures. There are some problems with the Leg 107 data which are being resolved, this data should be available soon.

It is expected that maintenance of the sampling inventories, samples request and reprint index databases will continue to be the responsibility of curation and repositories. At present,

keypunching of curation-related data is accomplished by using available personnel with free time. In the future it is anticipated that a part-time dedicated keypunch person will be required.

Gulf Coast Repository

Approval to hire a GCR superintendent was finally received in April 1986. The position was advertised "in-house" and included applicants from ODP and TAMU. A senior level curatorial scientist from one of the remote ODP Repository's applied and was offered the position, but the offer was declined. Mrs. Gail P. Clement was selected and hired for the position. Gail has a MS in Geology majoring in geochemistry. She was formerly an ODP chemistry marine technician responsible for maintaining and operating the Resolution chemistry lab. On shore she assisted in inventorying and cataloging the ODP "special collections" (IWs and OGs). Her background includes satellite imagery, assisting in preparation of scientific reports, petrographic and microprobe analysis of meteorites, in addition she was a teaching assistant of introductory and advance geology laboratory courses.

Most of the major equipment purchases to start-up the GCR have been made. A few items are still out to bid and a few are still in the quotation phase. A student has been hired to assist in receiving, cross-checking invoices with purchase orders and testing of equipment. This student will primarily assist with GCR start-up related tasks. He is an engineering technology student who would be valuable in assisting in fabricating customized carts and catchement containers for our water cooled equipment, and assisting in setting up core racks and shelving.

With the rapid development of software and new "in-house" policies and procedures, it has been difficult to train the remote curatorial staff for sea-going duties. In order to

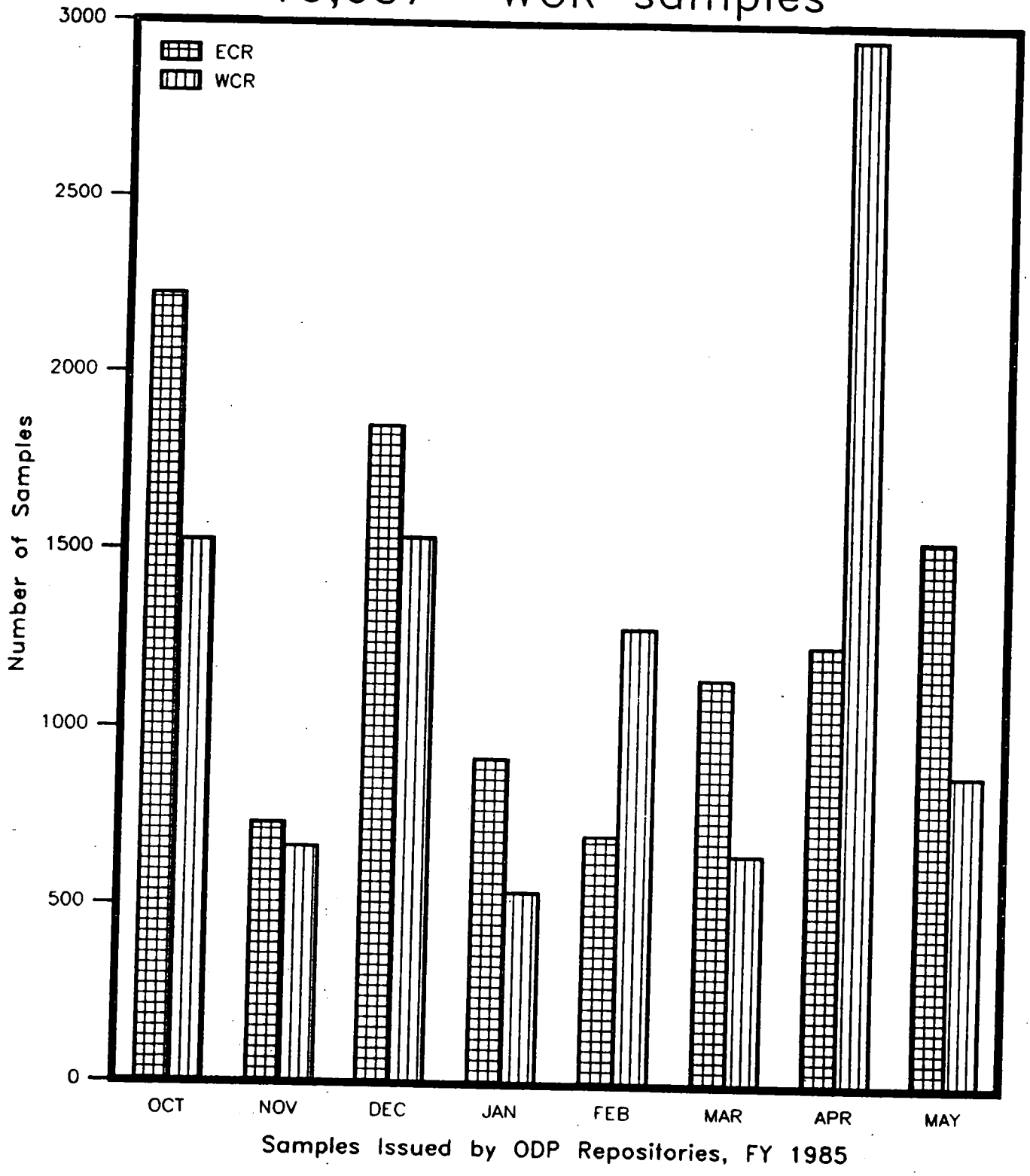
alleviate this situation, future staffing of the GCR will include one rotating seagoing curatorial technician. The remaining members of the curatorial staff will provide the other half of the sea-going rotation. ODP marine technicians will be requested to assist in shorebased curatorial tasks. Since the GCR will have a small and limited core collection for the first year (1987) the effects of a limited staff should not be adverse.

In order to staff the GCR, one position will be moved from the WCR to the GCR, this will be the sea-going position. The WCR will hire a part-time student to wet sponges in archive halves, rack core sections in preparation for sampling, inventory incoming returned residues and assist in maintaining a clean sampling environment. The GCR is requesting a student worker to assist in the outfitting and equipping of the Repository.

20,417 Total (8 months)

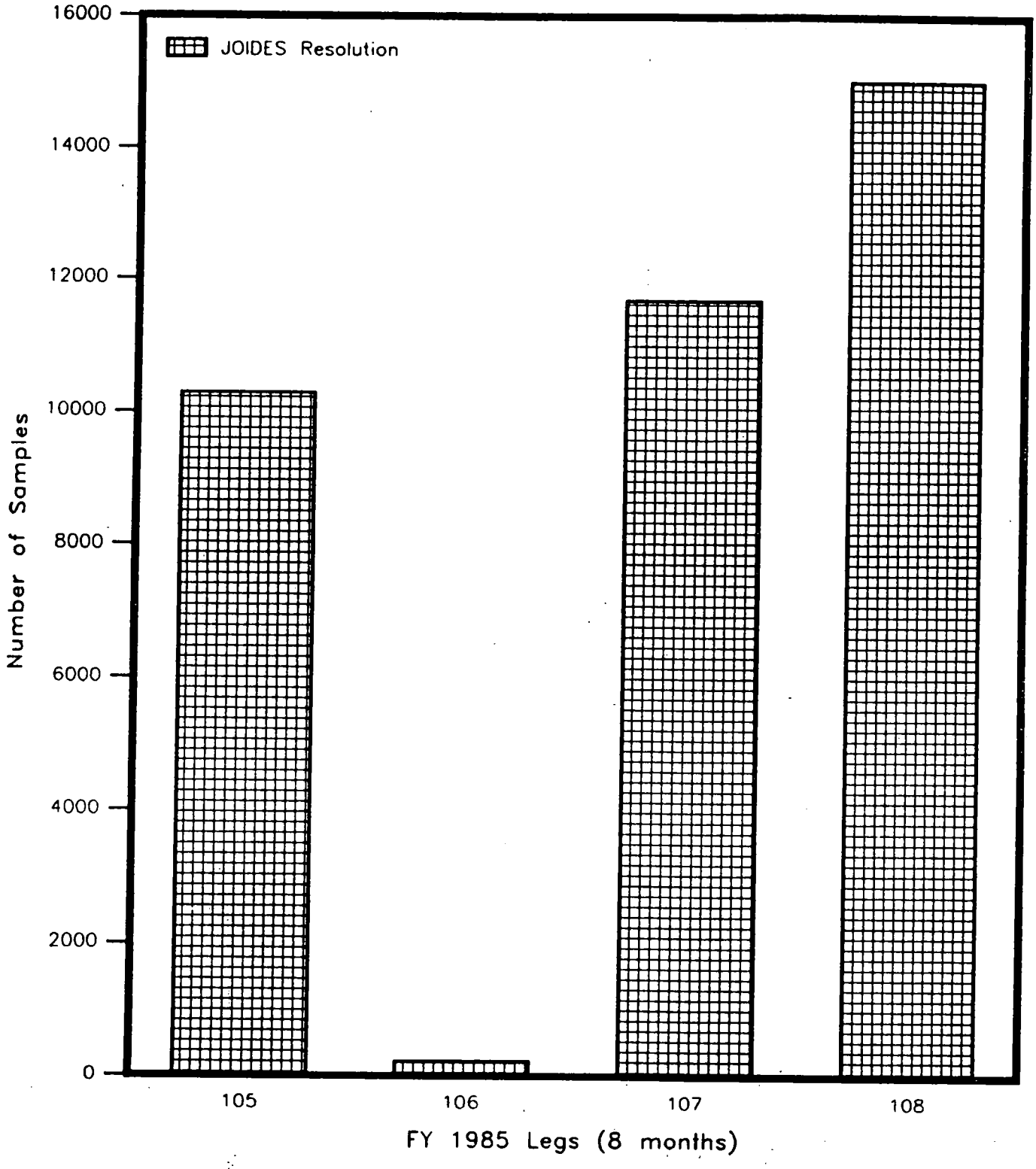
10,360 ECR samples

10,057 WCR samples



Samples Issued by ODP Repositories, FY 1985

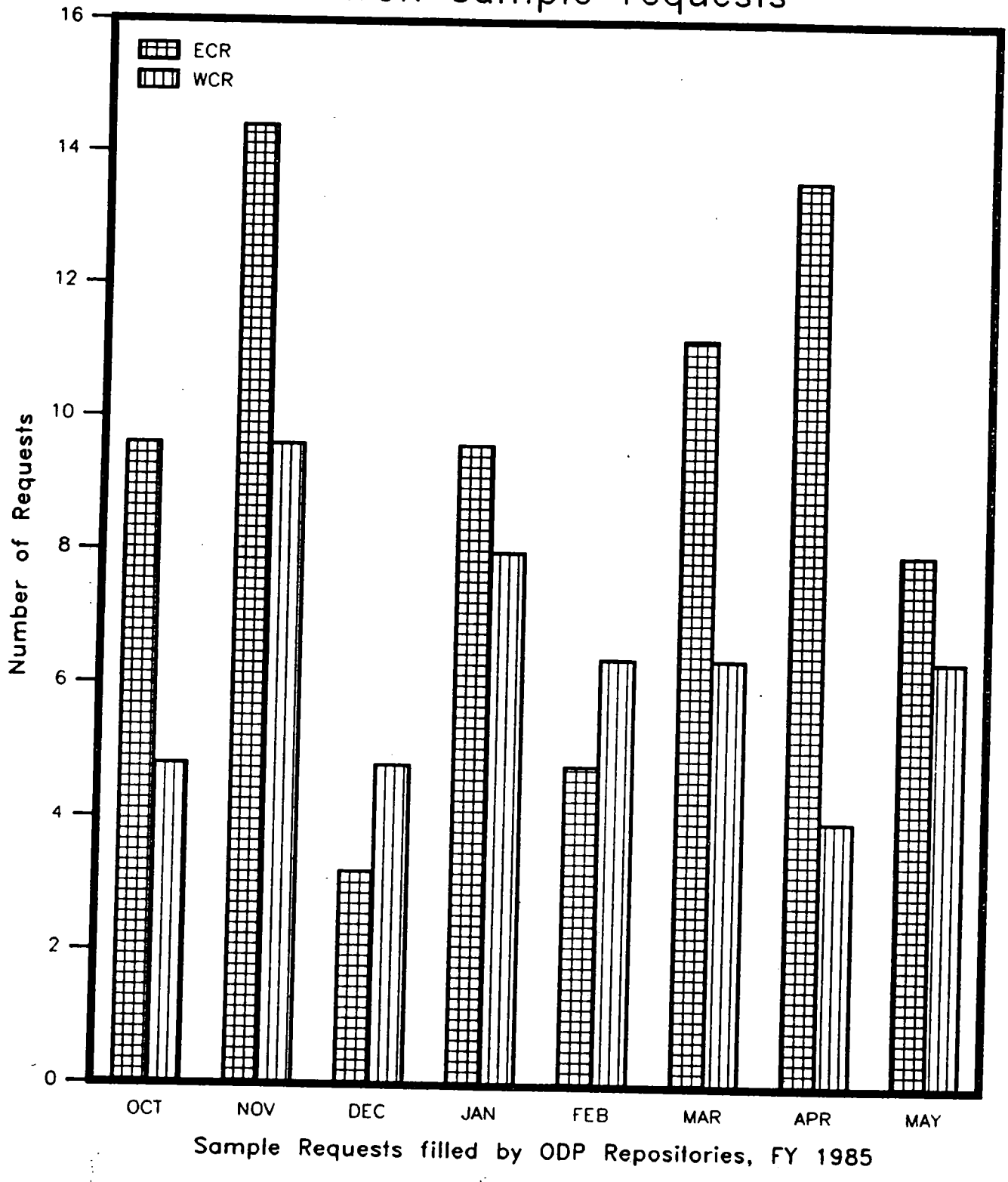
48,875 Samples Distributed Onboard JOIDES Resolution



156 requests from Repositories Total (8 months)

93 ECR sample requests

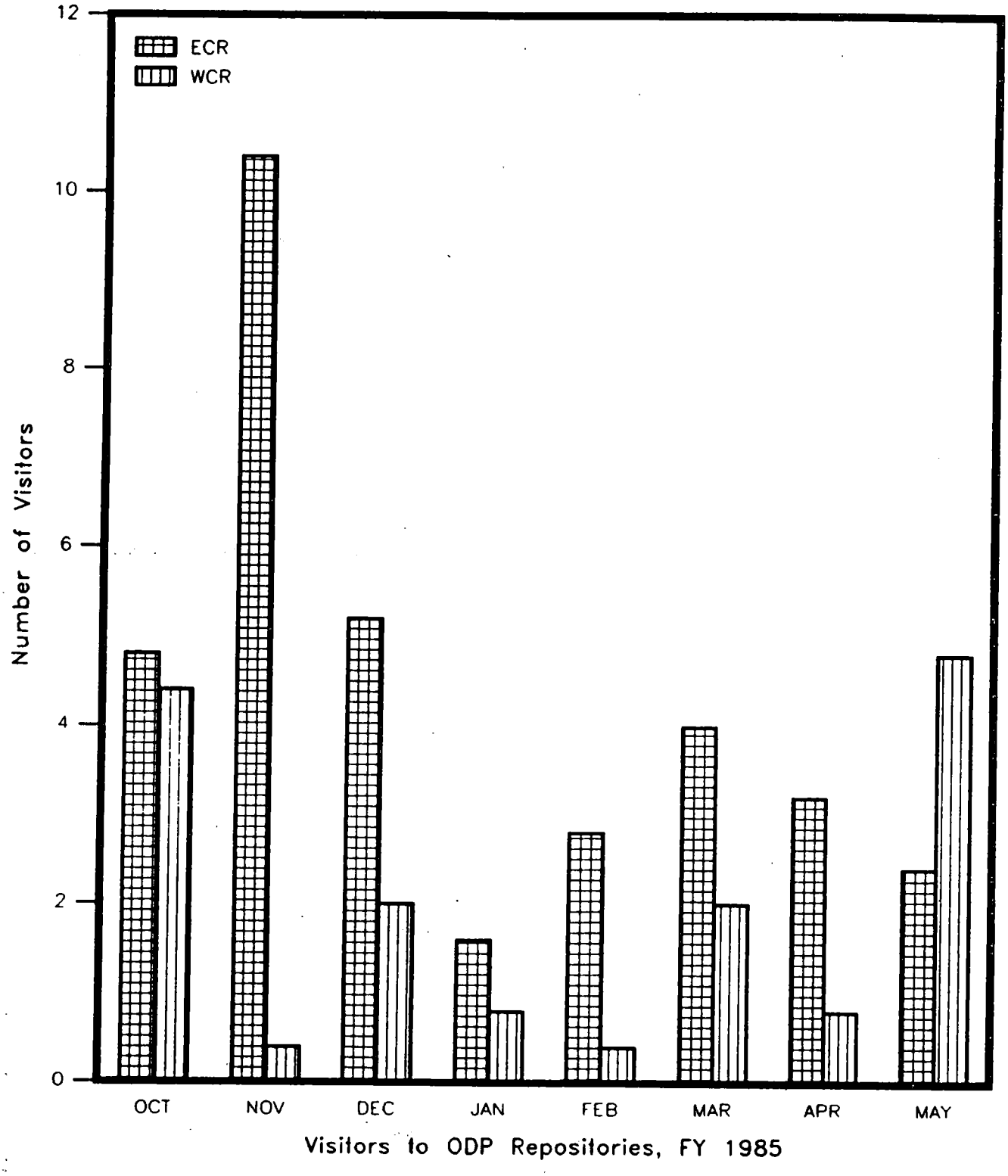
63 WCR sample requests



Sample Requests filled by ODP Repositories, FY 1985

86 ECR visitors

39 WCR visitors



Visitors to ODP Repositories, FY 1985

Attachment No. 4 IHP Report

REPORT OF PUBLICATIONS GROUP FOR MEETING OF INFORMATION HANDLING PANEL, JULY 1986

(Prepared by William D. Rose 3 July 1986)

Introduction

Compared to this time last year, news from the Publications Group is just about all good. Our funding problems have been eased so that we have been able to add staff and workstations and other necessary equipment to go forward with our plans to publish the Proceedings of the Ocean Drilling Program and auxiliary reports, as directed by the Information Handling Panel and approved by the Planning Committee.

Typesetting and Printing Subcontracts

In December the Publications Group sent requests for proposals (RFP's) to some 20 prospective bidders for production of the Proceedings of the Ocean Drilling Program. The RFP's were for the two main phases of the program: (1) typesetting and page makeup and (2) printing, binding, and distribution. Five firms interested in submitting proposals sent representatives to a bidders' conference, which was held at ODP headquarters in

College Station in January. Seven firms submitted proposals; six were for typesetting and page makeup, and two were for printing, binding, and distribution.

Following receipt of the proposals, an evaluation team--consisting of Russ Merrill, Curator and Manager of Science Services, Bill Rose, Supervisor of Publications, and Lynn Holst, Manager of Contracts--visited the plants and related facilities of the responsive bidders.

After the bidders' best and final offers were received at ODP headquarters, a subcontract was executed with Consultants & Designers, Inc., of Anaheim, California, for typesetting and page makeup. Another subcontract currently is being negotiated with Edwards Brothers of Ann Arbor, Michigan, for printing, binding, and distribution. Both firms are thoroughly experienced in their respective phases of the subcontract provisions, and both are accustomed to high production standards. (Consultants & Designers has been the Deep Sea Drilling Project's typesetting and page-makeup subcontractor for the past several years.)

Publishers' RFP for Part B of Proceedings

In a related matter, the Planning Committee last fall requested ODP to assess possible economic benefits of publishing the Part B portion of the Proceedings independent of our own

Publications Group. Accordingly, in January we sent an additional RFP to 15 leading science publishers for this purpose. Two of these publishers are geoscience societies, five are university presses, and eight are commercial publishers. The attached memorandum, dated 22 April 1986, gives the details of this activity.

Although none of these publishers submitted proposals, the good news is that production of Part B books, on the basis of a comparable DSDP volume, Vol. 90, Part 2, would cost about $63 a copy, including delivery to the reader. Thus, at 8.1 cents a page, this Part B volume would be slightly less than half the average cost of 16.7 cents a journal page, undercutting all of the commercial and many of the society publications surveyed, 18 in all (see attached memorandum).

The Planning Committee recently gave us permission to proceed with producing and publishing both Part A and Part B of the ODP Proceedings in house. We are now going forward with our original plans to produce both volumes in accordance with the guidelines and other criteria already approved by the Information Handling Panel and the Planning Committee.

Publishing Schedules

Currently we are running about 4 to 6 months behind schedule

in processing Part A books because of our earlier funding problems. The Leg 101, Part A, volume will be published sometime this fall, together with the Leg 102, Part A, volume. Part A for Leg 103 is expected to be in print by the end of this calendar year. For calendar year 1987 we are adopting an accelerated schedule so that by year-end we will be getting Part A books out by an average of 13 months post-cruise. Our schedule calls for distributing Part B books by an average of 37 months post-cruise, with the first release estimated for May 1988. The attached chart illustrates our projected schedule for processing and publishing Part A and Part B Proceedings volumes.

We purchased a heavy-duty Kodak copier (model 225AF) in March to process our informal publications, such as Prospectuses, Hole Summaries, and Preliminary Reports. To date, we have issued 11 Prospectuses, 8 Hole Summaries, 8 Preliminary Reports, and 4 Technical Notes. In November we published a 28-page booklet, based on the DSDP Stylus and also on many of your recommendations, entitled "Instructions for Contributors to the Proceedings of the Ocean Drilling Program."

As indicated previously, we now have two Part A manuscripts in press, those for Legs 101 and 102. With the assistance of the Computer Services Group, we prepared magnetic tapes of the diskettes that contained the authors' and our electronic keystrokes for these manuscripts and transmitted them to the typesetter. The typesetter then added the necessary commands for

font style and size, pica measure, spacing, etc. The tables for both these volumes were set conventionally from hard copy. We expect momentarily to meet with the typesetter's representative to resolve some electronic compatibility problems. When we get these problems solved, we can then formulate our own abbreviated typesetting commands and thereby reduce our typesetting costs even more.

We are now processing Part A manuscripts for Legs 103 and 104 on-line. Other manuscripts we are reviewing include those for two Technical Notes--one for organic-geochemistry procedures aboard the JOIDES Resolution and the other for water-chemistry procedures aboard the Resolution--and a manuscript for the Leg 108 Preliminary Report.

We are proceeding with plans to publish selected good examples of logging data in the Part A books and are still in the process of ironing out methods with personnel at Lamont-Doherty Geological Observatory for achieving this objective. Currently we intend to publish such logging data at a smaller scale than the "barrel sheets" for two principal reasons: (1) to save page space and (2) to keep potentially imprudent readers from the temptation of comparing logs with their respective "barrel sheets" when some apparently literal parallel measurements might not be correlative.

To improve productivity, we have identified several items of

equipment that will speed up the processing of manuscripts and illustrations, including "barrel sheets." This spring we installed a Kurzweil 400 optical character reader, which will enable us to capture many manuscripts electronically that would otherwise be available to us only in hard copy. Other devices that we would like to obtain in the near future include (1) a raster graphics output device, (2) a large disk drive and backup tape system, (3) additional art- and workstations, and (4) a Hewlett-Packard 7586B drafting plotter.

Current and Future Staff

William Rose came to work in August 1985 as Supervisor of Publications. Already on board at that time were Karen Benson, now Chief Illustrator, Aida Prazak, now an Illustrator, Elsa Mazzullo, who currently wears two hats as Manuscript Coordinator and Hole Summary Coordinator, and John Beck, Chief Photographer. Fabiola Byrne, Administrative Assistant for the Science Services Department and Publications Distributions Specialist, continues to serve in those capacities.

New Publications personnel since this time last year include Ray Silk, Chief Production Editor, Marie Littleton, Copy Editor, Pamela Vesterby and Christine Yokley, Illustrators, and Garnet Gaither, Draftsperson. Mei-Chun Lee, who works for us on a half-time basis in the production section and operates our

Kurzweil optical character reader, puts in the other half of her time with the Data Base Group as a Data Analyst. Rhoda Segur recently joined the Publications Group as a full-time Compositor in which capacity she is transmitting electronic type orders for "barrel-sheet" text to the Printing Center at Texas A&M University. Several students are assisting on a part-time basis in the illustrations and production sections. We are especially fortunate to have Ray Silk with us, as he served as Production Manager for DSDP for the past 13 years.

Within the next month we plan to add another Copy Editor. By this fall we expect to hire a Chief Copy Editor and an additional Copy Editor. By the spring of 1987 we plan to have our full complement of Copy Editors and Illustrators.

An additional Production Editor will be hired within the next month or two. A third Production Editor, whom we expect to have in place by the fall of 1987, will round out our full-time Publications personnel.

Manuscript Tracking System

Moses Sun of the Computer Services Group has been working closely with the Publications Group during the past several months in developing an electronic manuscript tracking system. This system, when fully developed, will be highly sophisticated

and is designed to signal the Manuscript Coordinator when established deadlines are not met at various stages of manuscript flow so that appropriate communications can be generated and other necessary steps can be taken to improve flow. Other authorized personnel can gain access to the system to determine such things as proper work loads, better scheduling, and how to ease inordinate delays. Flow charts for Part A and Part B manuscripts have been appended to this report.

22-Apr-86

M E M O R A N D U M

TO: Dr. Roger Larson, Chairman
JOIDES Planning Committee

VIA: Dr. Stefan Gartner, Chairman
PCOM Publications Subcommittee

FROM: Dr. Russell B. Merrill
Curator & Manager of Science Services

SUBJECT: Cost of publishing Proceedings of the Ocean Drilling Program, Part B

In accordance with the request of the Planning Committee that we ascertain the cost of publishing Part B of the ODP Proceedings through an outside publisher, we issued a Request for Proposal during January, 1986, to fifteen publishers who are entirely independent of the Ocean Drilling Program. Of these, two are professional geoscience societies, five are university presses, and eight are commercial publishers. See Appendix A for a complete list of recipients of this RFP.

During December, 1985, we issued another RFP to eleven typesetters, to five printers, and to six firms capable of providing both services in order to determine the cost of publishing Part B within ODP as originally proposed. Recipients of this second RFP also included both commercial and non-profit organizations.

In order to insure that the costs we would be comparing would truly be comparable, both RFP's described a Part B publication which meets the design criteria and quality standards which have been defined for Part B by IHP and PCOM. Further, we assumed that peer review would be conducted under ODP/TAMU's supervision in either case, so that the role of an outside publisher would not include selection of manuscripts. In essence, the published works would be the same, whether published inhouse by ODP or via an outside publisher.

We received no bids from publishers in response to the publisher's RFP. Appendix B contains comments excerpted from the letters of those publishers who were kind enough to offer reasons for declining to bid.

The good news is that we received eight responses to the typesetting, printing and binding RFP. The successful bidders offered prices well below those assumed in making preliminary

OCEAN DRILLING PROGRAM
Ocean Drilling Program
Texas A&M University
College Station, TX 77843-3469
(409) 845-2673

estimates of ODP publications costs. Whereas we first estimated that the steady-state annual cost (1986 dollars) to publish Part B inhouse would be about $1.25 M, we now expect that it will run around $950 K.

A copy of a typical Part B volume (modeled upon DSDP volume 90, Part II) will cost the scientific community about $63.00 (8.1 cents per page), including delivery to the reader. In order to put this price into perspective relative to costs of other technical publications, we have compared it (see Appendix C) with institutional subscription prices for 18 reputable geoscience journals. The validity of this comparison derives from the fact that the institutional subscription rate is the cost to the geoscience community of putting one volume of a journal on a library shelf, while $63.00 is the cost of putting a typical volume of Part B on the same shelf.

It is clear from Appendix C that the cost of publishing Part B inhouse compares favorably with current market prices for similar publications produced elsewhere: at 8.1 cents per page, Part B will cost slightly less than half the average price of 16.7 cents per journal page, undercutting all of the commercial and many of the society publications listed.

As of this writing, the start-up schedule for Part B has been delayed by approximately six months-- principally in terms of hiring and training personnel and acquiring essential equipment-- while we have examined alternative publication modes. The first Part B manuscripts are due to arrive in September, 1986; therefore, I strongly recommend rapid action on this matter, so that authors reporting results of early ODP legs will not experience major delays.

CC: Dr. Philip D. Rabinowitz, Director
Ocean Drilling Program/TAMU

Dr. Louis Garrison, Deputy Director
Ocean Drilling Program/TAMU

Dr. Daniel Appleman, Chairman
JOIDES Information Handling Panel

Mr. William Rose, Supervisor
Ocean Drilling Program Publications

APPENDIX A

RECIPIENTS OF PUBLISHER'S RFP

Geological Society of America
Boulder, CO

Academic Press, Inc.
Austin, TX

University of California Press
Berkeley, CA

Cambridge University Press
New York, NY

Oxford University Press, Inc.
New York, NY

Van Nostrand Reinhold
Stroudsburg, PA

Springer-Verlag New York, Inc.
New York, NY

Pergamon Press, Inc.
Elmsford, NY

Freeman, Cooper & Co.
San Francisco, CA

W. H. Freeman & Co. Publishers
New York, NY

Elsevier Science Publishers
Bronxville, NY

John Wiley & Sons, Inc.
New York, NY

American Geophysical Union
Washington, DC

Texas A&M University Press
College Station, TX

University of Texas Press
Austin, TX

APPKNDIX B

Comments of Publishers who Declined to Bid

"Our business is exclusively that of book publisher, thus we do not have composition or printing equipment or knowledgeable staff, all of which your proposal requires."
- W. H. Freeman and Company

"Since projects of this nature do not readily fit on our list, I am afraid we will have to decline submitting a bid."
- University of California Press

"After carefully studying your proposal instructions, we have come to the conclusion that there are too many uncertainties for the subcontractor to make any reliable financial planning."
- Elsevier Science Publishers

Elsevier's concerns revolved around the unpredictability of quantity and quality of art, photography, and other author submissions, as well as quality control requirements.

"AGU does occasionally undertake production work for other organizations. Our capacity for doing this is currently limited by several new ventures... We are unable at this time to accommodate a project of this magnitude."
- American Geophysical Union

"... the Press does not enter into competitive bidding."
- University of Texas Press

APPENDIX C

Comparative Costs of a Random Sample of Internationally-Reputable Earth Science Publications

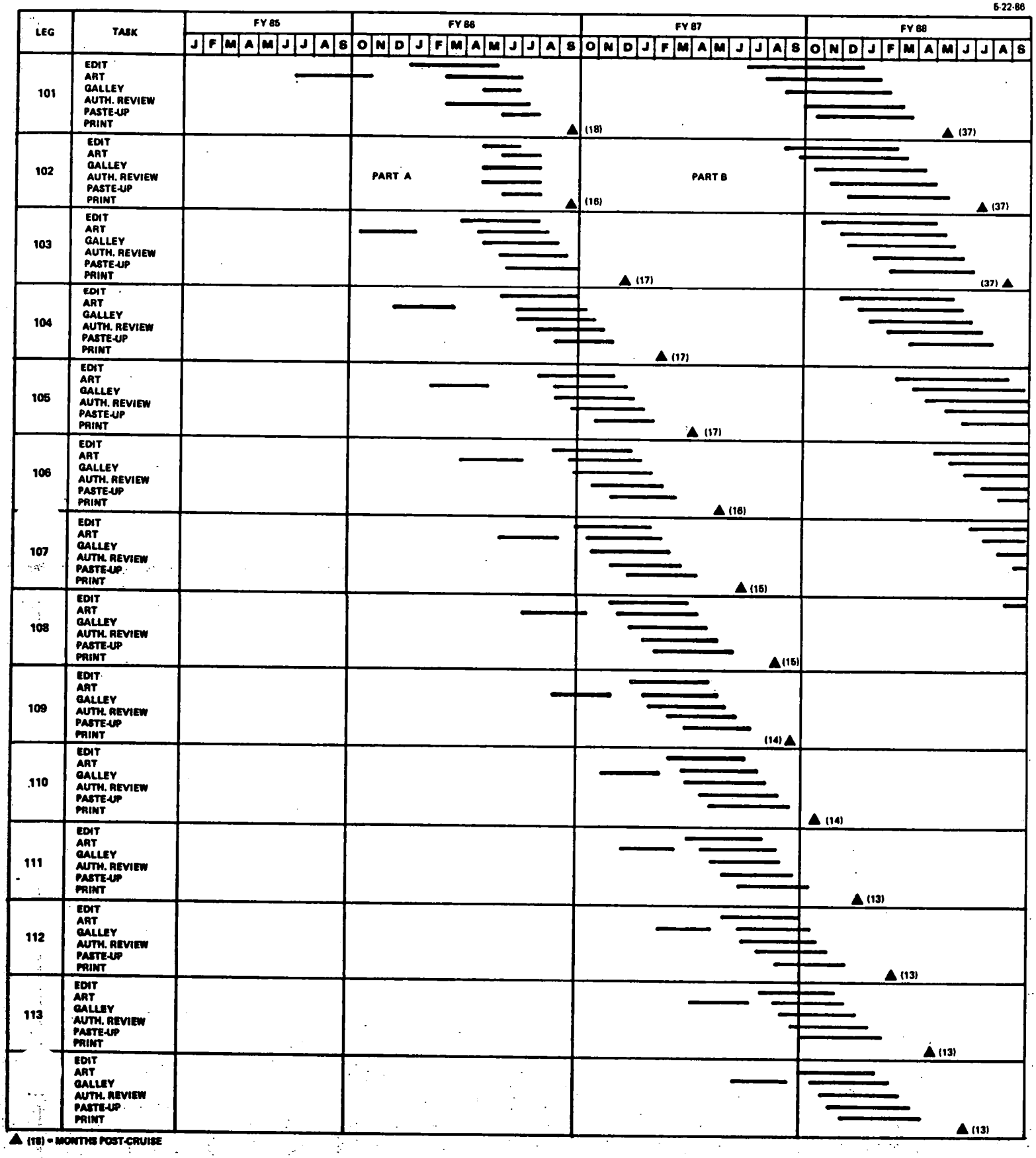
Journal	Annual Number of Vols (Issues)	Volume Price ($ US) to Institutions	Approx. Pages/Volume	Price per Page ($ US)
Contrib. Min. Pet.	3 (12)	556	1200	.463
Geol. Jour. (Liverpool)	1 (6)	135	360	.375
Paleocean-ography	1 (4)	95	400	.238
Geol. Mag.	1 (6)	160	640	.250
Norsk. Geol. Tidsk.	1 (4)	280	280	.225
Marine Geology	6 (24)	535	2400	.223
Lithos	1 (4)	69.50	320	.219
Sediment-ology	1 (6)	184	900	.204
J. Petrol.	1 (4)	120	600	.200
Eclog. Geol. Helv.	1 (3)	166	850	.195
Geochim. Cosmoch. A.	1 (12)	290	1700	.171
Amer. Mineral.	1 (6)	105	1300	.081
Proceedings ODP (Part B)	**6 (6)**	**63**	**780**	**.081**
Am. J. Sci.	1 (10)	80	1400	.057
Bull. G. S. A.	1 (12)	75	1330	.056

Journal	Annual Number of Vols (Issues)	Volume Price ($ US) to Institutions	Approx. Pages/Volume	Price per Page ($ US)
J. Paleo	1 (6)	78	1500	.052
J. Sed. Pet.	1 (6)	74	1400	.053
Bull. Seism. Soc. Amer.	1 (6)	75	2400	.031
J. Geoph. Res. (Solid Earth)	1 (12)	70	11000	.006

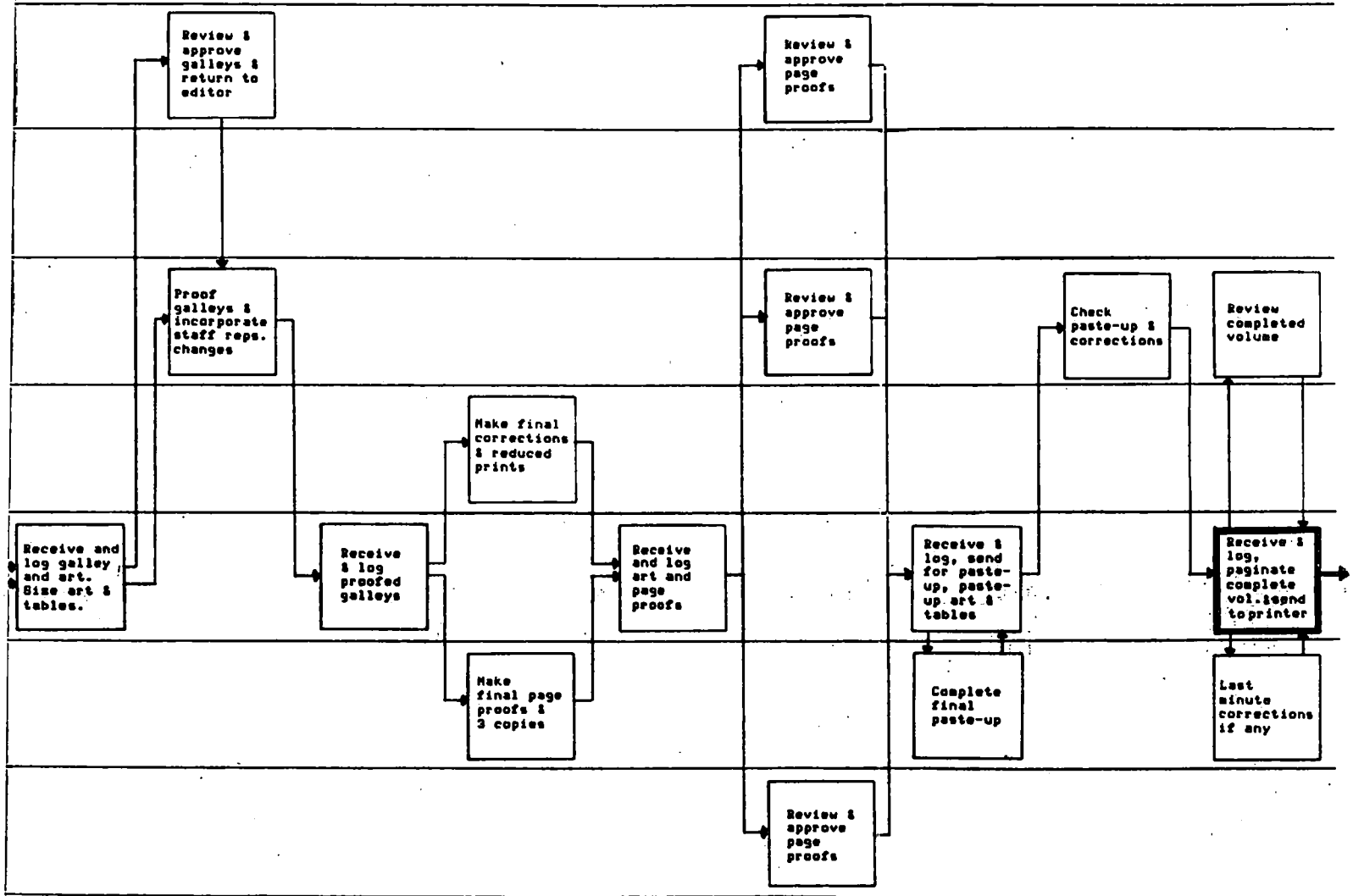
Compiled in April, 1986

PRODUCTION SCHEDULE - ODP PROCEEDINGS

5-22-86

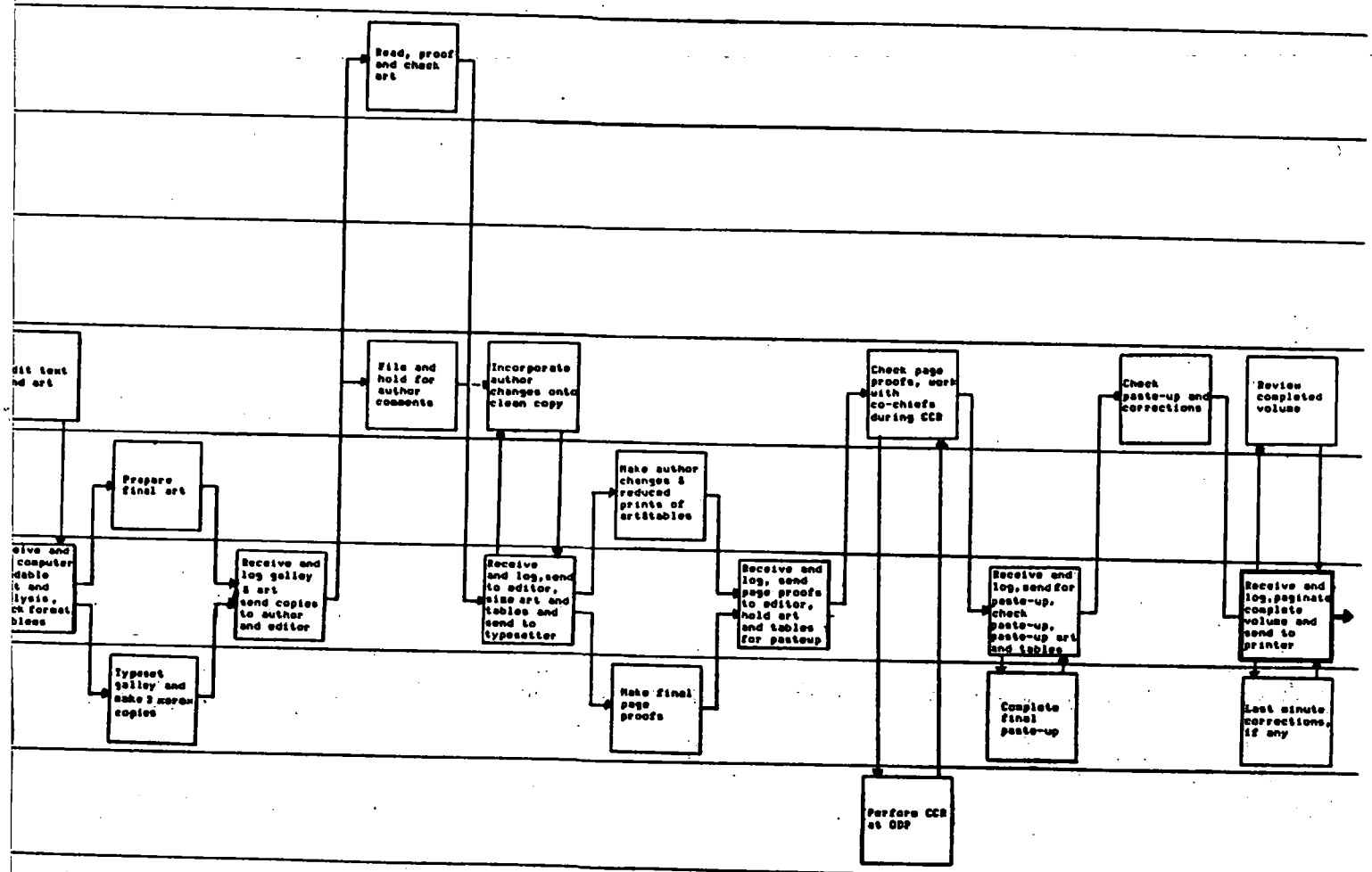


▲ (18) = MONTHS POST-CRUISE


Review & approve galleys & return to editor
Proof galleys & incorporate staff reps. changes
Receive and log galley and art. Size art & tables.
Receive & log proofed galleys
Make final corrections & reduced prints
Make final page proofs & 3 copies
Receive and log art and page proofs
Review & approve page proofs
Review & approve page proofs
Review & approve page proofs
Receive & log, send for paste-up, paste-up art & tables
Complete final paste-up
Check paste-up & corrections
Review completed volume
Receive & log, paginate complete vol.&send to printer
Last minute corrections if any

ODP PROC IGS PRODUCTION SCHEDULE - PART A

TASK	OPTIMUM TIME
Prepare front matter	2 wks
Check&approve core photo's	3 days
Prepare barrel sheets	8 wks
Correct barrel sheets	2 wks
Mount barrel sheets	3 days
Mount core photo's	3 wks
Edit	16 wks
Prepare galley	3 wks
Review galley	1 wk
Prepare art	16 wks
Review art	3 days
Correct art	1 wk
Size art & tables	1 wk
Reduced prints of art	4 days
Prepare page proofs	3 wks
Review page proofs	1 wk
Final paste-up	2 wks
Review paste-up	1 wk
Reduced prints of tables	2 days
Paste-up art & tables	3 days
Paginate & rework(if any)	1 wk
Editor review	3 days
Prepare forms, pkg. & ship	1 wk
Bluelines from printer	at 2nd wk
F & G's from printer	at 4th wk
Sample vol. from printer	at 6th wk
start distr. of volumes	at 7th wk


Read, proof and check art
File and hold for author comments
Incorporate author changes onto clean copy
Check page proofs, work with co-chiefs during CCB
Check paste-up and corrections
Review completed volume
Prepare final art
Make author changes & reduced prints of artitables
Receive and log galley & art send copies to author and editor
Receive and log,send to editor, size art and tables and send to typesetter
Receive and log, send page proofs to editor, hold art and tables for pasteup
Receive and log,send for paste-up, check paste-up, paste-up art and tables
Receive and log,paginate complete volume and send to printer
Typeset galley and make 3 xerox copies
Make final page proofs
Perform CCB at ODP
Complete final paste-up
Last minute corrections, if any

ODP PROC NGS PRODUCTION SCHEDULE - PART B

TASK	OPTIMUM TIME
Prepare front matter	2 wks
Edit	6 mos
Prepare galley	6 wks
Prepare art	6 mos
Size art & tables	4 wks
Reduced prints of art	4 wks
Author review	4 wks
Edit review auth. changes	4 wks
Prepare page proofs	4 wks
Edit review page proofs	3 wks
Correct art	3 wks
Ed. assist co-chief review	2 wks
Co-chief review	1 wk
Final paste-up	4 wks
Review paste-up	1 wk
Reduced prints of tables	1 wk
Paste-up art & tables	3 wks
Paginate & rework(if any)	1 wk
Editor review	3 days
Prepare forms, pkg. & ship	1 wk
Bluelines from printer	at 2nd wk
F & G's from printer	at 4th wk
Sample vol. from printer	at 6th wk
start distr. of volumes	at 7th wk

Attachment No. 5 IHP Report

June 25, 1986

TO: Members of the Information Handling Committee

FROM: Patricia Brown P.B.
Database Supervisor

SUBJECT: Database Group Status Report and Upcoming Activities

The ODP Data Base Group (DBG), with the help of the Computer Services Group (CSG), has moved closer during the past year to achieving its goal of creating a computerized database of ODP and DSDP data. We have concentrated on creating databases in S1032 for each of the data items generated on the ODP drillship, keeping in mind future data items that will result from subsequent work on ODP samples. Quality control has been of the utmost importance whether concerning paper forms being correctly and completely filled out, computerized forms with built in edit checks, or the use of standardized formats and naming conventions for computer generated data files. The editing and processing of the data, before making it available to the public, has been time consuming but very necessary to ensure data quality. Finally, we have passed the 12 month moratorium for public access to Legs 101-103 data. Data requests to date have been quickly and completely answered.

The following report outlines the activities of the DBG over the past year including the current status of the databases archived by the DBG and the activities planned for the next 6 and 12 months.

DATABASE PROGRESS TO DATE

I. Personnel

The absence of key personnel in the DBG and the understaffed condition of the CSG hampered the completion of the goals the DBG set forth before the Information Handling Panel at the last meeting. The Supervisor resigned in Nov. resulting in no work being done on the Igneous/Metamorphic databases. The Assistant Supervisor sailed on Leg 108 from the end of Feb. until the beginning of May. Although this slowed the immediate progress of the creation of the databases, the experience and knowledge gained concerning shipboard data collection has already been of great value to the DBG and will continue to be in the future. During Leg 108, the Assistant Supervisor was promoted to Supervisor. We plan to fill the Assistant Supervisor's position by mid-July and resume progress on the Igneous/Metamorphic databases as soon as possible.

A Data Entry person was hired last Nov. to enter the back log of data recorded on paper forms. For the databases that are built, we are approaching a steady state as we catch up with data entry (see chart). We are currently looking for a computer science student to help the DBG with simple programming needs. This will also alleviate some of the burden on the CSG.

II. Present Status of ODP Databases

The following chart lists the databases archived by the DBG and the present status of each. All data received on paper forms from the ship are immediately processed, microfilmed, and then are available on both paper and microfilm. No data were collected by ODP on Leg 102 except Underway Geophysical data.

The completed designs for the Physical Properties databases (Index Properties, Compressional/Shear Wave Velocity, GRAPE Special 2 Minute Count, and Shear Strength) and the Site and Hole databases are awaiting implementation by the CSG.

DATABASE	LEGS ON PAPER/ MICROFILM	LEGS IN COMPUTER	IN S1032 FORMAT	SHIPBOARD COLLECTION METHOD *
Corelog	101-108	101-108	yes	M
Sediment/Sedimentary Rock				
Visual Core Descriptions	101-108	--		P
Smearslide/Thin Section	101-108	101	yes	P
Igneous/Metamorphic Rock				
Visual Core Descriptions	103-106, 109	--		P
Thin Section Descriptions	103-106, 109	--		P
XRF -no data-				
Physical Properties				
G.R.A.P.E.	--	101-108	no	D
Thermal Conductivity	101-108	101-108	no	P & D
Compressional/Shear Wave Velocity	101-108	--		P
Index Properties (Bulk density, Porosity, Water Content, Grain Density)	101-108	--		P
G.R.A.P.E. Spec. 2 Min. Count	101-108	--		P
Shear Strength	101-108	--		P
Atterberg Limits -no data-				
Consolidation/Triaxial Log -no data-				
Chemistry				
Rock Evaluation	101-108	101-105	yes	P
CHN	101-108	101-104	yes	P
CaCO3	101-108	101-104	yes	P
IW	101-108	101-104	yes	P
Gas Chromatography	101-108	--		P
Paleomagnetics				
Discrete Samples	101-107	101-104	yes	P (to 107)
		108	no	D (after 107)
Whole Core Samples	--	101-108	no	D
Paleontology	101-108	--		P
Site	101-108	101-108	yes	P
Hole	101-108	--		P

Underway Geophysical--Legs 101-103 processed by Stu Smith, Legs 101-108 computerized and on paper forms and roll records.

* P = Paper
M = Manually entered onto a computerized screen form
D = Direct capture of computer generated data by the VAX

III. DSDP Data

Several DSDP databases have been sent to ODP over the past 2 years. Most were preliminary copies and will be replaced in the future. As DSDP completes each database, a final version is sent to ODP and that copy becomes part of the permanent ODP data collection. The final versions we have received are:

XRD
Carbonate
Vane Shear
Sonic Velocity
Grain Size
Paleontologic Data (Legs 1-82).

The XRD database is in a S1032 database. The other databases are awaiting conversion to S1032 format.

IV. Data Requests

One of the major activities of the DBG is to answer data requests. Over the past year the Data Librarian has responded to 59 requests outside of those from ODP staff members.

Request Type	Number of Requests
Photos	49
Sediment Description	6
Underway	1
Corelog	1
Sediment Smear Slides	1
Site Summary	1

V. Miscellaneous

To facilitate the transfer of computerized data from ship to shore, the DBG computer account has been redesigned into 2 directories. The first directory mimics the shipboard directory with all the data stored by data type in a Leg subdirectory. After the data have been edited and processed as needed, they are transferred into the second part of the DBG directory. The second part is organized by data type, but all the Legs have been incorporated into one database. This is the permanent storage place for all the finalized databases.

Another accomplishment of the DBG in the past year was the presentation by Kathe Lighty of the paper entitled "Collection and Quality Control of Marine Geological Data by the Ocean Drilling Program" by P. Brown, K. Lighty, R. Merrill, R. Kidd, and P. Rabinowitz at the Marine Data Systems International Symposium, April 30 - May 2. The paper is published in the Proceedings of that meeting.

PROJECTED ACTIVITIES FOR THE NEXT 6 MONTHS AND 12 MONTHS

I. 6 Months

The following activities are projected to be completed by the end of Dec., 1986.

1. Database Design

a. A preliminary design for the databases and computerized shore data entry screens for Sediment Visual Core Descriptions, and Igneous/Metamorphic Visual Core Descriptions and Thin Sections.

b. The implementation of improvements needed for the Paleomagnetic Discrete Sample database to facilitate data collection directly by the computer.

c. A report resulting from a thorough review of the Corelog database that describes any changes, improvements, etc. needed for Corelog.

2. Shipboard Computerization of Data Collection

a. The completion by the CSG of the computerized data entry screens and databases for:

- -Physical Properties databases, including Index Properties, Compressional/Shear Wave Velocity, GRAPE Special 2 Minute Count, and Shear Strength
- -Site and Hole databases, including the design of the Site Summary report.

b. The completion of a preliminary design of the computerized data collection scheme for CHN and $CaCO_3$.

c. The initial design of a computerized data collection scheme and the associated databases for XRF data.

3. Database Cleanup

a. For the Paleomagnetics data files collected on the computer, the renaming of the files in a standardized format, transferring the data into a S1032 database and off-loading the raw data to tape. Should complete this through Leg 104 data.

b. Renaming to a standardized format the GRAPE and Thermal Conductivity data files collected on the computer for Legs 101 to 106.

4. Editing and keyboarding onshore the data for the following databases and Legs:

Database	Legs
Sediment Smearslide	103-104
Paleomagnetics (Discrete)	105-107 (following 107, these data have been collected on computer)

Rock Evaluation	
CHN	107-111
CaCO3	105-111
IW	105-111
Gas Chromatography	105-111
Hole	101-111
Site	101-111
	109-111

5. Processing of Underway data by Stu Smith for Legs 104 to 111.

6. Begin linking the various databases for more complex searches and reports.

II. 12 Months

The following activities should be completed by the end of June, 1987.

1. Database Design

a. Completion and implementation of the databases and computerized shore data entry screens for Sediment Visual Core Descriptions, and Igneous/Metamorphic Visual Core Descriptions and Thin Sections.

b. CSG will be in the process of making any requested improvements to the Corelog database.

c. Completion of a preliminary design for the programs and databases needed to generate ODP's input to the Core Curators file for the National Geophysical Data Center (NGDC).

2. Shipboard Computerization of Data Collection

a. The implementation and use of the computerized data entry screens and databases by Leg 114 for:
-Physical Properties databases, including Index Properties, Compressional/Shear Wave Velocity, GRAPE Special 2 Minute Count, and Shear Strength
-Site and Hole databases.

b. The implementation of the computerized data collection scheme for CHN and CaCO3 by Leg 115, and for XRF including the finalized database by Leg 114.

3. Database Cleanup

a. Finish cleanup for the Paleomagnetics data files for Legs 105-110.

b. Finish cleanup for GRAPE and Thermal Conductivity data files for Legs 107 to 111.

c. Begin transfer of XRF files into a S1032 database. Data backlog begins with Leg 109.

4. Editing and keyboarding onshore the data for the following databases and Legs:

Database	Legs
Sediment Visual Core Descriptions	101
Sediment Smearslides	105-112
Physical Properties	101-113 (by 114 should be entered on ship)
Compressional/Shear Wave Velocity, Index Properties, GRAPE Spec. 2 Minute Count, Shear Strength	
Rock Evaluation	112-114
CHN	112-114 (by 115 should be entered on ship)
CaCO3	112-114 (by 115 should be entered on ship)
IW	112-114
Gas Chromatography	112-114
Igneous/Metamorphic Visual Core Descriptions	103, 104, 105
Igneous/Metamorphic Thin Sections	103, 104, 105
Site	112-113 (by 114 should be entered on ship)
Hole	112-113 (by 114 should be entered on ship)

5. Processing by Stu Smith of Underway data for Legs 112 to 114.

6. Continue implementing links for the various databases in order to make more complex searches and reports.

III. General Activities

Over the next year, as time permits, we will begin integrating the DSDP databases into the ODP collection. Our first priorities will be the Site Summary database and the Sedimentary databases including Visual Core Descriptions and Smearslide Descriptions

As each database is readied for public access, a document explaining the contents and format of the database will be completed. This will aid requestors in the use of the ODP databases.

Completed databases will be turned over to NGDC. Our first priority for NGDC will be the Site Summary Report which is generated from the Site and Hole databases.

Although at present several databases can be searched and reports generated, the final edit checks have not been made. We are awaiting the completion of the batch edit checks designed by CSG.

Finally, the DBG along with CSG will be setting up the tape storage library to archive data that will be stored on computer tapes.

Attachment No. 6 IHP Report

July 3, 1986

MEMORANDUM

To: Members, Information Handling Panel

From: Jack Foster
Supervisor, Computer Services

Subject: Computer Services Group Status Report

The Computer Services Group has been very busy since the last report which was provided in September 1985. There have been several significant accomplishments since that time, and more are planned for the future.

Attachment A of this document outlines some of the most significant accomplishments since last September, and Attachment B presents a description of the applications systems and current status.

A presentation regarding equipment configurations and acquisition, and status of software development was given to representatives of JOI and NSF at JOI headquarters in April. The result of this meeting was that a long range equipment configuration plan was submitted to JOI. The plan was accepted and equipment for FY86-FY87 was approved. This equipment is to be acquired as funds are available. Attachment C shows the planned configurations for the time period through FY89. The configurations are subject to change as requirements of ODP change.

OCEAN DRILLING PROGRAM

Ocean Drilling Program
Texas A&M University
College Station, TX 77843-3469
(409) 845-2673

Attachment A - Significant Events Since September 1985

HARDWARE

- Long range equipment configurations approved by JOI

- Equipment on order to upgrade ship and shore VAX computer systems to FY87 proposed configurations as shown in Attachment C.

- Decision made to migrate to IBM PCs or compatible for microcomputers to be purchased in the future. DEC is phasing out the PRO equipment. PRO350 microcomputers are no longer available from DEC - only the PRO380 is available.

- Installation of the initial components for an ETHERNET Local Area Network (LAN) on ship and shore.

- Connection of subsea TV camera to video distribution system and addition of a TV channel to the distribution unit to permit viewing on the TV monitors in the lab stack.

SOFTWARE

- Development and installation of a library containing PicSure chart templates to facilitate plotting of shipboard data. PicSure is the interactive graphics portion of the DI-3000 Graphics System.

- Software developed to reformat and plot data from the von Herzen heatflow recording package. This allows the rapid analysis of heatflow runs.

- Software developed to reformat and plot data from the Perkin-Elmer CHN analyzer. Files may be combined to produce plots of CHN data from an entire hole.

- Installation of DEC VAX/VMS version 4.2 operating system on the shipboard and shorebased VAX systems.

- Software developed to reformat, compile, and plot GRAPE measurements. This software allows high quality plots to be produced from routine whole-core GRAPE measurements. Plots may be made from individual sections or the sections may be combined to produce plots of GRAPE data for an entire hole.

- Software was developed to plot a variety of coring data for measuring drilling performance. These plots depict operational parameters such as meters cored

versus recovery.

- Computerized data entry forms and editing procedures developed for entry of:
  - Chemistry data
  - Paleomagnetics data
  - Smear Slide/Thin Section data

- Plotting program written which allows the ship's track to be plotted. The program provides capability for correction and deletion of invalid or questionable points as desired by a scientist or technician.

MISCELLANEOUS

- Reliable computer-to-computer satellite communications between ship and shore VAX computers established on a regular basis.

- New prospectus developed for shipboard classes being taught to scientists and technicians (see following pages).

PROSPECTUS

JOIDES RESOLUTION COMPUTER CLASS

Overview

Experience aboard the Glomar Challenger showed that computers could really enhance the shipboard scientific effort by reducing the time an individual spent collecting and curating data, and streamlining the preparation of shipboard manuscripts.

The computer system aboard the JOIDES Resolution was integrated into ODP operations from the very beginning. We believe you'll find that using its many capabilities will help get you through the necessary clerical work faster, giving you more time to do science.

Of course, any system as complex as this only becomes useful once you can find your way through the initial "learning curve" and gain access to the specific tools you need.

The purpose of the computer classes offered on board is to bring you up to a working skill level as rapidly as possible, so you can get on with your science. The classes vary in length from 15 minutes to an hour, and each provides enough of the basic information to allow you to begin effectively using the tool immediately. No attempt is made to produce computer experts; the classes offer just enough to get you started.

The Classes

The name, class format and length of each class is presented below, along with a short description of the material covered.

Please read these carefully to determine if the software described is one that you'll need in your work. The ship will be very busy once we begin drilling, and anyone who forgets to sign up or attend a class now will only be able to make it up as time permits.

If, after reading the descriptions below, you are still unsure of which classes to attend, the following are recommended for every cruise participant:

1. Computer System Orientation
2. Introduction to CT*OS Word Processing
3. SAM (if you are going to work at the sampling table)

Class Descriptions

Computer System Orientation
Lecture/Tour, ~60 minutes

This class covers many of the mechanical aspects of what you need to know to use any of the system's tools. We begin with a brief discussion of how the system is put together, explain the mysteries of a "Distributed Architecture", and introduce you to JAX (the central system processor) and the PRO 350 microcomputer. The functions of the various peripherals are described, and you will be shown how to run the terminal emulation program and access JAX. Finally, we'll demonstrate the "News" program which allows you to display informative messages shipwide over the Channel 9 video. Questions are encouraged.

Introduction to CT*OS
Self-paced, 60-90 minutes

This introduction to CT*OS, the shipboard word processing program provides you with a step-by-step set of exercises designed to demonstrate important CT*OS functions. Paired in teams at a PRO 350, you work through the material at a comfortable speed. The instructor is available for questions, and to help you get unstuck. On completion of this course you should be able to run the CT*OS program, create or edit a document, print it, save it, and copy the working diskette onto a back-up. Remember to bring along your two CT*OS diskettes to class.

Advanced CT*OS
Self-paced, 60-90 minutes

The CT*OS "challenge" class explores the subtleties and advanced features of the program. You will edit several pre-existing documents to produce various formats and font changes. The class is intended for those who need to use the full capabilities of the word processing program.

PICSURE Graphics
Lecture/Demonstration, 60 minutes

PICSURE is a sophisticated, but easy-to-use, presentation graphics package which allows you to produce computer-generated plots of your data. This introductory class covers the following topics: Getting your data into a format readable by PICSURE;

running the program; constructing and saving the plot; choosing an output device; and producing hardcopy. PICSURE command files will be described for those who produce the same plot many times using different data. PICSURE documentation is also discussed for those desiring to produce more complex plots.

SMOOTH
Lecture/Demonstration, 60 minutes

SMOOTH is a software package which plots the ship's navigation based on transit satellite or other navigation information. The class provides a complete demonstration of all SMOOTH features and operations.

SAM
Lecture/Demonstration, 90 minutes

SAM is the automated sampling system used onboard to keep track of all core samples taken. The program provides quality control checks on sample data as they are entered, prints sample labels, and creates an electronic database for later access to the information. The class combines technical information on using the SAM system with other sampling techniques and curatorial considerations.

PALEO
Demonstration, 15 minutes

The PALEO display program allows the paleontologists to display their current age estimate for the most recent sample

shipwide via the Channel 7 video system.

Programmers Workshop
Lecture/Discussion, 30-60 minutes

The workshop is for experienced, novice or even would-be programmers. The range of programming tools available on the JAX system is described. Questions are encouraged.

Attachment B - Program Descriptions and Status

There are several programs which have been developed by the CSG and are currently in use on the ship and/or shore. In addition, other programs which have been identified as being required are also in various stages of analysis, design, development, and testing. These programs will be briefly described followed by a status summary as pertains to each program or system.

Core Log System

The Core Log system was one of the first installed aboard ship because of its central importance for reference by all core data systems and by several operational groups. Some enhancements are desirable but are not yet scheduled.

Core Sample Inventory System

This system catalogues physical samples taken and materials on hand and associates them with source cores and with sample recipients. It is referenced by the test result systems. A partial version is operational aboard ship, running on a PRO 350. Features remaining to be implemented include linkage with the central Core Log and Core Sample Inventory data sets on the VAX and tracking of sample material on shore. Requirements have been determined for both of these but a Requirements Definition document has not yet been prepared.

Core Test Result Systems

Data acquisition for most of these systems is handled by turn-key software coupled with instrumentation; the data is accumulated in microcomputer files and then transferred to the VAX.

The GRAPE apparatus is coupled with a PRO 350 via an IEEE 488 interface for real-time data acquisition. This software, developed by a consultant, requires additional motor control, two minute discrete GRAPE support, links to the VAX, implementation of algorithms for re-scanning selected portions of sections at different speeds, and possible support for the P-wave logger. These features will be implemented during calendar 1986 by the same consultant.

Requirements have been determined for data entry and maintenance for velocity, index properties, and strength tests. Preparation of the Requirements Definition and

Design Documents are underway. Data collection will be implemented on a PRO 350 or IBM PC with a communications link to the Core Log and Sample Inventory data sets on the VAX. Installation is planned for calendar 1986.

Data sets, forms, and editing procedures have been developed for entry of chemistry and paleomagnetics data recorded on paper forms, and data entry is in progress.

Core Material Descriptive Systems

Descriptions of core material, such as sedimentary and hard rock visual core descriptions, smear slide and thin section descriptions, and paleontology and biostratigraphy reports, are currently being captured on standardized paper forms. Data sets, computerized forms, and editing procedures have been defined, and data entry is underway, to transcribe and edit the smear slide/thin section data from the paper forms into data sets. Ultimately, this data will be entered on art stations aboard ship, which will be PRO 350 microcomputers equipped with graphics devices and software.

Leg, Site, and Hole Data Base Maintenance

The Leg, Site, and Hole data bases provide information for various summary reports and form the top three levels of the integrated core data base. Presently they are maintained as standardized hard copy reports using word processing software. Requirements definition is underway for maintenance of this data using forms-driven data entry and data base software. The Site data set, form, and editing procedures have been defined, and data entry is in progress.

Core Data Analysis Software

Core data analysis software now existing has been developed by users, in most cases with assistance from CSG personnel, to meet their individual needs. These programs transfer files, plot data, or perform data base retrievals. The sea-going systems managers are providing support on a time-available basis for requirements of this kind for physical properties, paleomagnetics, and chemistry data.

At the request of ODP staff scientists, a system of utility programs has been developed to add top-of-core, sample, and bottom-of-core depths to any data file in which records begin with full sample IDs. These programs will be made available at the beginning of Leg 110. Besides being usable end products, they provide

good examples of managing the data base interface and cross-references among data sets under program control which may be cannibalized and modified by users.

Integrated Scientific Data Base

Programs and command files are required to automate data set loading, reformatting, quality control checks, and retrieval. Indexes and cross-references to the data base, and software for searching them, are also needed. An ultimate goal is to make a copy of the indexes and the core-related data available to the public for on-line read-only access.

Satellite Navigation Data Collection (NAVLOG)

Satellite positioning data are accumulated by a turn-key system on the ship's bridge. The data are currently being transmitted electronically to a floppy disk on the PRO 350 in the Underway Lab; they also are available on printed output, and selected parts are encoded on forms. A Global Positioning System (GPS) involving new hardware and software was installed during Leg 106, and software has now been implemented to incorporate GPS data into the seismic tape header records.

Underway Data Analysis Software

As for core data, most underway data analysis software either is included in turn-key packages or has been developed by users with assistance from CSG.

A system has been developed by CSG to plot the smoothed ship's course; it is installed in a partial implementation. Enhancements, including GPS data, real-time plotting, and more flexible scaling, have been assigned a high priority by Science Operations. However, unless outside consultants are used or more CSG personnel are obtained, these enhancements cannot be installed before mid 1987.

Materials Management System

One of the first systems installed aboard ship was a partial implementation of an inventory management system for capital and expendable equipment. Called the Materials Management system because it ultimately will include bill of materials, technical drawing catalogue, and capital equipment accounting functions, the system currently provides for maintenance of item and vendor master files and stock usage and replenishment tracking both aboard

and ashore. Processing of end-of-leg crossover between ship and shore data sets has now been installed. Shipment and order processing will be implemented during calendar 1986.

Publications Tracking System

Requirements definition and design work is currently underway for a system to monitor processing of ODP publications. This work and implementation will proceed during 1986 but will not be completed until the end of calendar 1987. The preliminary design phase has recently been completed.

ODP Participant Data Base

Data files from the DASI system developed in the Deep Sea Drilling Program (DSDP) have been acquired, reformatted, and loaded into System 1032 data bases with a minimum of re-design by CSG. This data describes participants in the DSDP and ODP programs and documents the nature and history of their affiliation with either program. Procedures heve been developed for updating the data base via computerized forms with full editing and for retrieving data in common ways.

Sample Distribution and Publication Data Bases

Data bases were maintained at DSDP to track distribution of samples from ship and shore and to provide key word indexes to samples and publications. Conversion of these data bases to ODP data base systems in the same way as for DASI will be accomplished during calendar 1986.

The following table shows tasks and expected completion dates by application:

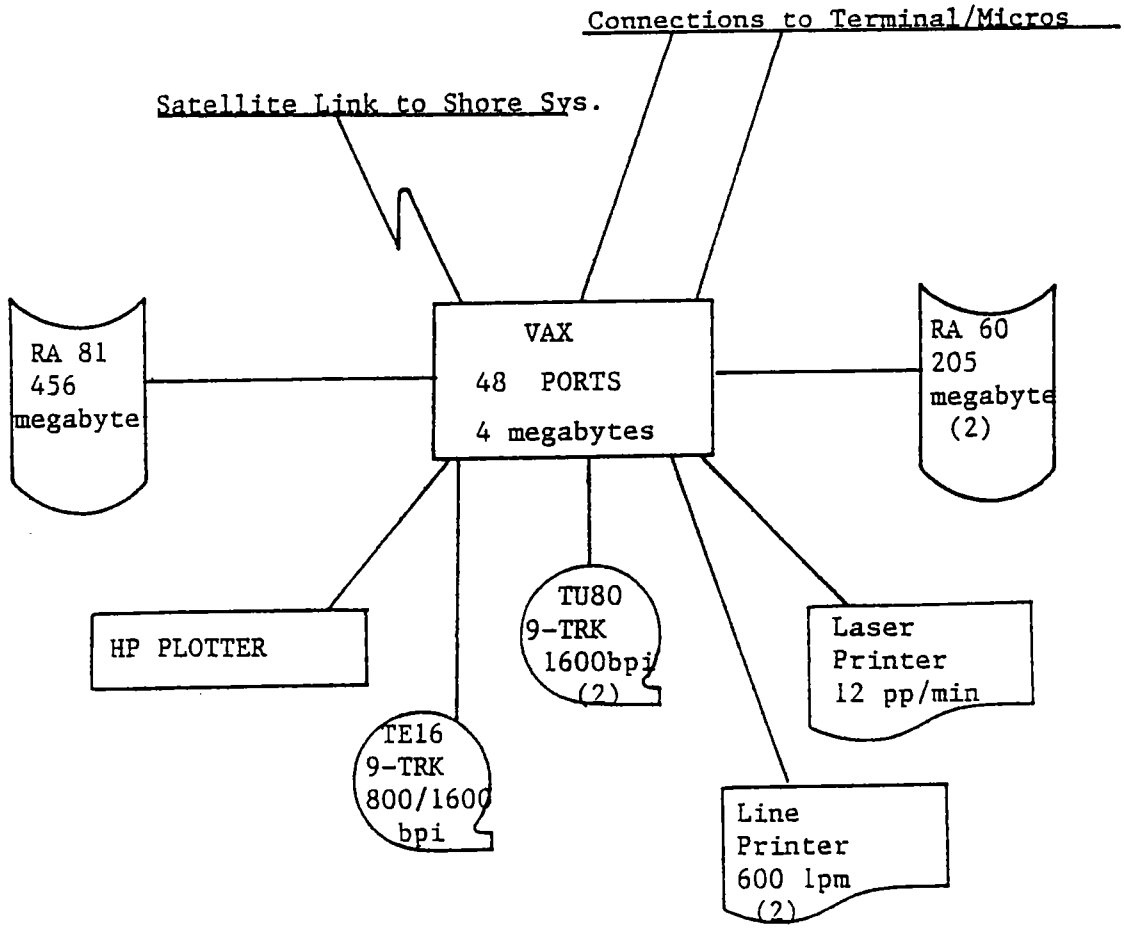
Application	Tasks	Date
Core Log	Various enhancements	Unscheduled
Core Sample Inventory	Requirements determination	**Completed**
	Linkage with VAX central data base	December 1986
	Tracking of sample material on shore	April 1987
Core Test Results		
- GRAPE	Motor control, two minute GRAPE, linkage with VAX central data base	October 1986
	Algorithms for re-scanning, integration of P-wave logger	To be determined
- Velocity, index properties, strength	Requirements determination	**Completed**
	Data entry and maintenance, linkage with VAX central data base	December 1986
- Others	Automated data entry and editing from paper forms for chemistry and paleomagnetics	**Completed**
	Linkage of turn-key systems with VAX	December 1987
Core Material Descriptions	Automated data entry and editing of smear slide/thin section data from paper forms	**Completed**
	Art station implementation	Unscheduled

Leg, Site, Hole Data Base Maintenance	Automated data entry and editing of site data from paper forms	**Completed**
	Leg and Hole data set maintenance, integration with Site data set and Core Log	October 1986
Core Data Analysis		
- Addition of depth data to user's data records	Design and implementation	**Completed**
- Others	Requirements to be defined by users	Unscheduled - time-available support only
Integrated Scientific Data Base	Data loading, reformatting, quality control, indexing, retrieval procedures for ODP data	December 1986
	Loading and/or reformatting of DSDP data	As received
	Public on-line read-only access	Mid 1988
NAVLOG	Incorporation of GPS data into seismic headers	**Completed**
Underway Data Analysis	Phase I implementation of non-real-time smooth track plotting	**Completed**
	GPS data processing, real-time plotting, various extra options and enhancements	June 1987
Materials Management	End-of-leg crossover processing	**Completed**
	Shipment processing - requirements determination	**Completed**
	- design and implementation	October 1986
	Order processing	December 1986
	Bar code support	To be determined

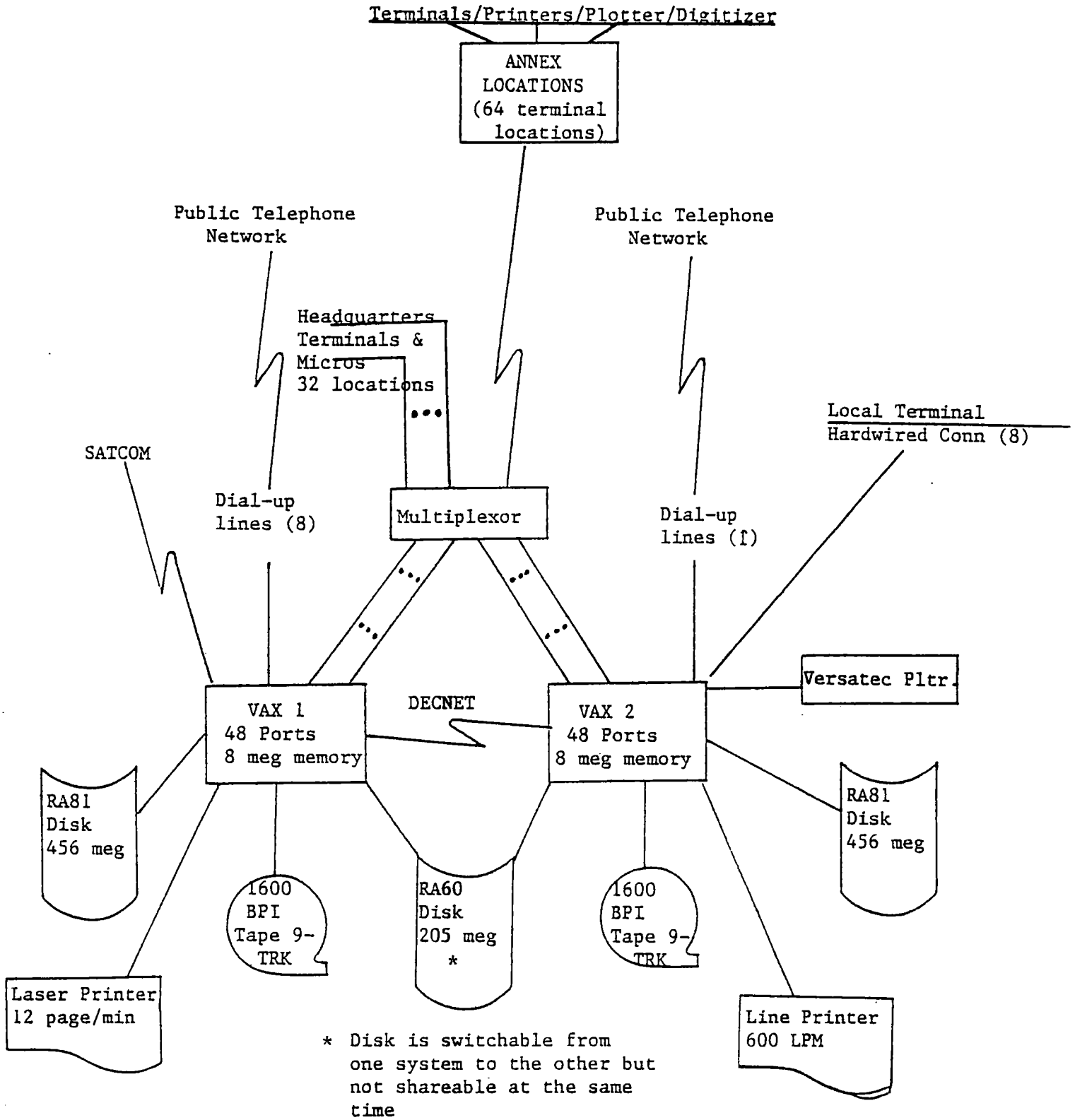
Publications Tracking	Complete system analysis, design, implementation	December 1987
ODP Participant Data Base	Design and implementation	**Completed**
Sample, Publication, Keyword Data Base	Data entry and maintenance procedures	October 1986
	Loading of DSDP data	When received
Publications Art Stations	Barrel Sheet drafting	**Completed**
	Publications Line Drawing Package	December 1986

Attachment C - Current & Proposed Equipment Configurations

CURRENT SHIPBOARD COMPUTER SYSTEM CONFIGURATION



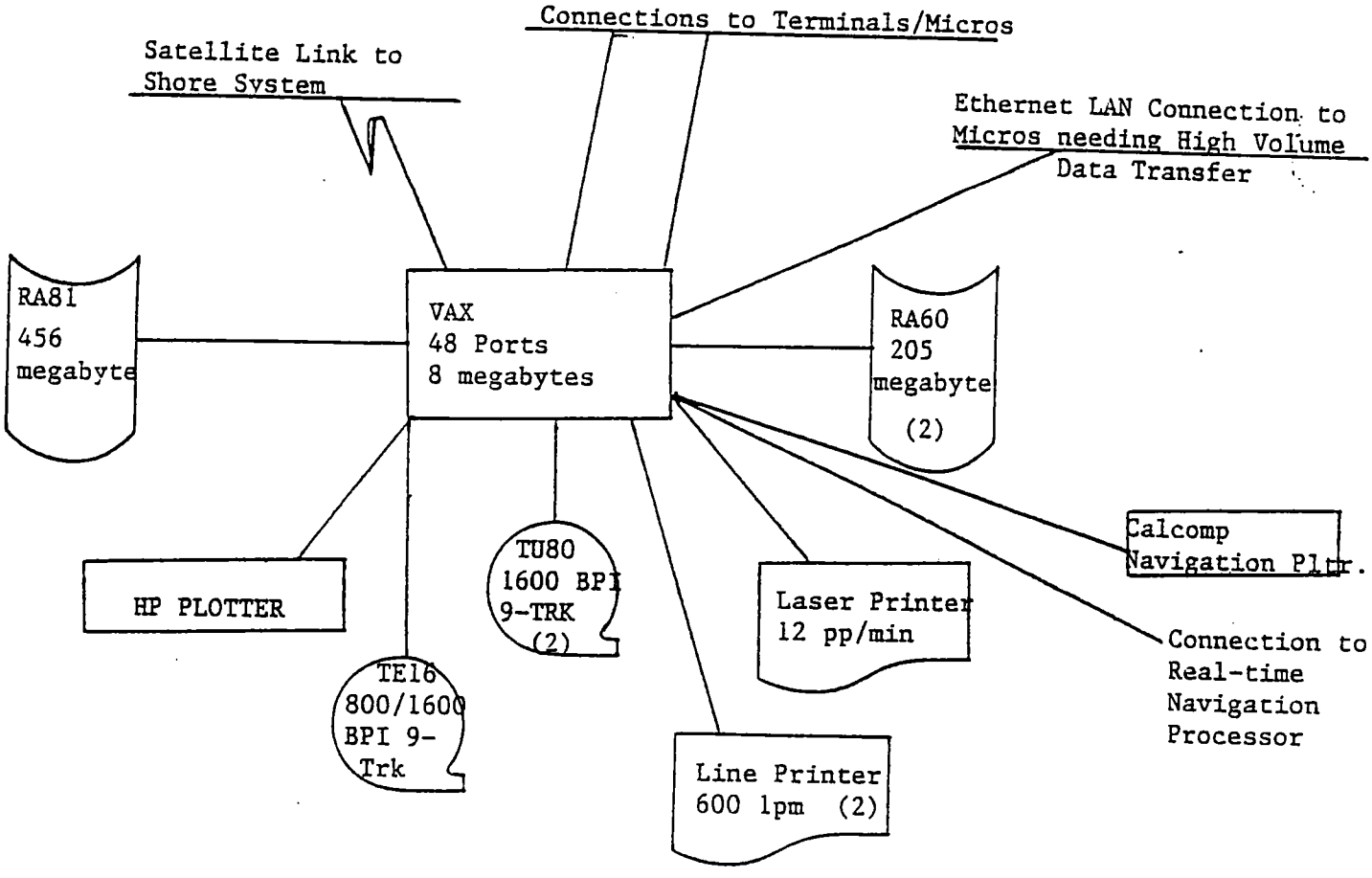
CURRENT SHOREBASED COMPUTER SYSTEM CONFIGURATION



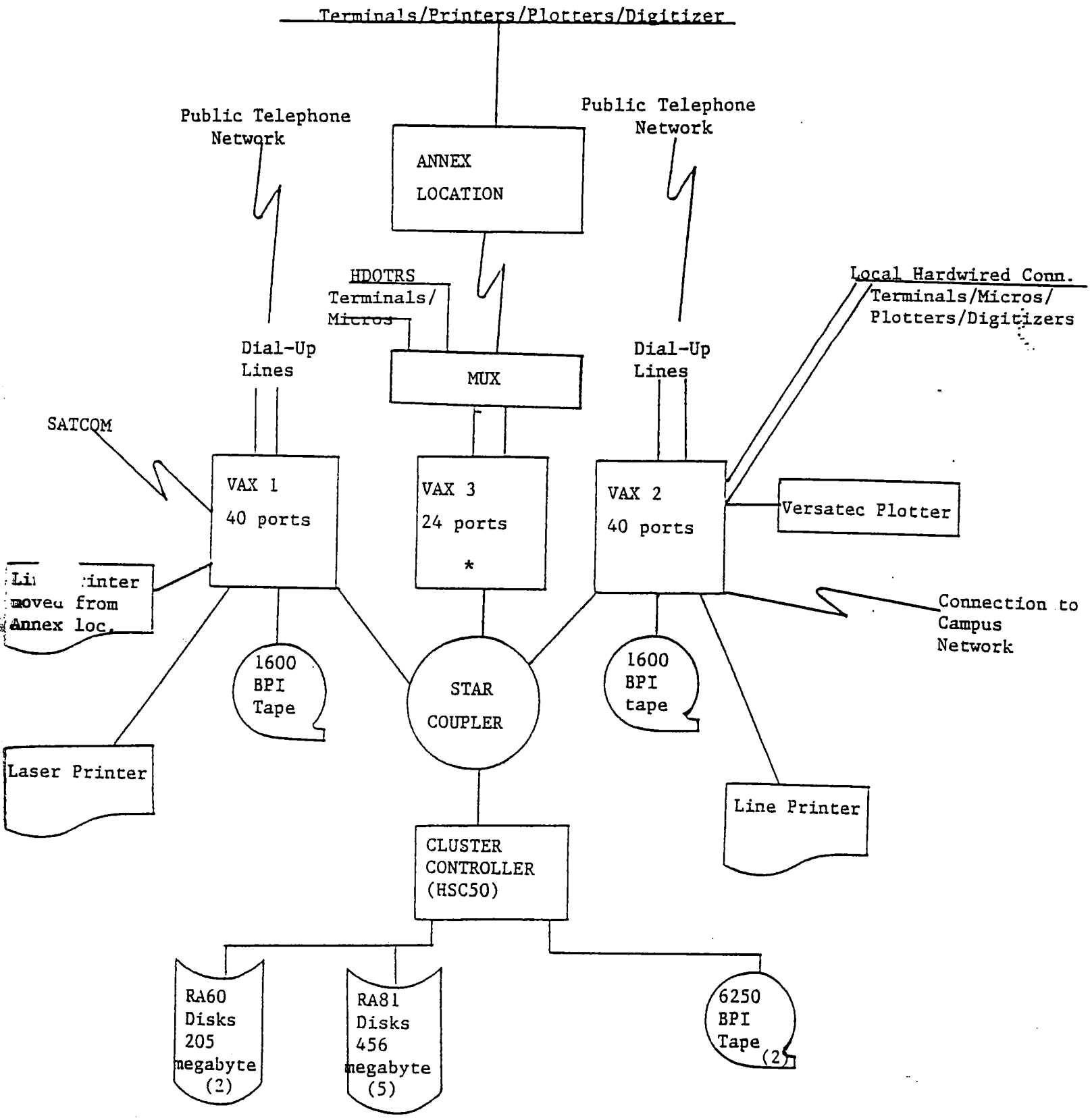
* Disk is switchable from one system to the other but not shareable at the same time

FY87 SHIPBOARD COMPUTER

SYSTEM CONFIGURATION



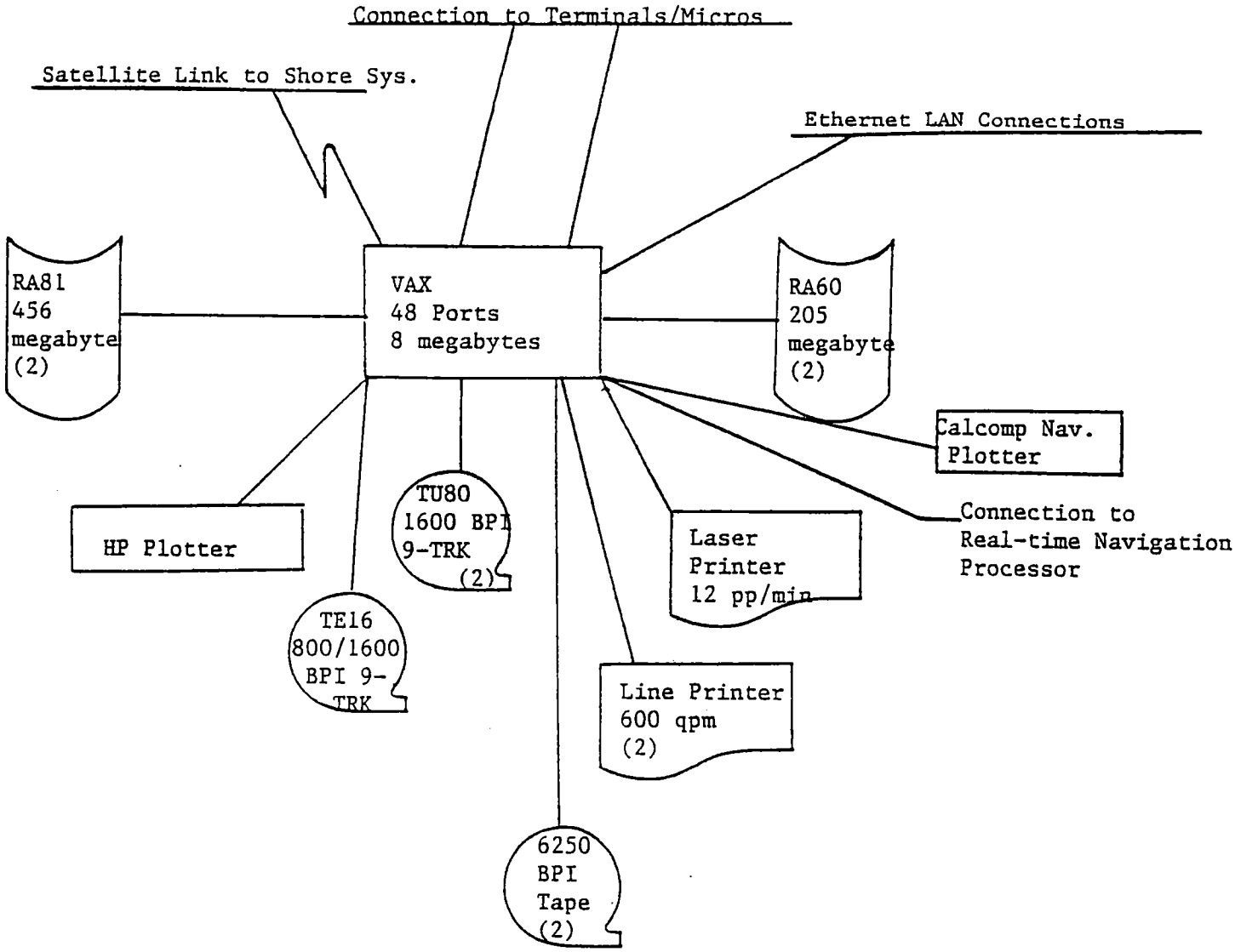
FY87 PLANNED SHOREBASED CONFIGURATION



3rd CPU with CI750 Bus Interface to Star Coupler to be added during FY87 only if growth exceeds present CPU capacity.

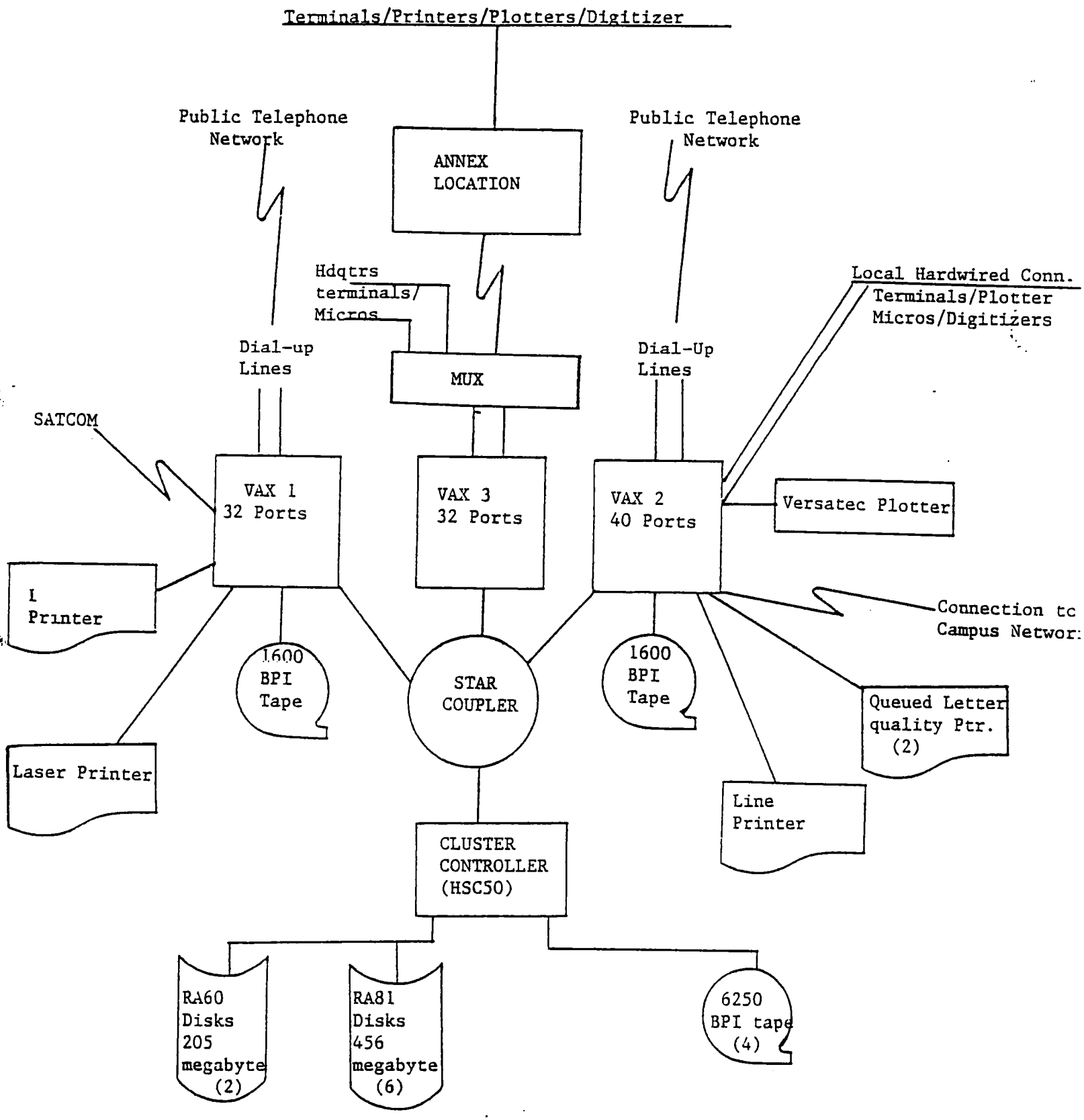
FY88 PLANNED SHIPBOARD

CONFIGURATION

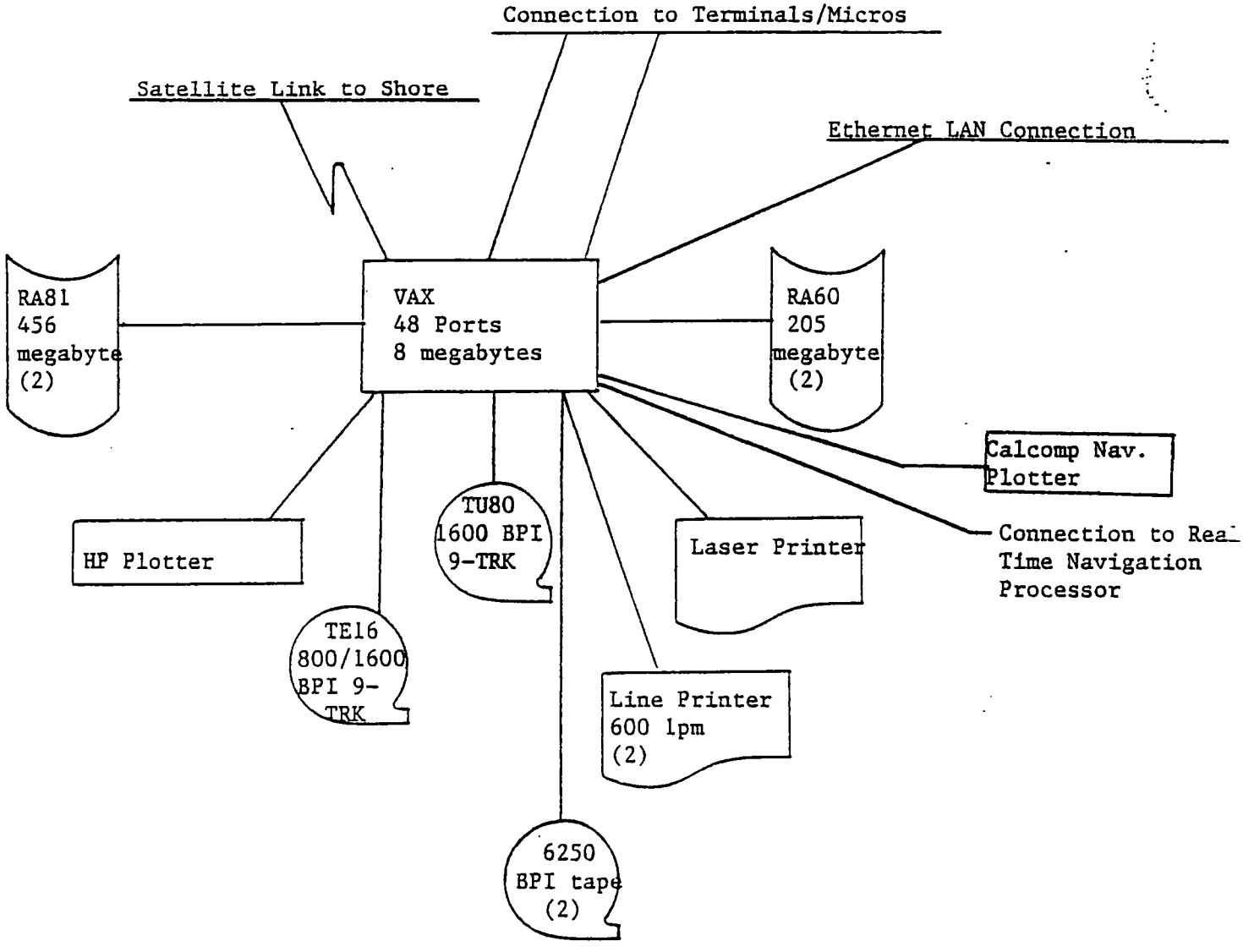


FY88 PLANNED SHOREBASED

CONFIGURATION

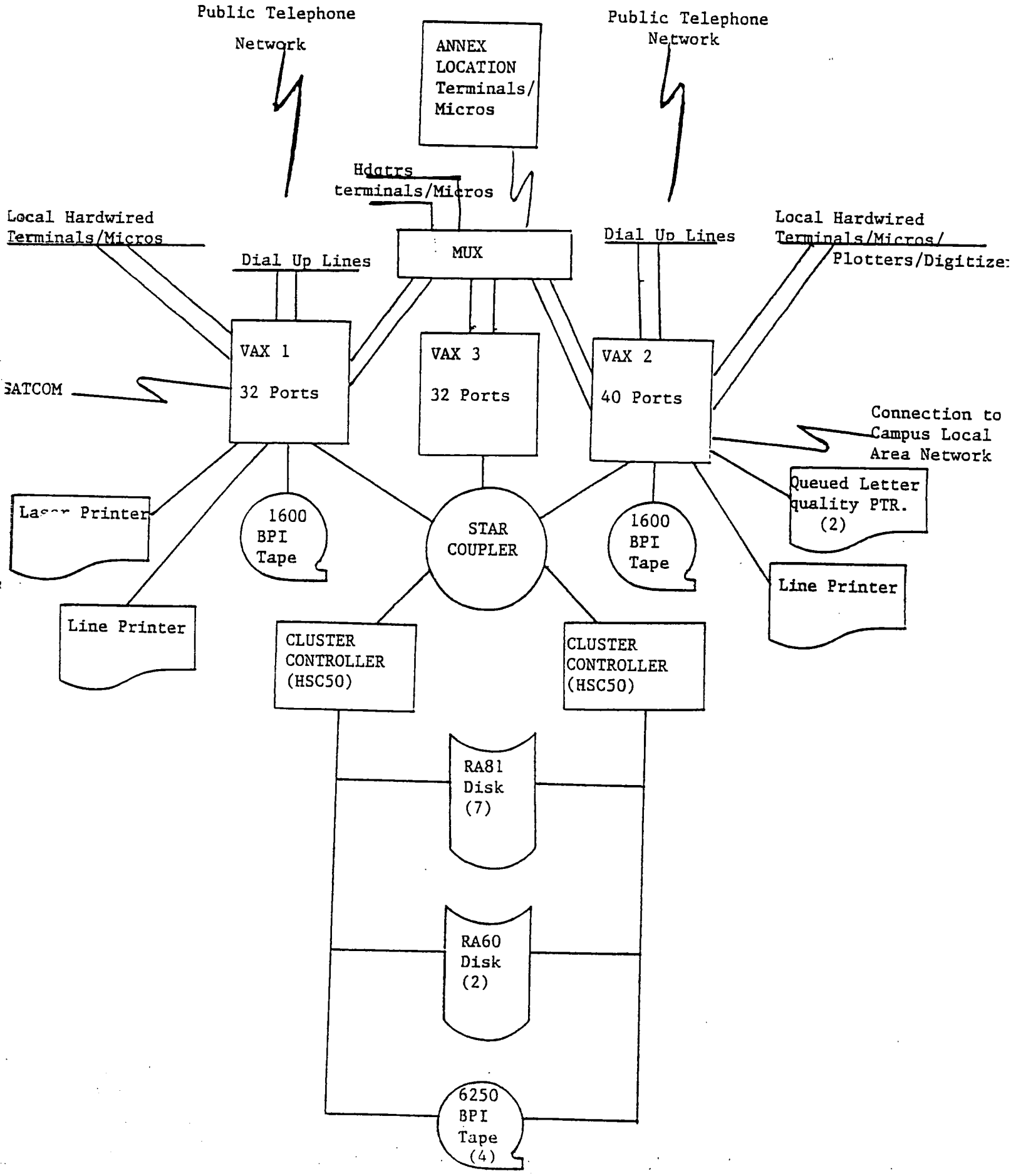


FY89 PLANNED SHIPBOARD
CONFIGURATION



FY89 PLANNED SHOREBASED

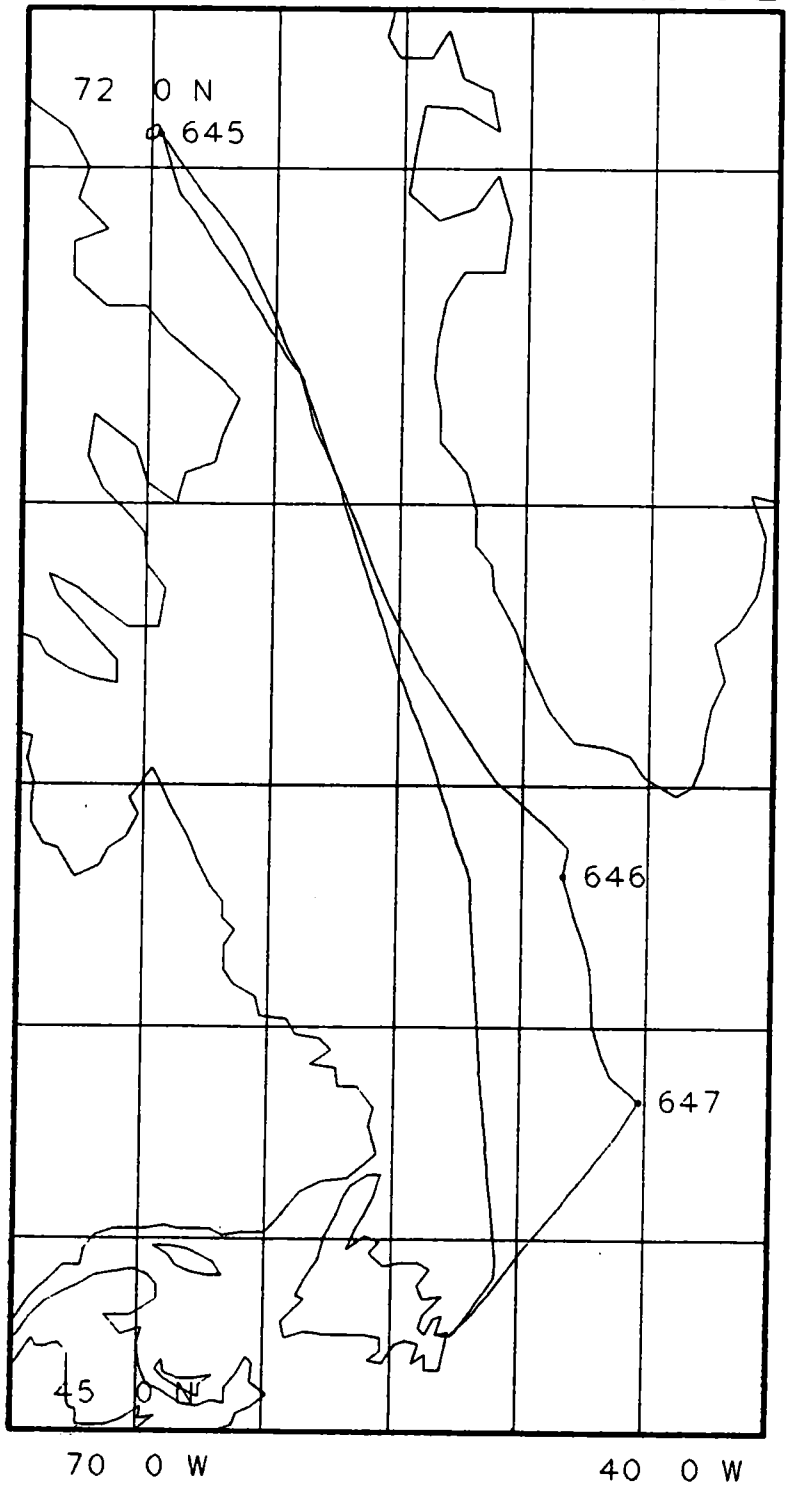
CONFIGURATION



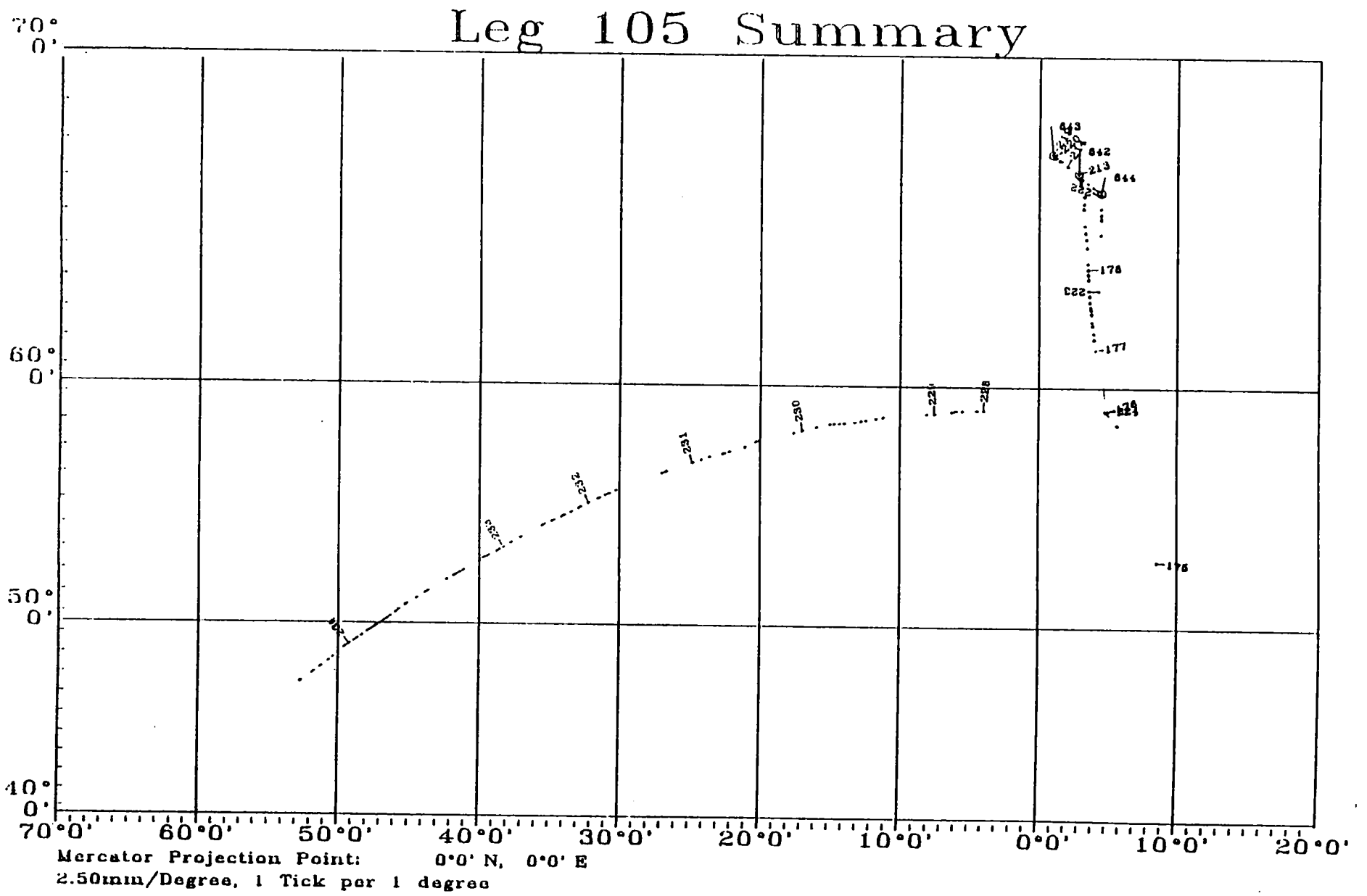
SMOOTH TRACK

OUTPUT

LEG 105 TRACK



PROPOSED REAL-TIME NAVIGATION OUTPUT

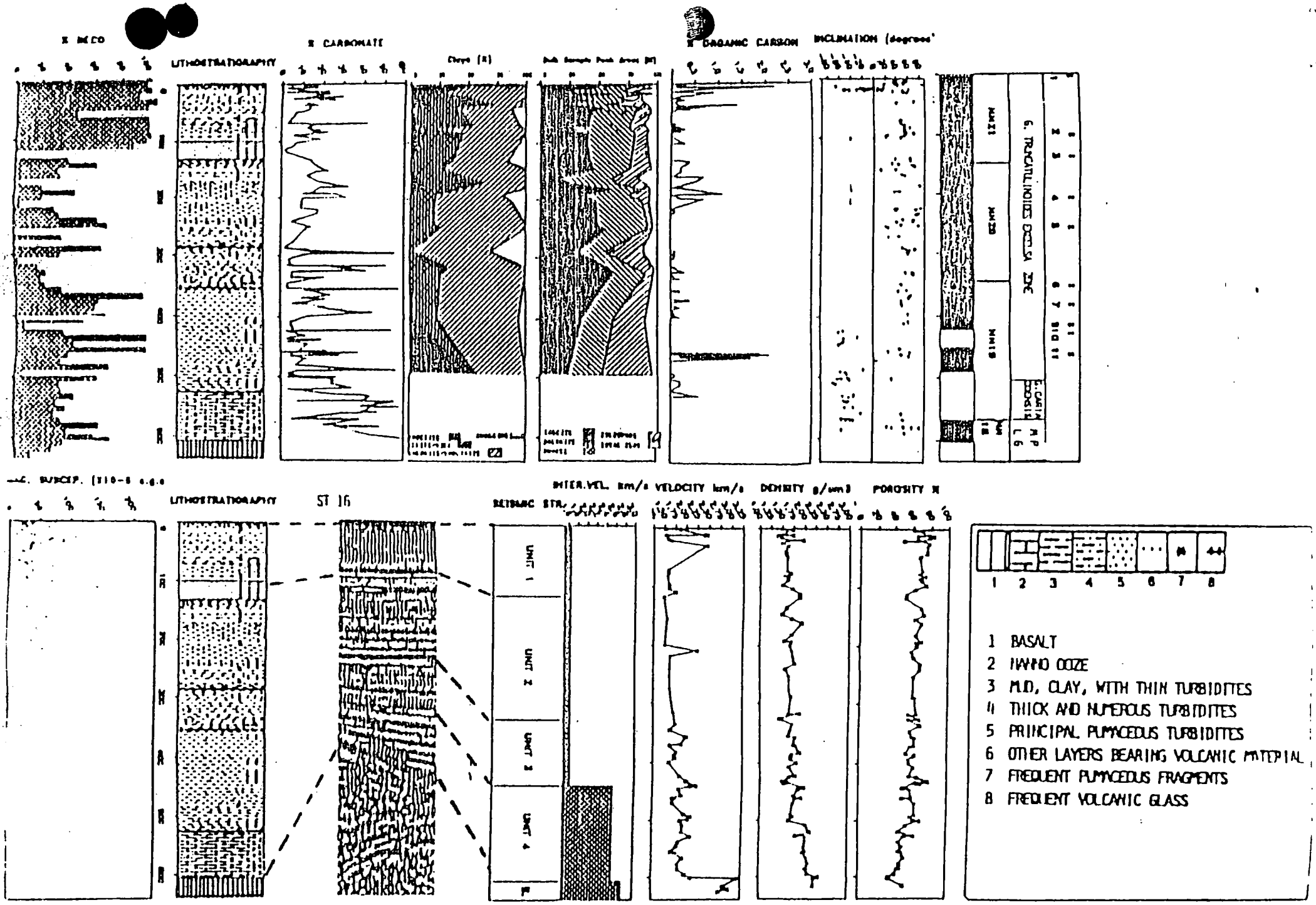


SAMPLE SHIPBOARD

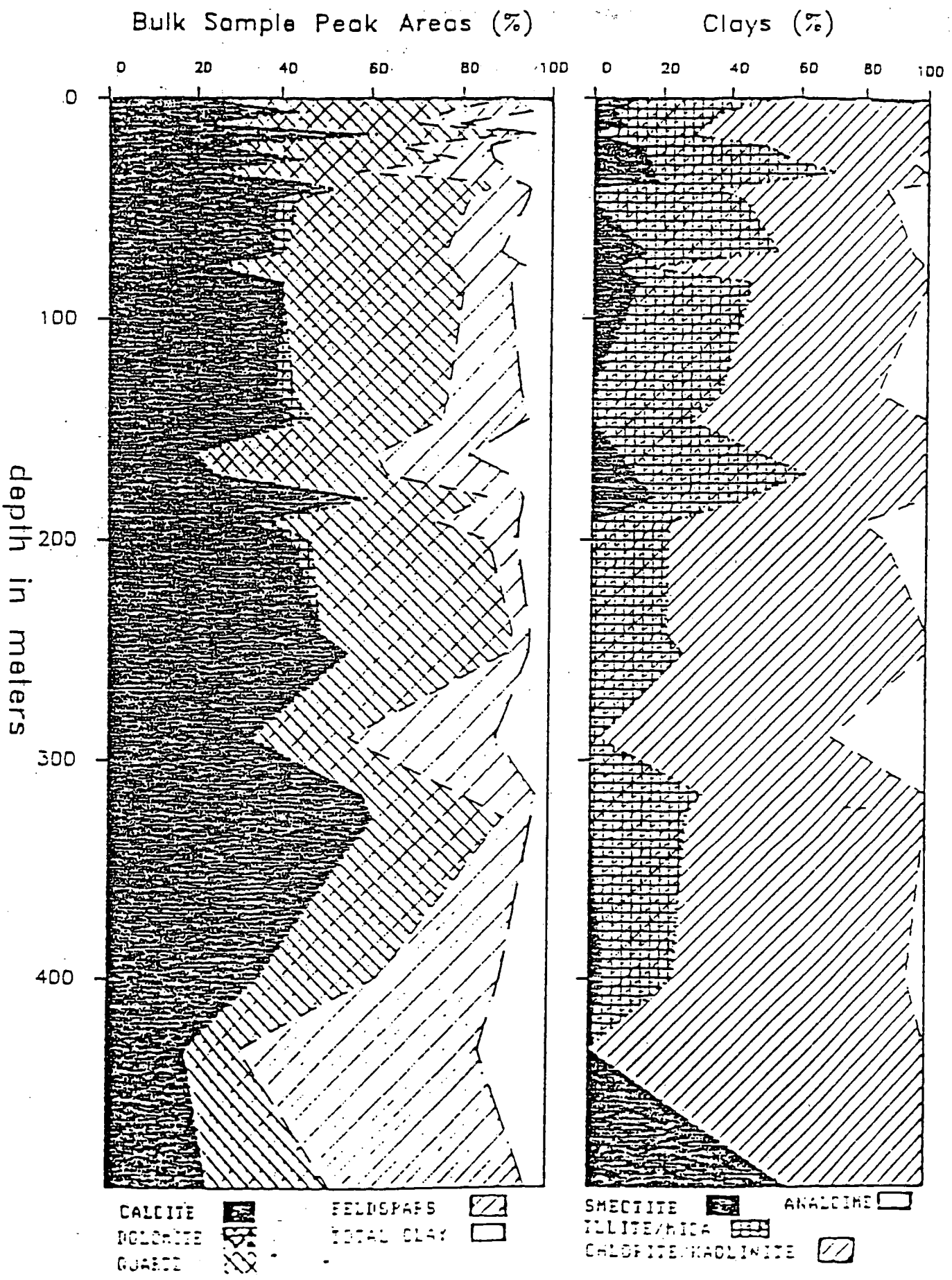
DATA PLOTS

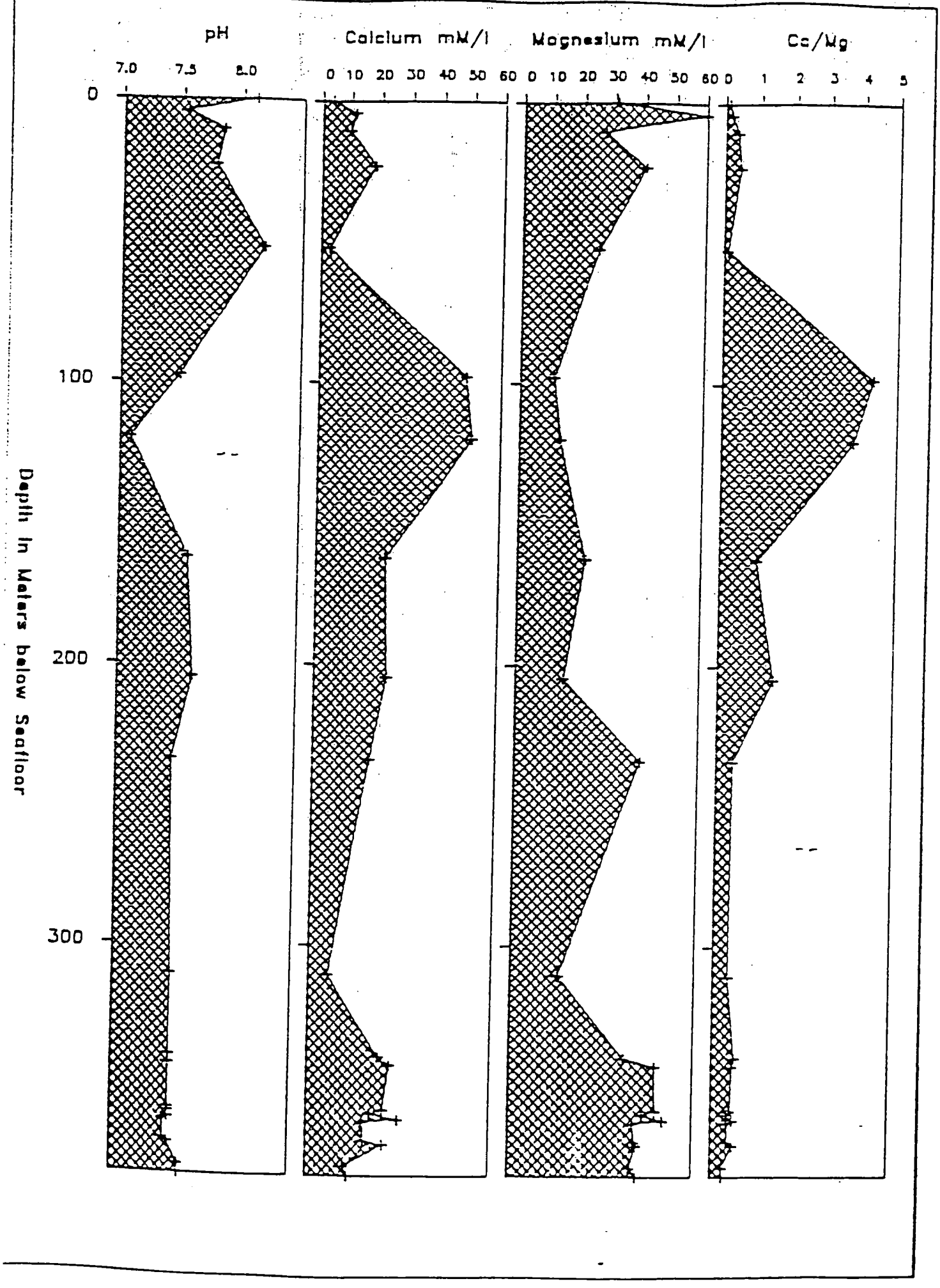
CREATED USING

PICSURE

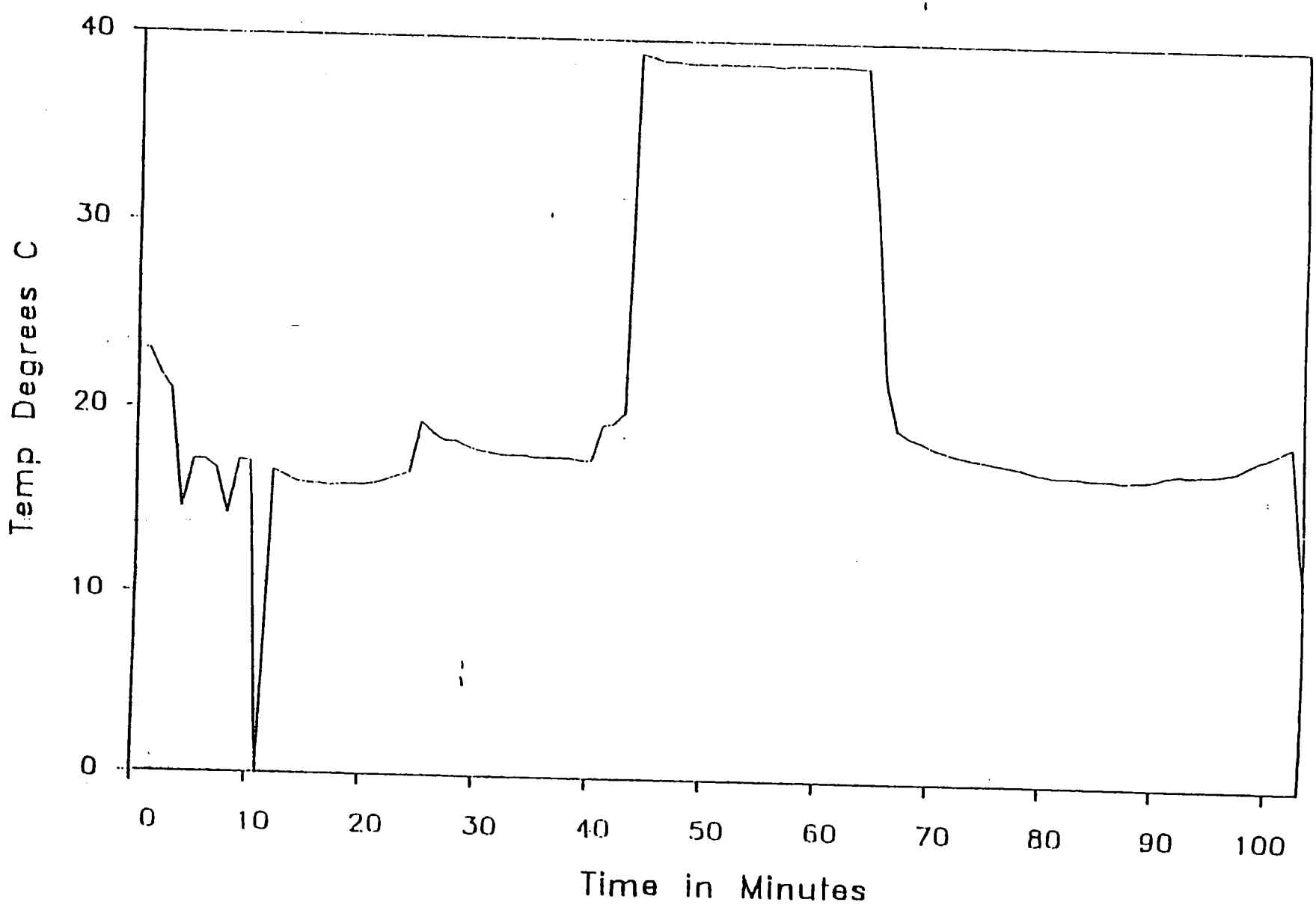


LEG 107, SITE 650: SUMMARY OF MEASUREMENTS


Bulk Sample Peak Areas (%)
Clays (%)
0
20
40
60
80
100
depth in meters
0
100
200
300
400
CALCITE
DOLOMITE
QUARTZ
FELDSPARS
TOTAL CLAY
SMECTITE
ILLITE/MICA
CHLORITE/KAOLINITE
ANALCIME


pH
7.0
7.5
8.0
Calcium mM/l
0 10 20 30 40 50 60
Magnesium mM/l
0 10 20 30 40 50 60
Ca/Mg
0 1 2 3 4 5
0
100
200
300
Depth in Meters below Seafloor

Heat Flow: 652A-20R @ 189.8 MBSF



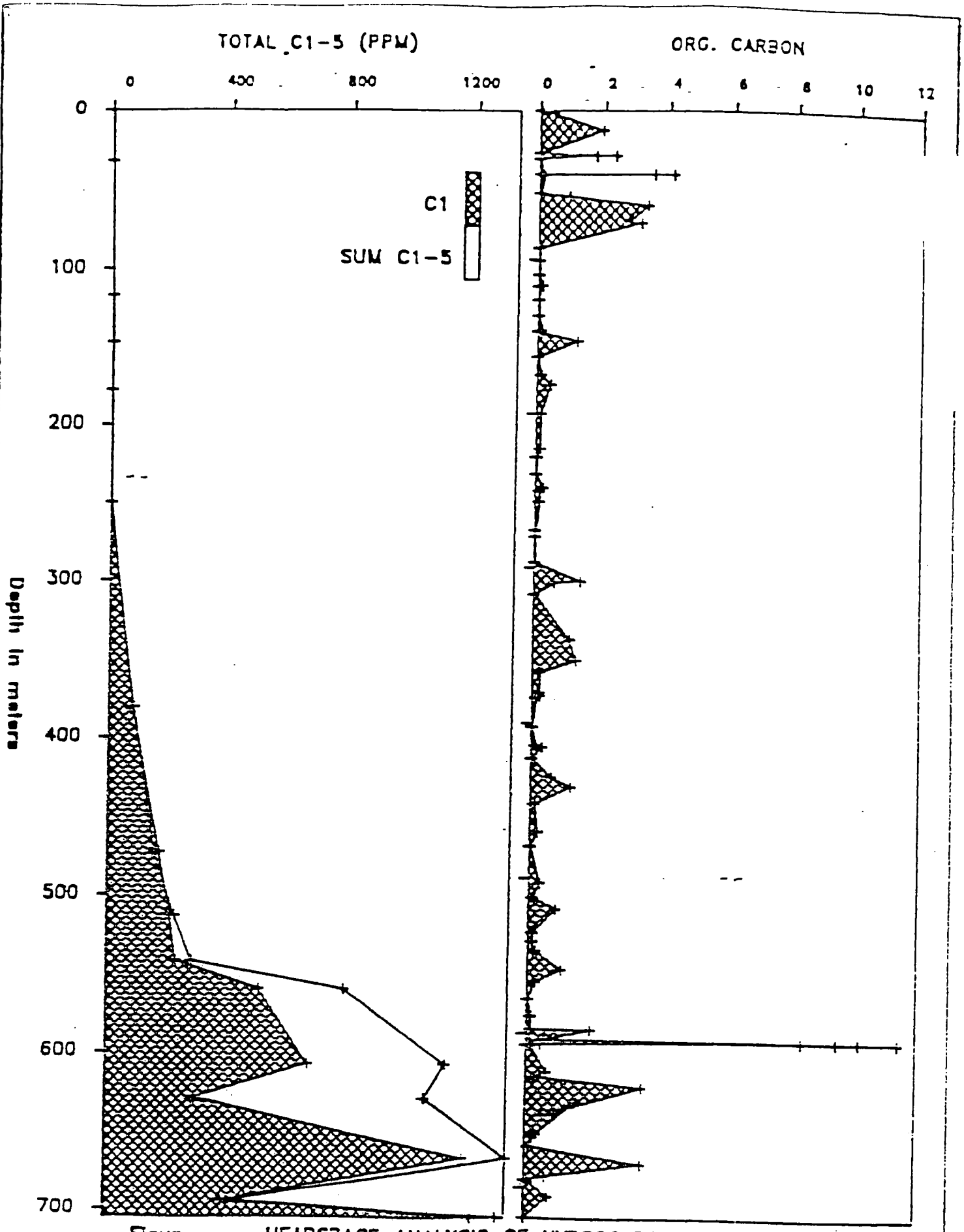


Figure . HEADSPACE ANALYSIS OF HYDROCARBONS-SITE 652

ODP TAPE LISTING

Attachment No. 7 IHP Report

Tape	Well	Unit	Top	Bottom	Tape_type	Log_1	Log_2	Log_3	Location	BPI	Comment
1	418-A	mt	5502	6299	LIS LIBRARY	LDT/CNTG/NGT	DIL/LSS/GR	DLL/GR	Bermuda Rise	1600	2 copies
2	418-A	mt	5836	5991	FIELD EDIT	DIL/LSS/GR			Bermuda Rise	1600	
3	418-A	mt	5967	6089	FIELD EDIT	DIL/LSS/GR			Bermuda Rise	1600	
4	418-A	mt	6039	6179	FIELD EDIT	DIL/LSS/GR			Bermuda Rise	1600	
5	418-A	mt	6130	6299	FIELD EDIT	DIL/LSS/GR			Bermuda Rise	1600	
6	418-A	mt	5836	5991	FIELD EDIT	SWF			Bermuda Rise	1600	2 copies
7	418-A	mt	5967	6089	FIELD EDIT	SWF			Bermuda Rise	1600	2 copies
8	418-A	mt	6039	6179	FIELD EDIT	SWF			Bermuda Rise	1600	2 copies
9	418-A	mt	6130	6299	FIELD EDIT	SWF			Bermuda Rise	1600	2 copies
10	418-A	ft	19148	19656	CSU FIELD	DIL/LSS/GR/SWF			Bermuda Rise	800	
11	418-A	ft	19604	19981	CSU FIELD	DIL/LSS/GR/SWF			Bermuda Rise	800	
12	418-A	ft	19814	20273	CSU FIELD	DIL/LSS/GR/SWF			Bermuda Rise	800	
13	418-A	ft	21129	20667	CSU FIELD	DIL/LSS/GR/SWF			Bermuda Rise	800	
14	418-A	ft	19604	20667	CSU FIELD	DLL/GR			Bermuda Rise	800	
15	418-A	ft	19604	20667	CSU FIELD	LDT/CNTG/NGT			Bermuda Rise	800	
16	626-D	ft	2785	3939	CSU FIELD	CNTG/GR			Bahamas	800	
17	626-D	ft	2785	3939	CSU FIELD	CNTG/GR			Bahamas	1600	
18	627-B	ft	4936	5156	CSU FIELD	LDT/CNTG/NGT			Bahamas	800	
19	627-B	ft	4936	5156	CSU FIELD	LDT/CNTG/NGT			Bahamas	1600	
20	634-A	ft	9895	10735	LIS LIBRARY	GST/CNTG/GR			Bahamas	1600	
21	634-A	ft	9895	10735	CSU FIELD	GST QUICKLOOK			Bahamas	800	
22	634-A	ft	9895	10735	CSU FIELD	GST QUICLOOK			Bahamas	1600	
23	634-A	ft	9797	10739	CSU FIELD	GST/CNTG/GR			Bahamas	800	
24	634-A	ft	9892	10739	CSU FIELD	GST/CNTG/GR			Bahamas	800	
25	634-A	ft	9902	10739	CSU FIELD	GST/CNTG/GR			Bahamas	800	
26	634-A	ft	9902	10739	CSU FIELD	GST/CNTG/GR			Bahamas	800	
27	634-A	ft	9971	10722	CSU FIELD	GST/CNTG/GR			Bahamas	800	
28	634-A	ft	9797	10739	CSU FIELD	GST/CNTG/GR			Bahamas	800	
29	637-A	mt	5421	5587	LIS BACKUP	DIL/LSS/GR	LDT/CNTG/NGT		Galicia Bank	1600	
30	637-A	mt	5421	5545	LIS LIBRARY	LDT/CNTG/NGT			Galicia Bank	1600	
31	637-A	mt	5421	5452	FIELD EDIT	DIL/LSS/GR			Galicia Bank	1600	
32	637-A	mt	5424	5587	FIELD EDIT	DIL/LSS/GR			Galicia Bank	1600	
33	637-A	mt	5421	5452	FIELD EDIT	SWF			Galicia Bank	1600	
34	637-A	mt	5424	5587	FIELD EDIT	SWF			Galicia Bank	1600	
35	637-A	ft	17799	18332	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	800	
36	637-A	ft	17799	18332	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	1600	2 copies
37	637-A	ft	17677	17890	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	800	
38	637-A	ft	17677	17890	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	1600	2 copies
39	637-A	ft	17677	18332	CSU FIELD	LDT/CNTG/NGT			Galicia Bank	800	
40	637-A	ft	17799	18332	SEG-Y	SWF # 1			Galicia Bank	1600	
41	637-A	ft	17677	17890	SEG-Y	SWF # 1			Galicia Bank	1600	
42	637-A	ft	17799	18332	SEG-Y	SWF # 2			Galicia Bank	1600	
43	637-A	ft	17677	17890	SEG-Y	SWF # 2			Galicia Bank	1600	
44	637-A	ft	17799	18332	SEG-Y	SWF # 3			Galicia Bank	1600	
45	637-A	ft	17677	17890	SEG-Y	SWF # 3			Galicia Bank	1600	
46	637-A	ft	17799	18332	SEG-Y	SWF # 4			Galicia Bank	1600	
47	637-A	ft	17677	17890	SEG-Y	SWF # 4			Galicia Bank	1600	
48	638-B	mt	4768	4950	LIS BACKUP	DIL/LSS/GR			Galicia Bank	1600	
49	638-B	mt	4768	4929	FIELD EDIT	DIL/LSS/GR			Galicia Bank	1600	
50	638-B	mt	4852	4950	FIELD EDIT	DIL/LSS/GR			Galicia Bank	1600	
51	638-B	mt	4768	4929	FIELD EDIT	SWF			Galicia Bank	1600	
52	638-B	mt	4852	4950	FIELD EDIT	SWF			Galicia Bank	1600	
53	638-B	ft	15644	16172	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	800	
54	638-B	ft	15644	16172	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	1600	
55	638-B	ft	15919	16241	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	800	
56	638-B	ft	15919	16241	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	1600	

ODP TAPE LISTING

Tape	Well	Unit	Top	Bottom	Tape_type	Log_1	Log_2	Log_3	Location	BPI	Comment
57	638-B	ft	15644	16173	SEG-Y	SWF # 1			Galicia Bank	1600	
58	638-B	ft	15920	16244	SEG-Y	SWF # 1			Galicia Bank	1600	
59	638-B	ft	15644	16173	SEG-Y	SWF # 2			Galicia Bank	1600	
60	638-B	ft	15920	16244	SEG-Y	SWF # 2			Galicia Bank	1600	
61	638-B	ft	15644	16173	SEG-Y	SWF # 3			Galicia Bank	1600	
62	638-B	ft	15920	16244	SEG-Y	SWF # 3			Galicia Bank	1600	
63	638-B	ft	15644	16173	SEG-Y	SWF # 4			Galicia Bank	1600	
64	638-B	ft	15920	16244	SEG-Y	SWF # 4			Galicia Bank	1600	
65	638-C	mt	4745	4961	LIS BACKUP	DIL/LSS/GR	LDT/CNTG/NGT		Galicia Bank	1600	
66	638-C	mt	4778	4927	LIS LIBRARY	LDT/CNTG/NGT			Galicia Bank	1600	
67	638-C	mt	4745	4899	FIELD EDIT	DIL/LSS/GR			Galicia Bank	1600	2 copies
68	638-C	mt	4770	4899	FIELD EDIT	DIL/LSS/GR			Galicia Bank	1600	2 copies
69	638-C	mt	4868	4961	FIELD EDIT	DIL/LSS/GR			Galicia Bank	1600	
70	638-C	mt	4745	4899	FIELD EDIT	SWF			Galicia Bank	1600	
71	638-C	mt	4770	4899	FIELD EDIT	SWF			Galicia Bank	1600	2 copies
72	638-C	mt	4868	4961	FIELD EDIT	SWF			Galicia Bank	1600	
73	638-C	ft	15568	16079	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	800	
74	638-C	ft	15568	16079	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	1600	
75	638-C	ft	15653	16077	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	800	
76	638-C	ft	15653	16077	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	1600	
77	638-C	ft	15974	16279	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	800	
78	638-C	ft	15974	16279	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	1600	
79	638-C	ft	15676	16165	CSU FIELD	LDT/CNTG/NGT			Galicia Bank	800	
80	638-C	ft	15653	16077	SEG-Y	SWF # 1			Galicia Bank	1600	
81	638-C	ft	15974	16279	SEG-Y	SWF # 1			Galicia Bank	1600	
82	638-C	ft	15653	16077	SEG-Y	SWF # 2			Galicia Bank	1600	
83	638-C	ft	15974	16279	SEG-Y	SWF # 2			Galicia Bank	1600	
84	638-C	ft	15653	16077	SEG-Y	SWF # 3			Galicia Bank	1600	
85	638-C	ft	15974	16279	SEG-Y	SWF # 3			Galicia Bank	1600	
86	638-C	ft	15653	16077	SEG-Y	SWF # 4			Galicia Bank	1600	
87	638-C	ft	15974	16279	SEG-Y	SWF # 4			Galicia Bank	1600	
88	639-D	mt	4921	5016	LIS BACKUP	DIL/LSS/GR	LDT/CNTG/NGT		Galicia Bank	1600	
89	639-D	mt	4922	5016	LIS LIBRARY	LDT/CNTG/NGT			Galicia Bank	1600	
90	639-D	mt	4921	4990	FIELD EDIT	DIL/LSS/GR			Galicia Bank	1600	2 copies
91	639-D	mt	4921	4990	FIELD EDIT	SWF			Galicia Bank	1600	
92	639-D	ft	16149	16374	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	800	
93	639-D	ft	16149	16374	CSU FIELD	DIL/LSS/GR/SWF			Galicia Bank	1600	
94	639-D	ft	16130	16464	CSU FIELD	LDT/CNTG/NGT			Galicia Bank	800	
95	639-D	ft	15923	16374	SEG-Y	SWF # 1			Galicia Bank	1600	
96	639-D	ft	15923	16374	SEG-Y	SWF # 2			Galicia Bank	1600	
97	639-D	ft	15923	16374	SEG-Y	SWF # 3			Galicia Bank	1600	
98	639-D	ft	15923	16374	SEG-Y	SWF # 4			Galicia Bank	1600	
99	641-C	mt	4779	4845	LIS LIBRARY	LDT/CNTG/NGT			Galicia Bank	1600	
100	642-D	mt	1286	1630	LIS BACKUP	DIL/LSS/GR/	LDT/CNTG/NGT		Voring Plateau	1600	
101	642-D	mt	1286	1505	LIS LIBRARY	LDT/CNTG/NGT			Voring Plateau	1600	2 copies
102	642-D	mt	1290	1630	FIELD EDIT	DIL/LSS/GR			Voring Plateau	1600	
103	642-D	mt	1347	1504	FIELD EDIT	DIL/LSS/GR			Voring Plateau	1600	
104	642-D	mt	1310	1374	FIELD EDIT	DIL/LSS/GR			Voring Plateau	1600	
105	642-D	mt	1290	1630	FIELD EDIT	SWF			Voring Plateau	1600	2 copies
106	642-D	mt	1347	1504	FIELD EDIT	SWF			Voring Plateau	1600	2 copies
107	642-D	mt	1310	1374	FIELD EDIT	SWF			Voring Plateau	1600	2 copies
108	642-D	ft	4298	4511	CSU FIELD	DIL/LSS/GR/SWF			Voring Plateau	800	
109	642-D	ft	4429	4918	CSU FIELD	DIL/LSS/GR/SWF			Voring Plateau	800	
110	642-D	ft	4587	4934	CSU FIELD	DIL/LSS/GR/SWF			Voring Plateau	800	
111	642-D	ft	4219	4938	CSU FIELD	LDT/CNTG/NGT			Voring Plateau	800	
112	642-E	mt	1632	2387	LIS BACKUP	DIL/LSS/GR	LDT/CNTG/NGT		Voring Plateau	1600	

ODP TAPE LISTING

Tape	Well	Unit	Top	Bottom	Tape_type	Log_1	Log_2	Log_3	Location	BPI	Comment
113	642-E	mt	1632	2387	LIS LIBRARY	LDT/CNTG/NGT			Voring Plateau	1600	3 copies
114	642-E	mt	1336	1549	FIELD EDIT	DIL/LSS/GR			Voring Plateau	1600	
115	642-E	mt	1531	1764	FIELD EDIT	DIL/LSS/GR			Voring Plateau	1600	
116	642-E	mt	1745	1980	FIELD EDIT	DIL/LSS/GR			Voring Plateau	1600	
117	642-E	mt	1956	2199	FIELD EDIT	DIL/LSS/GR			Voring Plateau	1600	
118	642-E	mt	2173	2388	FIELD EDIT	DIL/LSS/GR			Voring Plateau	1600	
119	642-E	mt	1336	1549	FIELD EDIT	SWF			Voring Plateau	1600	
120	642-E	mt	1531	1764	FIELD EDIT	SWF			Voring Plateau	1600	
121	642-E	mt	1745	1980	FIELD EDIT	SWF			Voring Plateau	1600	2 copies
122	642-E	mt	1956	2199	FIELD EDIT	SWF			Voring Plateau	1600	2 copies
123	642-E	mt	2175	2388	FIELD EDIT	SWF			Voring Plateau	1600	2 copies
124	642-E	ft	4383	5085	CSU FIELD	DIL/LSS/GR/SWF			Voring Plateau	800	
125	642-E	ft	5433	5788	CSU FIELD	DIL/LSS/GR/SWF			Voring Plateau	800	
126	642-E	ft	5725	6496	CSU FIELD	DIL/LSS/GR/SWF			Voring Plateau	800	
127	642-E	ft	6431	7218	CSU FIELD	DIL/LSS/GR/SWF			Voring Plateau	800	
128	642-E	ft	7129	7835	CSU FIELD	DIL/LSS/GR/SWF			Voring Plateau	800	
129	642-E	ft	5355	7846	CSU FIELD	LDT/CNTG/NGT			Voring Plateau	800	
130	645-E	ft	7209	8096	FIELD EDIT	DIL/LSS/GR			Baffin Bay	1600	
131	645-E	ft	7209	8096	FIELD EDIT	DIL/LSS/GR			Baffin Bay	800	
132	645-E	ft	7497	7776	FIELD EDIT	SWF			Baffin Bay	1600	
133	645-E	ft	7497	7776	FIELD EDIT	SWF			Baffin Bay	800	
134	645-E	ft	7615	8098	FIELD EDIT	SWF			Baffin Bay	1600	
135	645-E	ft	7615	8098	FIELD EDIT	SWF			Baffin Bay	800	
136	645-E	ft	7694	8081	FIELD EDIT	SWF			Baffin Bay	1600	
137	645-E	ft	7694	8081	FIELD EDIT	SWF			Baffin Bay	800	
138	645-E	ft	7218	7776	CSU FIELD	DIL/LSS/GR/SWF			Baffin Bay	800	
139	645-E	ft	7582	8089	CSU FIELD	DIL/LSS/GR/SWF			Baffin Bay	800	
140	645-E	ft	7582	7727	CSU FIELD	DIL/LSS/GR/SWF			Baffin Bay	800	
141	646-B	ft	11990	13782	LIS BACKUP	DIL/LSS/GR	GST/NGT/CNTG		Labrador Sea	1600	
142	646-B	ft	11990	13782	FIELD EDIT	DIL/LSS/GR			Labrador Sea	1600	
143	646-B	ft	11990	13782	FIELD EDIT	DIL/LSS/GR			Labrador Sea	800	no field tape
144	646-B	ft	11990	13782	FIELD EDIT	DIL/NGT/CNTG			Labrador Sea	800	
145	646-B	ft	11300	13782	CSU FIELD	GST/NGT/CNTG			Labrador Sea	1600	
146	646-B	ft	11783	12254	CSU FIELD	GST/NGT/CNTG			Labrador Sea	800	
147	646-B	ft	12087	13782	CSU FIELD	GST/NGT/CNTG			Labrador Sea	1600	
148	646-B	ft	12087	13782	CSU FIELD	GST/NGT/CNTG			Labrador Sea	800	
149	646-B	ft	13482	13813	FIELD EDIT	SWF			Labrador Sea	800	no field tape
150	646-B	ft	12455	12983	FIELD EDIT	SWF			Labrador Sea	800	no field tape
151	646-B	ft	11969	12451	FIELD EDIT	SWF			Labrador Sea	800	no field tape
152	646-B	ft	12983	13478	FIELD EDIT	SWF			Labrador Sea	800	no field tape
153	647-A	ft	13027	13593	LIS BACKUP	DIL/LSS/GR			Labrador Sea	1600	
154	647-A	ft	13027	13391	FIELD EDIT	DIL/LSS/GR			Labrador Sea	1600	
155	647-A	ft	13027	13391	FIELD EDIT	DIL/LSS/GR			Labrador Sea	800	no field tape
156	647-A	ft	13038	13593	FIELD EDIT	DIL/LSS/GR			Labrador Sea	1600	
157	647-A	ft	13038	13593	FIELD EDIT	DIL/LSS/GR			Labrador Sea	800	no field tape
158	647-A	ft	13017	13391	FIELD EDIT	SWF			Labrador Sea	1600	
159	647-A	ft	13017	13391	FIELD EDIT	SWF			Labrador Sea	800	no field tape
160	647-A	ft	13038	13593	FIELD EDIT	SWF			Labrador Sea	1600	
161	647-A	ft	13038	13593	FIELD EDIT	SWF			Labrador Sea	800	no field tape
162	651-A	ft	12140	12878	LIS BACKUP	DIL/LSS/GR	LDT/CNTG/NGT		Tyrrhenian Sea	1600	reprocessed NGT
163	651-A	ft	12140	12878	FIELD EDIT	DIL/LSS/GR			Tyrrhenian Sea	1600	
164	651-A	ft	12140	12655	LIS LIBRARY	LDT/CNTG/NGT			Tyrrhenian Sea	1600	reprocessed NGT
165	651-A	ft	12140	12655	FIELD EDIT	LDT/NGT/CNTG			Tyrrhenian Sea	1600	original NGT
166	651-A	ft	12140	12655	CSU FIELD	LDT/NGT/CNTG			Tyrrhenian Sea	800	reprocessed NGT
167	651-A	ft	12140	12878	CSU FIELD	DIL/LSS/GR/SWF			Tyrrhenian Sea	800	
168	651-A	ft	12141	12877	FIELD EDIT	SWF			Tyrrhenian Sea	1600	

ODP TAPE LISTING

Tape	Well	Unit	Top	Bottom	Tape_type	Log_1	Log_2	Log_3	Location	BPI	Comment
169	645-E	ft	7661	8081	CSU FIELD	DIL/LSS/GR/SWF			Labrador Sea	800	
170	652-A	ft	11621	12618	LIS BACKUP	DIL/LSS/GR	GST/NGT/CNTG		Tyrrhenian Sea	1600	reprocessed NGT
171	652-A	ft	11621	12618	FIELD EDIT	DIL/LSS/GR			Tyrrhenian Sea	1600	
172	652-A	ft	11621	12618	FIELD EDIT	DIL/LSS/GR			Tyrrhenian Sea	800	
173	652-A	ft	11621	11860	CSU FIELD	DIL/LSS/GR/SWF			Tyrrhenian Sea	800	
174	652-A	ft	11746	12605	CSU FIELD	DIL/LSS/GR/SWF			Tyrrhenian Sea	800	
175	652-A	ft	11742	12618	FIELD EDIT	SWF			Tyrrhenian Sea	1600	
176	652-A	ft	11622	11862	FIELD EDIT	SWF			Tyrrhenian Sea	1600	
177	652-A	ft	11640	12598	CSU FIELD	GST/NGT/CNTG			Tyrrhenian Sea	800	reprocessed NGT
178	652-A	ft	11841	12598	CSU FIELD	GST/NGT/CNTG			Tyrrhenian Sea	800	original NGT
179	652-A	ft	11640	12598	CSU FIELD	GST/NGT/CNTG			Tyrrhenian Sea	1600	reprocessed NGT
180	652-A	ft	11640	12295	CSU FIELD	GST/CNTG/NGT			Tyrrhenian Sea	800	original NGT
181	655-B	ft	11146	11579	FIELD EDIT	DIL/LSS/GR			Tyrrhenian Sea	1600	
182	655-B	ft	11146	11579	FIELD EDIT	DIL/LSS/GR			Tyrrhenian Sea	800	
183	655-B	ft	11146	11579	CSU FIELD	DIL/LSS/GR/SWF			Tyrrhenian Sea	800	
184	655-B	ft	11147	11579	FIELD EDIT	SWF			Tyrrhenian Sea	1600	
185	646-B	ft	13482	13813	FIELD EDIT	SWF			Labrador Sea	1600	
186	646-B	ft	12455	12983	FIELD EDIT	SWF			Labrador Sea	1600	
187	646-B	ft	11969	12451	FIELD EDIT	SWF			Labrador Sea	1600	
188	646-B	ft	12983	13478	FIELD EDIT	SWF			Labrador Sea	1600	
189	646-B	ft	12251	12087	CSU FIELD	GST/NGT/CNTG			Labrador Sea	800	
190	661-A	ft	13398	13817	FIELD EDIT	DIL/LSS/GR			East Equat. Atl	1600	
191	661-A	ft	13398	13817	FIELD EDIT	SWF			East Equat. Atl	1600	
192	661-A	ft	13398	13817	FIELD EDIT	DIL/LSS/GR			East Equat. Atl	800	no field tape
193	661-A	ft	13398	13817	FIELD EDIT	SWF			East Equat. Atl	800	no field tape
194	646-B	ft	11300	13766	FIELD EDIT	GST/NGT/CNTG			Labrador Sea	1600	reprocessed GST
195	646-B	ft	11300	13766	FIELD EDIT	GST/NGT/CNTG			Labrador Sea	800	reprocessed GST
196	641-C	mt	4779	4845	LIS LIBRARY	LDT/CNTG/NGT			Galicia Bank	1600	no field tape
197	395-A	ft	15091	16724	FIELD EDIT	DIL/LSS/GR	LDT/CNTG/NGT		Mid Atlantic Ri	1600	
198	395-A	ft	15071	16711	FIELD EDIT	DIL/LSS/GR			Mid Atlantic Ri	1600	Run #1
199	395-A	ft	15071	16711	FIELD EDIT	DIL/LSS/GR			Mid Atlantic Ri	800	no field tape
200	395-A	ft	15090	16724	FIELD EDIT	DIL/LSS/GR			Mid Atlantic Ri	1600	Run #2
201	395-A	ft	15090	16724	FIELD EDIT	DIL/LSS/GR			Mid Atlantic Ri	800	no field tape
202	395-A	ft	15091	15474	FIELD EDIT	SWF			Mid Atlantic Ri	1600	Run #2
203	395-A	ft	15359	15885	FIELD EDIT	SWF			Mid Atlantic Ri	1600	RUN #2
204	395-A	ft	15796	16322	FIELD EDIT	SWF			Mid Atlantic Ri	1600	Run #2
205	395-A	ft	16215	16725	FIELD EDIT	SWF			Mid Atlantic Ri	1600	Run #2
206	395-A	ft	15091	15474	FIELD EDIT	SWF			Mid Atlantic Ri	800	no field tape
207	395-A	ft	15359	15885	FIELD EDIT	SWF			Mid Atlantic Ri	800	no field tape
208	395-A	ft	15796	16322	FIELD EDIT	SWF			Mid Atlantic Ri	800	no field tape
209	395-A	ft	16215	16724	FIELD EDIT	SWF			Mid Atlantic Ri	800	no field tape
210	395-A	ft	14995	16750	FIELD EDIT	GST/CNTG/NGT	ACT		Mid Atlantic Ri	1600	
211	395-A	ft	14995	16750	FIELD EDIT	GST/CNTG/NGT	ACT		Mid Atlantic Ri	800	no field tape
212	395-A	ft	15091	16738	FIELD EDIT	LDT/CNTG/NGT	GPIT		Mid Atlantic Ri	1600	
213	395-A	ft	15091	16738	FIELD EDIT	LDT/CNTG/NGT	GPIT		Mid Atlantic Ri	800	no field tape
214	395-A	ft	15091	16738	FIELD EDIT	LDT/CNTG/NGT			Mid Atlantic Ri	800	no field tape
215	395-A	mt	4630	4674	BRG	MCS SWF			Mid Atlantic Ri	1600	logged down
216	395-A	mt	4674	4930	BRG	MCS SWF			Mid Atlantic Ri	1600	logged down
217	395-A	mt	4930	5100	BRG	MCS SWF			Mid Atlantic Ri	1600	logged down
218	395-A	mt	5020	5100	BRG	MCS SWF			Mid Atlantic Ri	1600	logged up
219	395-A	mt	5020	4928	BRG	MCS SWF			Mid Atlantic Ri	1600	logged up
20	395-A	mt	4850	4928	BRG	MCS SWF			Mid Atlantic Ri	1600	logged up
221	395-A	mt	4754	4838	BRG	MCS SWF			Mid Atlantic Ri	1600	logged up
222	395-A	mt	4668	4754	BRG	MCS SWF			Mid Atlantic Ri	1600	logged up
223	395-A	mt	4616	4668	BRG	MCS SWF			Mid Atlantic Ri	1600	logged up
224	418-A	mt	5830	6300	ASCII	MAG.SUSC.			Bermuda Rise	1600	

ODP TAPE LISTING

Tape	Well	Unit	Top	Bottom	Tape_type	Log_1	Log_2	Log_3	Location	BPI	Comment
25	418-A	mt	5962	6042	BRG backup	MCS SWF			Bermuda Rise	1600	logged up
226	418-A	mt	6042	6310	BRG backup	MCS SWF			Bermuda Rise	1600	logged up
227	418-A	mt	0	0	BRG backup	MCS SWF			Bermuda Rise	1600	logged down
228	418-A	mt	6042	6310	BRG orig.	MCS SWF			Bermuda Rise	1600	logged up
229	418-A	mt	5962	6042	BRG orig.	MCS SWF			Bermuda Rise	1600	logged up
230	418-A	mt	6000	6280	BRG ORIG.	MCS SWF			Bermuda Rise	1600	logged down
231	418-A	mt	5510	5926	BRG orig.	MCS SWF			Bermuda Rise	1600	
232	638-B	mt	0	0	BRG	MCS SWF			Galicia Bank	1600	logged down
233	638-B	mt	0	0	BRG	MCS SWF			Galicia Bank	1600	logged up
234	638-B	mt	0	0	BRG	MCS SWF			Galicia Bank	1600	filtered
235	639-D	mt	0	0	BRG	MCS SWF			Galicia Bank	1600	logged down
236	639-D	mt	0	0	BRG	MCS SWF			Galicia Bank	1600	logged up

TYPE OF TAPES LISTED IN THE DATABASE Attachment No. 7 (continued)

CSU FIELD = original field tape created in the CSU on the ship. If it is a sonic-resistivity-gamma ray tape it includes sonic waveforms. There are no DIL/LSS/GR/SWF tapes available for holes 646-B and 647-A.

FIELD EDIT = tape obtained by splitting the original field tape. If it is a sonic-resistivity-gamma ray tape sonic waveforms have been stripped off the tape and loaded on a different tape.

LIS LIBRARY = edited version of the original tape performed at Schlumberger. If it is a sonic-resistivity-gamma ray tape it does not include sonic waveforms.

LIS BACKUP = tape created at L-DGO by merging all of the edit or library tapes. Sonic waveforms are not included.

SEG-Y = sonic waveforms only. Available for holes: 637-A, 638-B, 638-C, 639-D.

FORM FOR REQUEST OF ODP LOGS AND/OR TAPES

Attachment No. 7 (continued)

ODP LEG .....

SITE .....

HOLE .....

Please type X on the selected logs

TOOL COMBINATION (1)	PLAYBACK SCALE 1:200	1:500	TAPE FORMAT LIS	ANSI	L-DGO	TAPE DENSITY 800	1600
DIL-LSS-GR	—	—	—	—		—	—
LDT-CNTG	—	—	—	—		—	—
NGT	—	—	—	—		—	—
GST (2)	—	—	—	—		—	—
ACT	—	—	—	—		—	—
SONIC WAVEFORMS (3)	—	—	—		—		—
MCS (3)	—	—			—		—
BHTV (videotape)	—						
BHTV (playback)	—						

(1) the full suite of logs is not available for each site
(2) elements and ratios
(3) a guide to reading L-DGO format is provided with the tape

NAME (please type) .....

INSTITUTION .....

STREET ADDRESS .....

CITY .....STATE ..... ZIP CODE .....

PHONE (...) .....

SIGNATURE .....

DATE .....

Attachment No. 8 IHP Report

October 15, 1985

Dr. D. E. Appleman
Dept. of Mineral Sciences
Smithonian Institution
Washington, DC 20560

Dear Dr. Appleman:

During a workshop on geochemistry convened by ODP here in College Station (October 10 & 11, 1985) a change in sampling schemes onboard JOIDES RESOLUTION was recommended by the participants to combine geochemical sampling of gas, interstitial waters, and whole-round samples for shorebased organic geochemistry research.

This revision, if accepted by IHP and PCOM, will permit extensive research on diagenesis and catagenesis of organic matter in sediments, monitoring and integrating changes in organic matter composition, benthic consumption, and organic/ inorganic interaction in the sedimentary column. This revised scheme will also improve hydrocarbon monitoring and aquisition of a data base for gas analyses by headspace techniques required for ship safety.

Russ Merrill informed the geochemistry workshop participants that this proposed scheme should be submitted to IHP for peer review before submission to PCOM for decision. We leave to your discretion the selection of reviewers, but suggest you include people involved with both geochemistry and ODP. Possible candidates are: Dr. James Brooks (Texas A&M University), Dr. M. Kastner (PCOM), Dr. R.E. McDuff (PCOM), Dr. B. Simoneit (former chairman of the Organic Geochemistry Panel, DSDP), and Dr. J. Whelan (Woods Hole Oceanographic Institution).

We consider it desireable to implement this change in sampling procedure for Leg 108. We recognize also that only PCOM can recommend such a change in procedure, and Russ Merrill suggested that such a proposal should come from IHP. I have also copied it for the chairman of SOHP, Mike Arthur, representing the panel most thematically related. Although time remaining until Leg 108 is rather short, we hope that PCOM can make such a decision during its next meeting in January.

Oc ling Program
Tex..M University
College Station, TX 77843-3469
(409) 845-2673

Appended please find the proposed change in sampling scheme with rationale and explanations, the minutes of the workshop, and a list of workshop participants.

Yours sincerely,

Kay-Christian Emeis
ODP Staff Scientist

Enclosures: Proposal
Workshop minutes
List of workshop participants

pc: Mike Arthur
George Claypool
Lou Garrison
Joris Gieskes
Rob Kidd
Keith Kvenvolden
Russ Merrill
Phil Meyers

October 15, 1985

TO: Dr. D.E. Appleman, Chairman Information Handling Panel

FROM: Dr. Kay- Christian Emeis, ODP Staff Scientist
on behalf of ODP Geochemistry Workshop participants

SUBJECT: Sampling for hydrocarbon monitoring, interstitial waters, and organic geochemistry onboard JOIDES RESOLUTION

I. Introduction

During a workshop convened by ODP Science Operations on October 10 & 11, 1985, participating scientists designed a possible new geochemistry sampling scheme, which combines shipboard organic geochemical work, sampling and analyses of interstitial waters, hydrocarbon monitoring, and sampling of whole-round samples for shorebased organic geochemistry studies.

A revision of currently employed modes of sampling was advised by the reports of Gieskes & Peretsman (Leg 102) and Kvenvolden & McDonald (Leg 104), prepared at the request of Science Operations on the interstitial water program and the organic geochemistry program onboard JOIDES RESOLUTION, respectively.

With the addition of a Hewlett Packard Headspace Sampler to the Natural Gas Analyzer and the resulting inclusion of sediment samples in the hydrocarbon monitoring program, the scope of scientific and safety oriented work in the shipboard Chemistry Laboratory has broadened significantly.

Ideally, geochemical parameters measured routinely onboard ship should include:

- Total carbon, carbonate carbon (organic carbon by difference), measured with the Coulometrics CO_2 Coulometer;
- Amount of volatile hydrocarbons, amount of hydrocarbons released from thermal cracking of kerogen, temperature of maxium release of hydrocarbon from kerogen, and total organic carbon (TOC) by Rock Eval pyrolysis;
- Composition of gas in gas bubbles and in sediment/porewater by vacutainer and headspace sampling (C_1-C_{6+}, CO_2, O_2, N_2);
- Dissolved organic and inorganic carbon in pore waters measured with the TOC module attached to the Coulometer;
- Concentrations of Ca^{+2}, Mg^{+2}, SO_4^{2-}, K^+ in pore waters by ion chromatography;
- Concentration of nitrate, ammonia, silica, and Fe^{2+} in pore

waters by photometry;

- Chloride concentration, salinity, alkalinity and pH of pore waters.

To maximize the value of these analyses, they should be made on a single sample or series of adjacent samples.

This proposed sampling scheme is considered to be the minimum required for meaningful geochemical investigation of sediment geochemistry. Shipboard scientists of a particular leg may wish to take additional samples after approval by Co-Chief Scientists and ODP.

II. Proposed Sampling Scheme

Because many of the significant epigenetic/diagenetic changes occur in the topmost 100-150m of the sediment column, sampling density to cover this interval of intense geochemical processes ought to be incrased in the uppermost cores of a hole.

Combining the sampling efforts, and analyzing adjacent samples of gas, interstitial water, and particulate organic matter will provide an extraordinary data base for geochemical investigation and further geochemical research onshore.

Maximum information at minimum disruption of sedimentary sequences can be achieved, with the following proposed routine sampling procedure (see Figure 1):

- 10 cm of whole-round sediment taken from Section 3 or 4 of Core 1 for interstitial water (5 cm) and shipboard headspace gas analyses (1 to 5 cm, depending on method);

- 10 to 20 cm of work half taken from Core 2 for sampling of interstitial water and gas;

- 30 to 35 cm of whole-round taken from Core 3 for shorebased organic geochemistry (25 cm, now 30 cm), interstitial water (5cm) and gas analyses;

- 10 to 20 cm of work half taken from Cores 4 and 5 for interstitial water and gas analyses;

- 30 to 35 cm of whole-round taken from Core 6 for shorebased organic geochemistry, interstitial water and gas analyses;

- 30 to 35 cm of whole-round taken from Cores 9, 12, 15, 18, etc. to Total Depth for shorebased organic geochemistry, interstitial water and gas analyses.

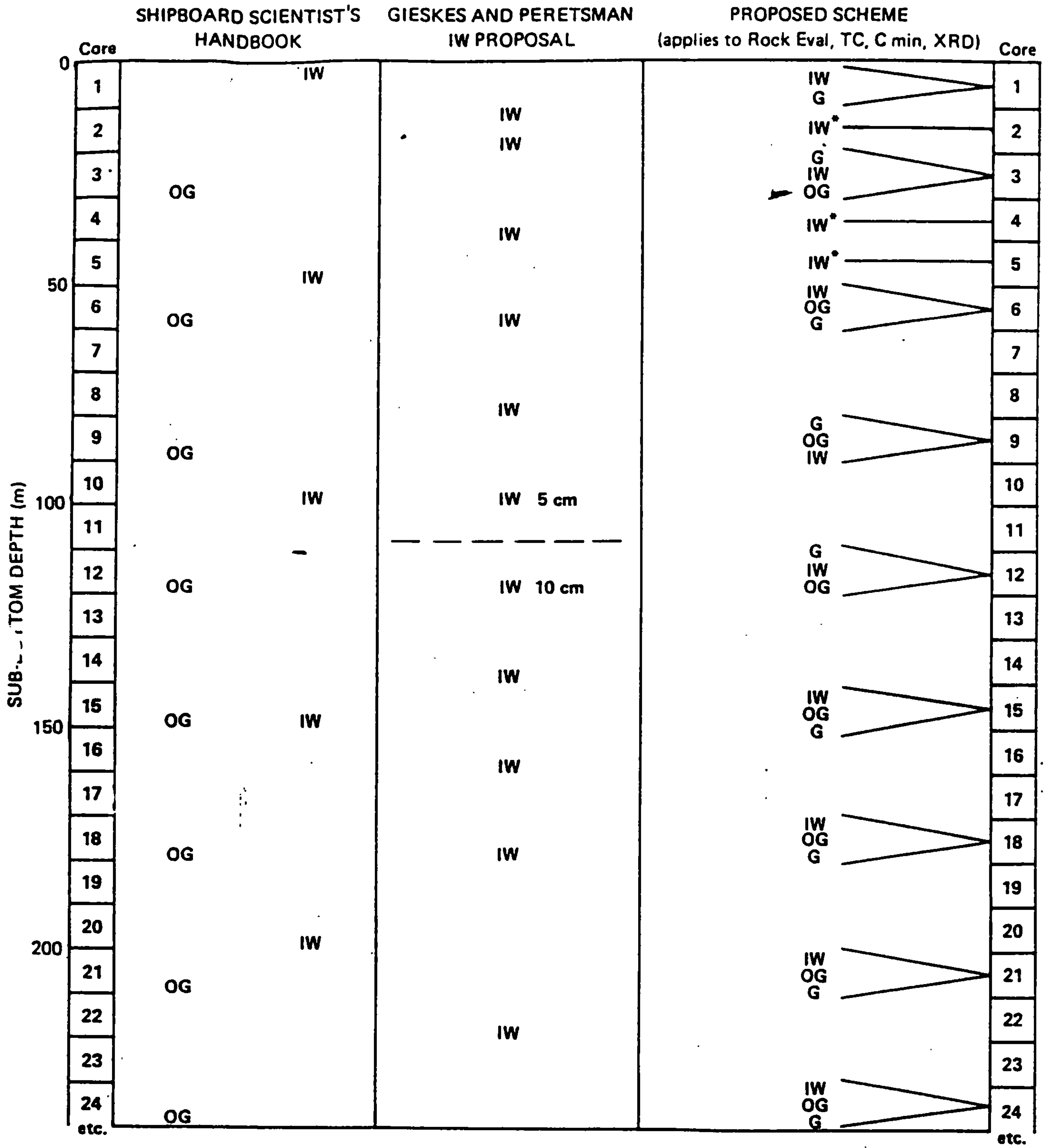
Note: Interstitial water subsamples will be stored for shorebased research, gas subsamples can be stored in vacutainers for shorebased research.

Participants of the workshop agreed that by adopting this revised sampling policy two goals are achieved:

a) A very systematic set of data describing geochemical processes in the sediment is provided for use by the scientific community interested in geochemical processes, without significantly - if at all - increasing the overall sample requirements from previous DSDP/ODP sample requirements, and

b) A standardized hydrocarbon monitoring program is incorporated in the scientific program, providing vital information for safety considerations.

Participants of the workshop propose that IHP evaluate this change in sampling onboard the JOIDES RESOLUTION and submit it to PCOM for decision.



IW* = SHIPBOARD HALF OF THE WORKING HALF
IW/5cm = LENGTH OF REQUIRED WHOLE-ROUND CORE
GAS/5cm =
OG/25cm

OG = Frozen Organic Geochemistry Sample
IW = Interstitial Water Sample