JOIDES Planning Committee

Approved Minutes

August 19-22 1996
Townsville, Australia

DRAFT PCOM MINUTES

TOWNSVILLE, AUSTRALIA

AUGUST 19 - 22 1996

PCOM AUGUST 1996 - PARTICIPANT LIST

Planning Committee - PCOM

K Brown	University of California, San Diego, Scripps Institution of Oceanography
R M Carter	James Cook University, Australia, Australia- Canada Consortium
S Humphris	Woods Hole Oceanographic Institution
H P Johnson	School of Ocean Sciences, University of Washington
H Kudrass	Bundesanstalt für Geowissenschaften und Rohstoffe, Germany
R Larson	University of Rhode Island, Graduate School of Oceanography
J McKenzie	ETH, Zurich, ESF Consortium
C Mével	Laboratoire de Pétrologie, Université Pierre et Marie Curie, Paris
A Mix	Oregon State University, College of Oceanography
G Moore	University of Hawaii, School of Ocean and Earth Science and Technology
G Mountain	Columbia University, Lamont-Doherty Earth Observatory
J Natland	University of Miami, Rosenstiel School of Marine and Atmospheric Sciences
J Pearce (Chairman)	University of Durham, United Kingdom
W W Sager	Texas A&M University, College of Geosciences
T Shipley	University of Texas at Austin, Institute for Geophysics
K Suyehiro	Ocean Research Institute, Japan

Liaisons

D Falvey	Joint Oceanographic Institutions, Inc.
T Francis	Science Operator (ODP-TAMU)
D Goldberg	Wireline Logging Services (ODP-LDEO)
B Malfait	National Science Foundation

Guests and Observers

P Barrett	Victoria University of Wellington, New Zealand
A Dziewonski	Harvard University
G Eberli	Co-Chief Scientist Leg 166, University of Miami
M Lyle	Co-Chief Scientist Leg 167, Boise State University
K Fujioka	JAMSTEC
M Mutti	ETH Zurich
T Tanaka	JAMSTEC

JOIDES Office

K Ellins	Executive Assistant and US Liaison
C Jacobs	Executive Assistant and Science Co-ordinator

JOIDES Planning Committee, August 1996 Motions

PCOM Consensus 96-2-1

PCOM approves the agenda for the meeting.

Unanimous (1 Absent)

PCOM Motion 96-2-2

Subject to the changes outlined above, PCOM approves the minutes of the last meeting at Aix-en-Provence as a true record.

Unanimous (1 Absent)

PCOM Motion 96-2-3

PCOM recommends to EXCOM the proposed new advisory structure with wording modified from the version of July 24, 1996 (attached). Under JOIDES Service Panels, the mandate for the new Scientific Measurements Panel will be refined by a sub-committee formed of the present chairs of IHP, DMP, and SMP, plus the following PCOM members: Brown (SMP liaison), Moore (DMP liaison), Suyehiro (Japan), Humphris (PCOM chair-elect) and Sager (IHP liaison and chair of sub-committee). This group shall meet at College Station in November 1996. Any revisions to the mandate will be approved by PCOM through e-mail review.

Proposed: Natland, Seconded: Brown *16 For, 0 Against*

PCOM Motion 96-2-4

PCOM requests that EXCOM approve the proposed new JOIDES advisory structure before the December PCOM meeting.

Proposed: Natland, Seconded: Larson *14 For, 2 Absent*

PCOM Motion 96-2-5

PCOM recommends that EXCOM approve the attached implementation timetable for the new JOIDES advisory structure, modified slightly from the version of July 24, 1996. The principal revision is that an interim joint SSEP, comprised of two members each from the current thematic panels, shall meet in January, 1997 to initiate proposal mail review.

Proposed: Natland, Seconded: Moore *14 For, 2 Absent*

PCOM Motion 96-2-6

PCOM directs each thematic panel to recommend four of its members to serve on an interim Scientific Steering and Evaluation Committee to meet once, in January, 1997. The panel is to specify which of the proposals received and current as of January 1, 1997, should be sent out for mail reviews, based on guidelines which PCOM will establish at its meeting in December, 1996. The reviews need to be completed in time for the initial meeting of the new Interior and Environment SSEPs in May 1997.

Proposed: Natland, Seconded: Sager *16 For, 0 Against*

PCOM Consensus 96-2-7

PCOM expresses its enthusiasm for industrial company consortium plans to design and build a deep "riserless" drilling system that could provide pressure control and return flow for a deep hole drilled below at least 4 km water depth. PCOM asks JOI to continue to seek ways and means by which ODP interests could join at least the feasibility phase of this consortium, so that we might consider incorporating such a system into future ODP drilling plans.

PCOM Motion 96-2-8

The contents of the FY98 Prospectus and initial long-term Planning Prospectus to be considered for Thematic Panel ranking shall include the following proposals and programs:

79 Somali Basin	367 GAB Cenozoic Carbonates
431 W Pacific Seismic Network	441 SW Pacific Gateway
445 Nankai Trough	447 Woodlark Basin
450 Taiwan Arc	451 Tonga Forearc
457 Kerguelen LIP	464 Southern Ocean Paleoceanography
472 Izu-Mariana	485 Australia-Antarctic Southern Gateway

Antarctic DPG 1, 2, 3

Additional programs may be considered by the panels at their discretion. A DCS/LWD Engineering Leg is also to be considered by PCOM for scheduling. The panels and TEDCOM are asked to comment on this proposal, which is included for information in the prospectus.

Proposed: Natland, Seconded: Sager *12 For, 0 Against, 4 Abstentions*

PCOM Motion 96-2-9

PCOM reaffirms its intent in PCOM motion 96-1-13 to continue for the immediate future to publish the basic information of ODP in both text (hard copy) and electronic formats in order to archive and display this information in the most certain and visible manners available to us at present. However, PCOM also agrees with the general philosophy that publication technology is moving towards universally compatible electronic formats.

Publication of the basic information in this format in an *Initial Reports* volume will consist of the site summaries, operations reports, site chapters, one scientific overview authored by the co-chiefs, and a guide to electronic usage. Other items specified in 96-1-13 for electronic publication, section 3 B (e.g. core descriptions, VCDs, etc.) will remain in electronic-only format and will be published 12 to 18 months post-cruise.

PCOM acknowledges the need for additional cost savings over the original form of motion 96-1-13 and therefore propose that the *Scientific Results* volume consisting of scientific papers, texts of data reports, and abstracts of papers published outside of ODP, be published in electronic format only, starting with Leg 169.

Electronic publication of the *Scientific Results* volume should be 48 months post-cruise. The publication of the *Initial Reports* volume, 12 to 18 months post-cruise, in text form will alleviate the need for an initial core description volume as described in 96-1-13, section 5, and this will achieve further cost savings.

ODP must continue to re-evaluate its publication options as technology and scientific community attitudes evolve, but should continue to publish the *Initial Reports* volume in both text and electronic formats for the immediate future. The issue of moving to

electronic-only publication of the *Initial Reports* volumes should be continuously reviewed by the JOI Publications Steering Committee and SCICOM.

Proposed: Larson, Seconded: McKenzie *8 For, 1 Against, 7 Abstentions*

PCOM Motion by Acclamation

PCOM expresses its thanks to Bob Carter, Susan Cook and Rachel Grieve for hosting PCOM in Townsville and the field trips in Cairns. The Townsville venue was comfortable and efficient for the conduct of the meeting. The field trip before and during the meeting allowed us intimate familiarity with things uniquely Australian, ranging from the Great Barrier Reef to Koala bears.

We return home across the equator with fond memories of friendly Australians, and in our best Australian accents, say "good bye" and "good on yer, mates".

PCOM Motion by Acclamation

PCOM thanks Henry Dick for his years of service on PCOM, and especially notes his contributions to long-term planning, his efforts to refine ODP publications, and his attempts to convince us that the answer to all important scientific problems is "735B". We wish him luck on upcoming Leg 176 and anticipate his continued contributions to ODP in the future.

PCOM Motion by Acclamation

PCOM, on behalf of the JOIDES Office and the entire ODP community, thanks Julian Pearce for stepping in as interim PCOM Chair, handling a difficult transition at a time of unprecedented change with skill and grace. We wish him luck, and grant him a return to normal. We look forward to his future contributions to ODP.

PCOM Motion by Acclamation

PCOM thanks Kathy Ellins, Colin Jacobs, and Julie Harris of the JOIDES office for their service to the JOIDES community over the past two years. The skill with which they have carried out their responsibilities under Rob Kidd for the first time from a base outside the US and variously under trying, complicated, and even tragic circumstances cannot be understated. Rob always praised the insight and intuition of his staff, and we can only add to that our appreciation of their devotion to him and the JOIDES Planning process and their consistent helpfulness and hard work during all the meetings and in between. Sadly, we cannot direct this appreciation to Rob in person, but we can note that during the past two years, the cause of scientific ocean drilling has been greatly advanced, and its future more nearly secured, under his skilful leadership. To those ends, the staff of the JOIDES Office has contributed immeasurably. To Kathy, Colin, and Julie, our sincere thanks. Godspeed and all the best in the years ahead.

JOIDES Planning Committee Draft Minutes

Monday 19th August 1996 *10:00 am*

A. WELCOME AND INTRODUCTION

1) INTRODUCTION OF PCOM MEMBERS, LIAISONS, AND GUESTS.

Pearce welcomed all attendees to the meeting. Suyehiro had sent apologies and would be joining the meeting on Tuesday 20th.

Pearce was chairing the meeting following the death of Rob Kidd. Jim Natland will give a tribute to Rob Kidd and Tim Francis will giving a tribute to Lou Garrison.

Natland presented the tribute to Rob Kidd, showing some slides of Rob and past colleagues.

Tribute to Rob Kidd

James H Natland

On June 9th, or a day or so later, we were each reminded of the contingency of life. We are all used to vaulting across continents and oceans to deal with "Long-Range Plans" and "Implementation Strategies", preparing for a future that each of us expects to see. But the truth is, we are but bubbles, and life can end, as bubbles burst, in an instant.

Our friend Rob Kidd, the friend of each one of us, knew this well. I want to give you a few impressions of how I think he dealt with it.

The first impression, one we all saw, was the presence of his family in his travels to our meetings. He made light of this, calling them his "minders". They made sure he got his rest and took his pills. But what was really going on was that he delighted in their company, and he knew that if his time might be limited, that time needed to be shared with them, no matter how busy he was, or how far he travelled. So they came, to Makuhari, to La Jolla, and the last time I saw Rob, in May, to Woods Hole. With him then was his son Tomos, and we happened to meet at the bus terminal in Boston after they had spent the day sightseeing. Although we talked - for almost two hours on the bus - about the workshop we were going to attend, and the reaction to all the doings at the meeting in Aix - Rob also wanted to know what might be possible for him to do with Tomos - to go to Nantucket, to see Plymouth Plantation - while they were together in this place. Rob loved his family, and they were "one".

My next impression is from the meeting in La Jolla. Rob spent a post-doctoral appointment at the Deep Sea Drilling Project in 1972, and participated on Leg 23 in the Indian Ocean. He and I were old DSDP hands - we never quite sorted out which was the older - and at each of our meetings we usually found some time to reminisce about those days. He once recalled to me being in a group with the staff scientists being called together by Terry Edgar, then chief scientist. They gathered in a restaurant in La Jolla Shores called Rhinelander. This is now the upscale Italian restaurant where many of us dined, in walking distance from Sea Lodge, where we had our December meeting. At the meeting then, Terry Edgar asked the group to help him decide where precisely Glomar Challenger, then at sea, should drill next. Amid steins of beer, profiler records were rolled out on the small tables, and sites or alternate sites selected, which information then would be 'telexed' to the ship the following day. Rob never ceased to be amazed that so major a Program could be managed so successfully in such a way, and that he, a post-doc, should ever have been consulted about those sorts of decisions.

As I mentioned, Rob participated on Leg 23 in the Indian Ocean. At the end of our meeting in December, he and Rosalie asked me to tag along for a dinner party organized by some people from DSDP, and from Leg 23, whom we both knew. Some of them I hadn't seen in years. Rob and Rosalie obviously made a point of keeping up with these very old friends even as they moved in very different directions. When someone at the party asked what brought him to La Jolla, he almost sheepishly admitted to being chair of the PCOM, a confession which I'd say elicited something between amusement and mock horror in his audience. In any case, Rob had a very genuine touch with everyone he knew; he was able to slip into the terms of old friendships in a totally fresh spirit, as if the time apart had been only days or weeks rather than years. On this evening, he divested himself completely of all the activity of our meeting over five intense days, and simply immersed himself in the pleasure of seeing old friends. The ability to do that speaks eloquently of the priorities, and the worth, of this gentle man.

My final impression of Rob for these remarks is of the special meeting we had in Cardiff to deal with resuscitating the Long-Range Plan. This is a scientific impression, but it also bears on the qualities of leadership which now seem to be of at least some theoretical concern in this Program. Trying to pull together a polyglot document like the Long-Range Plan, which deals with so many aspects of our science, is not a job to be managed by a specialist. We all knew that the language of the document had to be at some not-simplistic, but still very straightforward level that more than just an inside group could understand. But since we were all scientists, it still had to be precise. So virtually each and every science issue had to be discussed and honed to the point where we as a group, at least, could agree that the basic ideas were understandable. For what it's worth, in my opinion, the group that met at Cardiff was very good at doing this. With no obvious fanfare at the Makuhari meeting just a month earlier, Rob pulled together the group of people he wanted for this meeting in Cardiff. Some topics, of course, could only be dealt with by one or two of us. But in watching Rob lead this exercise, it gradually began to dawn on me that his scientific breadth was really quite extraordinary. Over a broad range of sedimentological, paleoceanographic, environmental and even lithospheric concerns, he was extremely knowledgeable.

A couple of weeks ago I took a look at Rob's publications using GEOREF. He was all over the sedimentological map - Indian Ocean, Mediterranean, North Atlantic margins, sediment drifts, even ice rafting. He wrote papers which emphasised regional tectonic processes, and papers on volcanogenic sedimentation. He bragged about papers he wrote concerning a hole in the ocean crust called King's Trough, partly explored during DSDP Leg 94, in which Rob served, with Bill Ruddiman, as co-chief. He dedicated a chunk of his career to developing and promoting near-bottom, high resolution survey equipment for sea floor study. I thus think that as a scientist, he was extremely well placed to take a strong leadership role in scientific ocean drilling, and it certainly helped him to be a major balancing factor in the development of our Long-Range Plan.

Rob was at the task of selling this type of science for a long time, longer by far than his tenure as PCOM chair. From that experience, he knew how to phrase things. He also clearly understood that by letting us all thrash things out, he would achieve something akin to a PCOM consensus, and thus he would be assured of our support for the contents of the document when he and others would have to sell it to anyone else. From where we started a few months earlier, I'm not sure any of us would have agreed that a consensus was possible. Rob knew that it was essential. Rob tried to summon up the best in all of us. I know that he was very pleased with, and proud of, the way we *finally* pulled together on this.

At this point I'd like to acknowledge those who worked closely with Rob in the JOIDES Office. The last two years have in some respects been the most extraordinary in the history of the institution - the first time outside the U.S., big changes in the wind, and all that has happened. If in the end the way we measure someone is in nothing more than the intensity of the devotion of his staff, marked in this instance only in part by their dedication of long hours to learn, and learn well, while doing, then Rob Kidd was truly exceptional in both his ability to select young collaborators, and to inspire them. This is the last meeting for Colin and Kathy, and for Julie back in Cardiff. I doubt they will ever have an employment experience quite like this ever again. But they have helped Rob in more ways than any of us can know, and thus they helped us. We owe them, in Rob's memory, joyous thanks and praise.

In conclusion, and sadly we must conclude, I remember our friend Rob as a complete man, who carried forward his life and its various enterprises - including this one - with grace and balance, and an even-handed, good-humoured optimism, that paid no attention to the occasional fatalism that he must have felt as a consequence of the vicissitudes of his own health. That optimism comes through in the words he asked to have read at what his family called the "celebration of his life", last June in Wales. These are presented in the frontispiece to our agenda book. Kathy suggested that it is better to hear them read, than to read them, so I shall now do this.

What is dying?

A ship sails and I stand watching till she fades on the horizon and someone at my side says, "She is gone." Gone where? Gone from my sight, that is all; she is just as large as when I saw her. The diminished size, and total loss of sight is in me, not in her, and just at the moment when someone at my side says "She is gone," there are others who are watching her coming, and other voices take up a glad shout, "There she comes!" and that is dying.

Bishop Brent.

Let's take a moment to collect our thoughts, and remember our friend Rob, before we get on with the task at hand.

Francis presented a tribute to Lou Garrison. Lou was the only the fourth person recruited to ODP, in August 1983, and worked for ODP for 7 years. He did a great job working for the Program and invited some around this table to be co-chiefs in the 1980's. He worked with USGS before ODP and had a long association with marine geology and ocean drilling. His main contribution to scientific ocean drilling before ODP was in the foundation of the Pollution Prevention and Safety Panel, and he served for many years as the chair of that panel. The foresight he showed in setting up such a panel was one reason why he was asked to serve the ODP.

2) LOGISTICS OF THE MEETING.

Pearce thanked Carter for the field trip prior to the meeting and asked him to outline the logistics of the meeting.

3) APPROVAL OF THE AGENDA.

Pearce asked PCOM for any comments.

PCOM Consensus 96-2-1

PCOM approves the agenda for the meeting.

Unanimous (1 Absent)

4) APPROVAL OF THE MINUTES OF THE APRIL 1996 PCOM MEETING, AIX-EN-PROVENCE.

Pearce asked for comments and amendments. Sager referred to p.29, "core-tensor stress measurements" and asked for clarification. It should read "tensile stress measurements". Francis, p.25 said that "Columbia" should be changed to "Venezuela", and the word "cores" should be deleted and "coring assemblies" inserted, also that "7 days drilling would cost $7M", should be "60 days/7 sites would cost $7M, and 31 days/4 sites would be about $4M". On p.40, remove the "$1M" figure from station keeping, and the figure for "Power management and living quarters /lab stacks" should be $900K. Sager would pass other minor changes to the JOIDES Office.

PCOM Motion 96-2-2

Subject to the changes outlined above, PCOM approves the minutes of the last meeting at Aix-en-Provence as a true record.

Unanimous (1 Absent)

Pearce then outlined the structure of the meeting (the main business of each day) for the benefit of observers.

B. REPORTS OF LIAISONS

1) NSF

Malfait reported. The ODP Council has interjected a new step in the planning process in that it wants to see further definition of the long-term plans of the Program in February 1997, based on the following items: a) a final JOIDES Science Management Plan; ii) a 5-year science implementation plan, through 2003, that addresses the Program's focus and priorities and a first order articulation of how the goals in the LRP will be addressed; c) 5-year budget plans including science implementation at different budget levels, with the maximum being that identified in the LRP, and the impacts of lower budget levels; d) the EXCOM/JOI resource strategy will need to identify the source of resources to support the budget plans and the actions and approaches the Program has to achieve the budget plans. There is also a requirement to rapidly communicate these plans to member science committees.

In terms of the change to the timeline diagram (Appendix 1), the international partners have been formally invited to continue membership through 2003, with final decisions required by the June 1997 ODP Council meeting.

NSF has requested a 5-year Program Plan from JOI containing the following elements: a) it will run from 1998-2002; b) it will be reviewed as the basis for funding authority; c) the base program should assume level funding through 1998; d) it should assume a modest yearly increase to the base

budget for the period 1999-2002; e) there will be a supplement above the base budget for 1998/1999 for the mid-life refit of *JOIDES Resolution*; f) this plan should be consistent with the science implementation plan; g) the report should be presented to NSF in March/April 1997.

Other details of NSF activities and information were that : a) US Department of State is currently considering a membership MOU for the terms of Chinese membership; b) the 1997 Program Plan has been received from JOI and is in good order; c) Antarctic planning has some implications for long lead time planning, and there are a number of environmental issues that NSF have to be sensitive to in terms of ODP activities; d) the FY97 NSF budget is still not finalised; e) Sandy Shor has left the ODP Program.

2) JOI

Falvey reviewed the X-base budget following the Aix-en-Provence meeting. ODP-LDEO has identified extra funds that could be used for the LEG 171B GHMT shortfall that was apparent at that time.

The Korean Institute of Geology, Mining and Materials (KIGAM) has now joined the Aus-Can consortia (at a level of 1/12 for the first year). Other member issues were: Taiwan - the situation still remains ill defined; China - A delegation from the State Science and Technology Commission visited Washington DC in April, and discussions with JOI and NSF on joining the Program as an Associate Member at a level of 1/6 partner are ongoing (see NSF report above).

The JANUS status is summarised as follows:

	User Group	Data Model Concepts	Data Model Definition	Software Dev't	Onboard/Lab Testing
Operations	1	complete	complete	complete	complete
Core Data	1	complete	complete	complete	complete
Sample & Curation	1	complete	complete	complete	complete
Paleontology	2b	complete	complete	complete	
MST & Logging	2a	complete	complete		
Paleomagnetics	2a	complete			
Physical Properties	3	complete	complete		
Chemistry	4a	complete	complete		
Core Description	4b	complete			
Hard Rock	5	complete			
Underway	6				

In terms of RFP's, the basic Wireline Logging Services RFP is now ready to go to NSF, following EXCOM's request for a change in the wording to maximise innovation. The SSDB RFP will have no major changes in the technical scope of work, but the RFP will encourage innovative use of electronic data storage and access. The JOIDES Office RFP for October 1998 to September 2000, at a non-US location, will be issued after the February 1997 EXCOM and responses will be accepted from each non-US JOIDES member. An assessment panel consisting of up to 5 non-conflicted EXCOM members will be appointed by JOI, and the following selection criteria will be used: a) scientific leadership and management qualities of the proposed PCOM chair; b) infrastructure available at the proposed host institution; c) estimated cost of operating the office at the proposed location; d) independent support, if any, that may be offered by the relevant National Committee or funding agency. The issuing of the RFP will have to wait until the new JOIDES advisory structure is in place.

JOI will manage a Co-Chief Scientists review on 20-22 November 1996, and a review of curation policy, adjacent to the Co-Chiefs review. This second ad hoc advisory group will consist of some IHP members, ODP-TAMU staff and recent ODP participants. The primary objective is to explore how ODP can more effectively maximise the scientific return from ODP materials while maintaining the high quality of core curation and repository activities. Discussion will focus upon: a) general policy of sample and data distribution; b) dedicated holes and composite depth sections; c) "re-curation"; d) curatorial practices vis-a-vis 1996 LRP; e) capacity of core repositories; f) integration of samples from other drilling platforms; g) sampling/curation and new publication policy; and h) sampling/curation and JANUS database management. The group's recommendations will be put to SCICOM/PCOM before implementation.

JOI has appointed Pamela Baker-Masson as Director of Public Affairs and is currently re-defining a public communications strategy. Short term objectives include: Interacting with Program participants to identify available resources and conduct assessment of public affairs priorities;

establish a communication system linking all member country public affairs individuals/offices; update and prepare ODP public information materials for international audiences and review US public information materials; develop story ideas and target US and international media; use port-call events to target public figures and funding entities; develop Program-wide draft of media crisis communication plan.

Options for the Joint Management of ODP and OD21 in Phase IV have the following basic assumptions and criteria:

(a) Basic Assumption

The Long Range Plan (1996) identifies scientific ocean drilling problems that require two drilling platforms beyond 2003:

1. A *JOIDES Resolution*-type vessel, *without* a riser system - for relatively *shallow* drilling (mainly "Dynamics of Earth's Environment")
2. A vessel of the type described in the OD-21 initiative, *with* a riser system - for *deep* drilling (mainly "Dynamics of Earth's Interior")

(b) Basic Criteria

The management and organisation of ODP and OD-21 beyond 2003 should satisfy the following criteria:

1. ODP (Phase IV) and OD-21 should have integrated management, science co-ordination and science advisory functions
2. The drilling platform provided to the international ocean drilling community by the United States should be an identifiably US facility
3. The drilling platform provided to the international ocean drilling community by Japan should be an identifiably Japanese facility

Integrated ODP-OD21 management hinges on a single JOIDES Advisory and Program Management structure (Appendix 2). This model has been accepted by JAMSTEC in principle, subject to a detailed paper being produced.

Natland asked about the co-chief scientist review. Falvey replied that it was brought up by PEC IV. It was more appropriate to be managed by JOI rather than ODP-TAMU as it involved all the elements of the Program (WLS, JOIDES) and not just Science Operations.

Coffee ..... *10:55 - 11:15*

3) ODP-TAMU

Francis reported. Leg 167: off-loaded 1500 m of core before the end of the leg (total 7501 m of core was recovered). The San Francisco port-call had a lot of PR activities associated with it, and the new 2G magnetometer was installed on the ship. Leg 168: 4 re-entry sites had just ended, an ambitious project during which all objectives were achieved. Some additional sites were drilled at the end of the Leg as time was available. CORK sites were established at Sites 1026 and 1027, though there were some problems with cementing the casing at Site 1027. There are a lot of public relations activities at the Victoria port-call, which have been organised by the Canadians. The Saanich Inlet drilling will begin today, the *JOIDES Resolution* will be accompanied by a Canadian Coast Guard vessel to keep the public away. There will be journalists, and a film crew will be aboard for part of the Leg. Negotiations with ODL have included an amendment to the contract to allow the drilling in both Saanich Inlet and on Leg 174A. This amendment requires ODP-TAMU to acquire extra insurance for the vessel (50 days of coverage). Shallow water guidelines have been revised (see last December meeting notes) and additional training for stuck pipe procedures will be undertaken by the crew.

The schedule was changed in May (see agenda book) with Leg 173 being split into two legs rather than three, and Leg 174A has been given an extra four days at sea.

Project management training has begun, and three categories of project have been determined for drilling legs, a) development of operational parameters and costs of legs BEFORE scheduling, b) one per scheduled leg, from scheduling to completion of operations, c) Leg publications. Leg 176 will be the first "b" project undertaken.

The ODP-TAMU schedules for its project types were outlined (Appendix 3). Project "a" has been started and will be applicable for this meeting. Project management is giving ODP-TAMU a better idea of where its money is going and what the actual costs of individual elements of the Program really are.

Engineering and Drilling Operations at ODP-TAMU has a new manager and new name; it is now called the Drilling Services Department. Two key members of the engineering department have left ODP-TAMU (Reudelhuber and Stahl).

Publications in the outside literature at >1 year post-cruise has been allowed beginning with Leg 160. The *Scientific Results* publication date has been moved to 4 years post-cruise in a transition period through Legs 161-163. A market analysis of electronic publications is being carried out to determine the hardware/software available in the community, feedback on the use of CD-ROMs, and with the use of electronic publication, what will users want to print out? Leg 169 staff are affected by publications uncertainties, and a definitive decision on publications is urgently needed. The uncertainties over publications are leading to a very large staff turnover in the publications department (almost 50% in the past year). The coring time estimator is now available on the WWW, the URL address is http://www-odp.tamu.edu/eng/drillest.html

There have been announcements of the building of two new deep water drillships - Discoverer Enterprise and Glomar Explorer. This may put pressure of ODP-TAMU's ability to hold onto and attract engineers. The SEDCO/BP 471 has now been officially re-named the *JOIDES Resolution*.

A request for an ODP-TAMU engineer to go on an Arctic leg was declined as the Science Operator did not have the manpower, a decision which was made before the loss of the two engineers announced above. The NAD, who made the request, were unhappy that the engineer couldn't go especially after the PCOM resolutions from August 1995.

Moving to proposals, the E Asian Monsoon has 6 sites in the South China Sea, with 4 sites in Chinese waters and 2 others, but there are no international agreements to territorial claims in that region. The US State Department suggested seeking clearance from all parties, but indicated that it believed permission would not be granted. ODP-TAMU have contacted CCOP on this matter and that organisation do not want to be involved. ODP-TAMU believes that this is not a viable drilling leg to appear in any long range schedule.

Falvey said that PCOM are asked, at this meeting, to be a little more rigorous about the contents of the FY98 Prospectus as JOI have to meet NSF's schedule for the 5-year plan. This means making a shorter prospectus, actually as short as possible, but it will be possible for PCOM to refine this in December. Larson said that in effect that would pre-empt the thematic panel discussion in the fall. Francis said that ODP-TAMU have been asked to provide a budget in October this year for FY98 drilling. Sager commented that ODP-TAMU have provided a model for a standard leg, and that PCOM could use this to identify non-standard legs. Francis said that ODP-TAMU have done this in a preliminary fashion already.

4) ODP-LDEO

Goldberg reported on recent logging results. Leg 167: 7 holes logged using the triple combo suite with IPL, FMS and GHMT. Results were exceptional, and data was transmitted to and from the ship via satellite allowing the scientists to leave the vessel with processed data. The CLIP "Splicer" module was used extensively and the output was successfully integrated into the JANUS database. The "Sagan" module was installed and tested. Leg 168: had one hole logged using the triple combo IPL, FMS and GEOCHEM tools, the SLIP "seismic" module was installed and tested, and a Downhole Measurements laboratory upgrade was completed in port.

Examples of data from Site 1014 (gamma and resistivity data) were reviewed, along with the results of processing of the FMS dynamically normalized conductivity which illustrated that a resolution of sub-orbital scales is now achievable (Appendices 4 and 5).

Magnetic susceptibility, density and natural gamma logs at Site 1020 show that the downhole resolution is now approaching that of shipboard measurements (Appendix 6).

Upcoming logging operations. Leg 169: standard tool sand Becker T-tool (hi-T) scheduled, Lamont/French T-tools (hi-T) deployed. Leg 170: LWD standard tools planned for 3 holes, triple combo with IPL, and FMS scheduled for 1-2 holes, shear sonic tool (LDEO) deployed for 1-2 holes. Leg 171A: LWD standard tools planed for 4 holes, standard sonic log scheduled for 1 hole, replacement of Wireline Heave Compensator pump. Leg 171B: triple combo with IPL, FMS/sonic, and GHMT scheduled. Logging planned in 4 holes. Replacement of Wireline Heave Compensator pump (continued).

Log database. Data model for raw geophysical and geochemical log data completed; model for processed data under development by Tracor and BRG. Database WWW page; log data catalogue on-line with geographical search by tool and Leg capabilities; data plotting tool available in September. Historic log data migration project initiated and on schedule (Appendix 7).

The Leg 174B GHMT funding has now been found due to non-deployment on a previous leg.

C. PCOM LIAISON REPORTS

1) EXCOM

Mix reported. Thanks were expressed to the recent and future co-chiefs and JOIDES Office for all assistance in preparation for his presentation. Three major issues were raised at EXCOM and the joint EXCOM-ODP Council session: a) the JOIDES advisory structure re-organisation plan, b) the FY97 schedule presentation (with much praise from EXCOM for the X-base budgeting system), c) presentation to ODP Council of the previous year Program accomplishments.

ODP Council presentation and joint session comments. Mix presented a 20 minute talk on the last 6 legs of drilling. This was the first time that a scientist had presented the results to ODP Council. It was a very important innovation as the Council members never before had a real sense of what they actually paid for. Council members were filled with questions and were very excited both during and after the presentation. The talk was presented in terms of the LRP, how ODP is re-orienting its science into the themes of the LRP, and how each leg fits into a long-term strategy. It is the only forum where the whole of the Program is explained and why it has to be done as an international partnership. Concerns expressed included whether ODP was becoming more efficient. Falvey, for JOI, gave the response in terms of dollars, and Mix gave a response in terms of science. Another concern was whether there is a significant level of innovation and new technology, and third, if the products were being used by the outside community. Finally, ODP Council asked how accountable the Program will be to the LRP. Council were concerned that the "BEST SCIENCE" was linked to the LRP. The 5-year plan requested by Council should be viewed as an opportunity to send the message that the Program has exciting projects planned, but they will cost more, and the ODP community has to convince the Council to spend more and not cut pieces from the Program. ODP Council want to see different budget scenarios as to how the Program will accomplish its goals, though overall it (ODP Council) was reasonably happy with the overall direction of the Program.

Falvey continued. He referred to the budget scenario in the LRP, saying that ODP Council asked for the budgets to be presented in more detail than in the LRP. He reviewed the single Phase III budget scenario that was presented to ODP Council in Oslo (Appendix 8). He said that EXCOM and Council then asked for other scenarios, such as losing a member in FY99. Francis asked if additional platforms were included as contributions in kind? Falvey said that this will require detailed discussion before it is finalised.

Malfait said that the message about the exciting science of the Program can be sent through the national offices.

Pearce said that many items alluded to here would be returned to later in the meeting.

2) SSP

Kudrass said that many items discussed at SSP will also be dealt with later in this meeting. SSP set up a sub-committee to look at how the new advisory structure might effect the work of SSP, and referred PCOM to the tabled SSP minutes. Ellins said that many of the SSP concerns are addressed already in the implementation document in the PCOM agenda books. Another SSP recommendation was that the panel wanted the same database in the SSDB and the JOIDES Office.

D. REPORTS ON GLOBAL GEOSCIENCE PROGRAM WORKSHOPS

1) ODP - IAVCEI - INTERRIDGE

Mével reported. She said the meeting discussed LIPs, Ridges, and Arc systems. There were presentations over 1.5 days, and included technological aspects of drilling. The meeting then split into 5 working groups which produced the following (summary) goals. Site survey requirements were not discussed by the working groups as time was not available. The most important consensus arising from the workshop was

"Drilling legs should be part of integrated studies, involving other types of experiments, organised in the frame of other global initiatives" (InterRidge, ION, Margins...).

An overview of the outcome of the work of the various working groups was presented:

Fast Spreading Ridges

Priority: total crustal penetration - relationships between the seismically defined melt lens, dyke injection and the building of the upper crust; depth of hydrothermal circulation; freezing of melt in the lower crust; nature of the MOHO (reference hole).

Strategy: (deep hole - three stages) 1) exploratory leg to select a place for a deep hole (possible sites discussed : H2O site, cable between Hawaii and California; Mohole site, near Guadeloupe Island, Mexico; super-fast crust, east of the East Pacific Rise south of the Garrett Fracture Zone; Site 504B, although intermediate spreading rate. 2) start the deep hole during Phase III (2-3 km), using the *JOIDES Resolution*. 3) continue to 6 km using a new vessel post 2003. (Offset drilling strategy) because the deep hole is a long-term goal, pursue the offset drilling strategy at Hess Deep to sample the lower crust and upper mantle.

Slow Spreading Ridges

Priority: heterogeneity of lithosphere architecture - significance of the variation in MBA between the centre and the end of a segment, focus/non-focused mantle upwelling, significance of MOHO when residual peridotites crop out (at the end of segments).

Strategy: 2 experiments. A) Crustal drilling - three stages. Characterise the crustal structure in the centre and at the end of a well-defined segment. 1) drill two arrays of shallow, single bit holes along two flow lines at the centre and the end of a segment, 2) select two of the holes, one at the centre, one at the end, for deepening to 1-3 km, using the *JOIDES Resolution*, 3) continue to deepen the two holes. B) Mantle drilling - drill a serpentine belt at 15°N on the mid-Atlantic Ridge, to characterise upper mantle and melt geochemistry, melting and melt migration mechanisms, deformation structures (in the lithosphere and asthenosphere), hydrothermal alteration, and the variation of these properties along axis.

Active Processes

Priority: ridge axis observatory experiment - temporal variability of accretionary processes at mid-ocean ridge. The ridge axis environment is the most important, however other environments should be investigated also: ridge flanks, intraplate volcano, convergent margin. Biology.

Strategy: Phase III - drilling and instrumenting 5 boreholes in conjunction with a ridge axis experiment: L-shaped array of 5 holes, ideally to 500 M, CORKs, develop physical and chemical sensors, DCS? Phase IV - deepen a hole to 2 km, initiate new observatories at alternative sites (ridge flanks, intraplate volcano, other spreading rates ?).

LIPs

Priority: understand the timing, genesis and environmental impact of the Cretaceous LIPs - LIPs are not clearly explained in the plate tectonic model; energy transfer from the Earth interior has occurred in a mode substantially different from present day. Constrain the timing, the volume, the chemistry of a LIP magmatic event; establish temporal relationships among different Cretaceous LIPs; quantify the LIPs contribution to the global magmatic flux throughout the Cretaceous period.

Strategy: 1) drill the Kerguelen LIP (Phase II), 2) drill a giant LIP (Ontong Java) and possibly two others (one older, one younger) (Phase III), drill one deep hole and two intermediate holes in a giant LIP (Phase IV).

Convergent Margins

Note: The working group felt that they represented only a small portion of the community working at convergent margins.

Priorities: testing the ophiolite model, the formation of ore deposits. Most ophiolites were not formed at a mid-oceanic ridge but likely in a suprasubduction zone. Drilling in a forearc would test this ophiolite model and provide a reference hole to the ophiolite community. Metallic ore deposits of economic importance were not formed at mid-ocean ridges but in arc environments. Drilling in an active hydrothermal system in that type of setting would help understanding of formation of large ore bodies.

Strategy: 1) drill a 2-3 km deep hole in a forearc, Site 786 in the Bonin forearc could be deepened, 2) drill an active hydrothermal system in the western Pacific, PacManus (andesite-dacite hosted deposit) is a good candidate.

Technological requirements

The capability of the *JOIDES Resolution* has not been fully exploited, drill holes to 2-3 km during Phase III should be feasible with present technology.

Improve penetration and recovery: hammer-in casing system; DCS - important for drilling holes in young crust (active processes).

Develop a new generation of borehole instrumentation and logging tools (slim holes produced by DCS).

Strong interest for deep holes (6 km) ship equipped with a riser (Phase IV). *However, most of the holes discussed will be beyond the reach of a riser with a 2500 m water depth capability.* Explore other directions such as riserless drilling or slimline riser.

Strong interest in the biomass: develop tools to sample the biota without contamination, develop a biology laboratory on the *JOIDES Resolution*.

Working Groups

The workshop participants recommend to ODP to create 5 working groups which will address the scientific questions discussed at the meeting. Only two address lithospheric problems exclusively.

Ridges: will address all the questions related to accretionary processes at mid-oceanic ridges (fast and slow). *InterRidge*.

LIPs: *LIPs*

Borehole Instrumentation working group: should cover the different environments, including ridges. *InterRidge, ION, Margins (?)*

Biology: to discuss all the aspects of sampling and studying the biological specimens in boreholes. *InterRidge, others (?)*.

Active convergent margins: to cover all the aspects of the arc environment, and not only the lithospheric aspects. *InterRidge (for the back arcs), MARGINS, (?), ION ?*

Mével reviewed a matrix of proposed legs for Phases II, III, and IV (Appendix 9).

Mountain commented that he was disappointed the workshop did not provide SSP with a list of criteria that were required prior to drilling a deep hole. Mével said that it was simply due to lack of time. Sager commented that there was no convincing argument of the absolute need for a deep riser drilling vessel. Mével replied that it would be required, but plans had yet to be defined. Natland said that he was astonished at the interest in LIPs at the meeting, and that the biology laboratory recommendation was aimed at getting it set up in the FY98 *JOIDES Resolution* refit.

Lunch ..... *12:50 - 13:50*

2) ANTARCTIC DPG REPORT.

Barrett presented referring PCOM to the full report and his tabled summary. He reviewed the background to the DPG and its membership. It was a very successful meeting with group consensus on the recommendations at the end of the meeting. The justification for drilling around Antarctica was reviewed. Most ice was contained in the East Antarctica ice sheet, but the West Antarctic ice sheet was thought to be the most unstable, although glaciologists were divided on this issue. It can be addressed by looking at the historical record. There are two main ice-volume proxies available, firstly the oxygen isotope curve and secondly the onlap/offlap curve determined by Haq et al. At the Eocene - Oligocene boundary there is no correspondence between the Haq onlap/offlap curve and the oxygen isotope curve, and further back in time the oxygen curve suggests that no ice sheets were present in Antarctica, whereas the onlap/offlap curve suggests that some short-lived ice-sheets may have been present. One of the current best determinants of ice sheet size is temperature. The ice-sheet would actually increase in size with a 5°C temp rise, but above 9°C the West Antarctic ice sheet begins to shrink rapidly. Should there be a 19-20°C rise, the entire Antarctic ice-sheet would disappear, resulting in a 60 m rise in sea level.

The regions selected for study are the Antarctic Peninsular, Weddell Sea, Wilkes Land, Ross Sea and Prydz Bay. The physiographic environments to be examined include both shelf and slope sites, paired with drift sites on the continental rise that will give more continuous records. Problems are weather and sea-ice, which realistically means that only one leg could be drilled each year. Previous experience in this region indicates that the legs close to the Antarctic actually have better weather than those further out in the Southern Ocean. Other drilling programs include the Cape Roberts project (tabled leaflet), and the Norwegian program.

The order for drilling proposed is 1) Antarctic peninsular (as this could easily attach to a cruise planned from Cape Town, and it is the most mature proposal), 2) Weddell Sea, 3) Prydz Bay, 4) Ross Sea.

Sager asked about the need for five areas rather than two or three. Barrett said that the objective is to link the advance and retreat of the ice with the sediment drifts, there is no one place where the whole story can be obtained. A number of different sites will also ensure that results will not reflect local conditions. Ellins said that not all the proposals are in the same state in terms of site survey

readiness and that was why the drilling plans did not reflect the science priorities of the DPG. She said that each drilling plan was in fact a combination of a number of proposals.

3) ION

Dziewonski reported. The benefit of seismic networks would allow, for example, determination of the differential rotation of the Earth's core, but stations have to be placed in critical places. It will also allow detailed examination of the seismic velocity anomalies below mid-ocean ridges, which is fundamental for the understanding of ridge processes, the examination of seismic anomalies (super-plumes) at global scales, and which plumes are connected to surficial expressions such as rifts and ridges. ION was proposed in 1993 as a series of permanent observatories in the ocean, its objectives were reviewed as was the workshop held in Marseille in January 1995 (reports already published). There are many common elements in the studies of active processes and larger (continental/global) scale processes. There is a natural division between deep earth structure and dynamics and the recommendations for active process studies, and these were reviewed as were the summary recommendations:

Scientific Objectives - Global Studies

I - Seismology. Fill in gaps in global station distribution to address issues such as: role of tectonic plates in the global deep circulation; style of mantle convection; core-mantle boundary structure.

II - Geomagnetism. Core processes; flow at the core-mantle boundary; core-mantle topography and coupling to mantle; electrical conductivity of deep mantle.

III - Geodesy. Global plate kinematics; strain monitoring at plate boundaries.

Scientific Objectives - Active processes

I - Mid Ocean Ridges. Scale of flow in upper mantle; volcanic and tectonic processes; vent field processes.

II - Convergent and Passive Margins. Fluid flow and biogeochemical fluxes; seismology from the ocean side; hotspots; mid-plate processes.

Summary Recommendations

Long-term observations on the ocean floor of a variety of phenomena are required to address a range of important problems in Earth system science.

One group of experiments must be framed to study deep Earth structure and dynamics, involving the disciplines of global seismology, geomagnetism and global geodesy.

Another group of experiments must be developed to focus on observation of active processes in a variety of geotectonic environments.

Observatories must be sites where scientists can deploy diverse instruments and share infrastructure, in which observations of several different phenomena are combined and are continued for periods of a year or more.

More than ten observatories are required over the next five years to address the necessary science of both groups of experiments.

Data collected at the observatories must be made freely available to the global community of scientists.

ION must function as a clearing house for scientific opportunities and for data exchange, and will undertake long-term planning of observatory work.

In terms of technical issues, real-time data recovery, supply of power to observatories, modularity of design and ability for expansion of observatories were the main considerations.

Another Program, Borehole, was formed with its own plans for the use of sea-floor sites. There is a lot of commonality between Borehole and ION.

The current ION proposal submitted to ODP has 9 sites, and it is hoped that this proposal would be discussed in the 5-year plan. Maps of planned sites in the Pacific, Atlantic and Indian Oceans were reviewed and it was announced that ships had been scheduled for some preparatory work.

Larson asked about survey requirements for these holes? Ellins said that SSP require three-dimensional data for the proposed ION sites. Dziewonski said that the Hawaii site had the same requirements as for ordinary drilling sites. Ellins then reviewed the SSP requirements (from the

tabled SSP minutes). Kudrass asked about the number and amount of basement penetration sites that would be required. Dziewonski replied that there are about 30 sites required overall. Tests on the instruments will be undertaken at the Hawaii site next year, including borehole and surface instrumentation. There is significant expectation that borehole emplacement will produce better results than surface data.

4) IMAGES

Mix reported. IMAGES was beginning to take shape and the US membership was becoming organised (MESH would be the US member). He referred to the tabled letters and said that IMAGES now has a draft agreement circulating amongst potential members, and draft implementation plans were being put together, including potential field programs. Near-term plans include a (funded) coring program around the Taiwan region, and possibly around New Zealand.

The IMAGES newsletter discusses relationships with ODP. The IMAGES steering committee has realised that longer cores are part of the IMAGES mission, and it wants to initiate formal links and work closely with ODP.

The MESH meeting, in July, prioritised studies and tasked individuals with pursuing drilling proposals, focusing on Pliocene and Eocene warm periods, and oceanic anoxic events. Key process are the history of ice in the southern hemisphere, and especially looking at Paleogene objectives within the Antarctic programs. Stability of the tropical thermostat (W Pacific) is also another key process that will be studied by using transects across the paleo-equator. The Bering Sea is another area of interest. A detailed workshop report will be available in the near future.

Natland asked if the meeting represented the overall scope of IMAGES work. Mix said that it did not address some themes that IMAGES are interested in and so there will be more to come. There was a request that ODP form a Working Group on warm climates.

Carter said that IMAGES is still unsure of how to define its membership. The fees have increased significantly, and in some countries it is giving supporters of both ODP and IMAGES problems as there is competition for funds with ODP.

5) NOTIFICATION OF UPCOMING WORKSHOPS.

Johnson said that there will be a meeting from 22-24 October 1996, at Orcus Island, Washington, on The Magnetisation of Ocean Crust. He did not think that specific drilling proposals would result from this workshop, but the attendees would probably like to look at, and suggest modifications to, existing proposals to accommodate their requirements. Kudrass said there would be a workshop on technological aspects of deep drilling in the oceans, with attendees from industry, to look at future European strategies for ocean drilling. It would be held on 14 - 15 October 1996, in Strasbourg.

E. LEG REPORTS

LEG 166 (BAHAMA TRANSECT).

Eberli reported on the results of the leg. A full description can be found in the Leg 166 Preliminary Report available from ODP-TAMU and on the WWW.

Scientific Recommendations: a need for transect legs in other oceans to assess global synchronicity of sea-level changes.

Operational Recommendations: more time for transect legs; WST necessary for precise core/log/seismic correlation; LWD for deeper holes; improve barrel sheets to improve resolution of sedimentary record.

Carter asked about dating. Eberli said that it was not easy as the last appearance points were probably premature.

LEG 167 (CALIFORNIA MARGIN).

Lyle reported on the results on the leg. A full description can be found in the Leg 167 Preliminary Report available from ODP-TAMU and on the WWW.

Scientific Recommendations:

Operational Recommendations: MDCB was very good for taking samples of both basement and cherts. It did take time to ensure good recovery, but the time investment could be very worthwhile and was better than the XCB. Concerned about the possible change for the Initial Reports, and that the publications issue must be cleared up very soon. Recovery of 7500 m of core led toward bottlenecks, specifically - core flow (descriptions and paleomagnetics), reefer space, the amount that the shipboard party can write.

Mix asked about sub-Milankovitch variability. Lyle said that there is such variability, but the dating has yet to be refined to produce detailed results.

Pearce thanked Lyle and Eberli for their reports.

Coffee ..... *16:10 - 16:40*

F. ODP PHASE III IMPLEMENTATION PLAN

1. AS PRESENTED TO EXCOM AND ODP COUNCIL AND EXCOM ACTIONS.

Mix presented this report. The approach at EXCOM was to identify the goals, to inform EXCOM that PCOM intended to keep what worked in the advisory structure, and had identified what it believed could be improved. EXCOM were asked for specific actions : i) endorse the basic framework, ii) endorse the concept of thematic balance on SCICOM, iii) task PCOM with additional mandate development, iv) determine the timing required, v) consider the resource implications. Each level of the proposed structure was outlined as were any remaining discussion items. EXCOM endorsed the framework, the concept of thematic balance, tasked PCOM with mandate development, and will consider a start date of 1997. The number of working groups (resources) is still under discussion.

The workload for the SCICOM chair was discussed, but no solution was forthcoming, although a deputy was suggested; this was discussed later by the joint sub-committee. Membership was a big issue for EXCOM, especially on SSEPs and OPCOM. If it was a voting body it would have to have full proportional representation. The solution for EXCOM was that OPCOM would be a sub-committee of SCICOM with overlapping membership. As regards PPGs, EXCOM decided that members retained the right of representation, and therefore if there are many PPGs then the whole structure would grow. They would be financially self-limiting in that if a country wanted to send a member then they would pay for them. As regards the SSEPs, the PCOM consensus in the last meeting was to have them with limited power, dealing mainly with mail reviews. EXCOM wanted them to be active in advising SCICOM on the development of themes, and to help individual proponents who were not in PPGs in nurturing proposals. EXCOM wanted more thought put into the calendars, information flow, and the transition phase. The EXCOM suggestion for the transition was to form proto-SSEPs from the present thematic panel membership, with tuning as needed for representation and thematic balance. The SSEPs should be unconflicted groups with, initially, a one-year mandate.

In terms of leadership, EXCOM received a report from Otis Brown, and it accepted that SCICOM and the SCICOM chair represent the scientific leadership, though an individual, as an advocate, may still be required at a high level. One idea was to bid the EXCOM chair, but this did not seem to advance.

2. PCOM/EXCOM SUB-COMMITTEE REPORT.

Shipley reported. In the document in the agenda book, the changes from the PCOM model developed in Aix-en-Provence were at EXCOM insistence. Shipley reviewed the membership of OPCOM, and said that he thought that it would be only doing slightly more than Drillopts. He said that as a six-person committee he did not believe that there was a lot it could do. He said that the SCICOM/OPCOM chair would need to be relied upon to ensure that the wishes of SCICOM were implemented by OPCOM. The idea of a deputy was discussed, but the discussion indicated that a deputy would need to be co-located.

Science Steering and Evaluation Panels (SSEPs) would grade proposals rather than rank them, and they would have an interaction with the Program Planning Groups (PPGs). Membership would require that the individuals would be unconflicted. Mix interjected that was not what he heard at EXCOM. Pearce said that was an item for further discussion. Shipley continued. There may be problems in getting individuals to serve on such committees, and there may be continuity issues to address.

PPGs had the name change as there will be other kinds of working groups within JOIDES and they should not be confused. PPGs would be used to address areas where proposals for goals in the LRP are under-represented. The right of representation may also be an adverse issue for the Program. Care will have to be taken in which PPGs are set-up.

Pearce asked Humphris how she felt about the workload arising from OPCOM? She said that if it was totally separate from SCICOM it may need its own chair, but because of the logistics issues and the information flow through the JOIDES Office, it was important that OPCOM be a sub-committee of SCICOM, and that the SCICOM chair should chair OPCOM. Larson commented that the SCICOM chair would stay at the top of the structure and may not be able to become closely involved with the

PPGs and lower levels of the structure. Pearce asked Falvey to comment on the rights of representation. Falvey said the right of membership would exist on all PPGs, but the expectation was that this right would not always be taken up. McKenzie said that her consortia is keen to send individuals to the PPGs. Mével asked for further discussion of the PPG mandates and was supported by Humphris. Falvey said that the JOIDES part of the membership will be decided by SCICOM, and that if ION or another program wanted to send members then that program would have to find the funds. Dziewonski commented that with his program, the data belongs to the community, and that conflict of interest should be considered when membership is discussed. Pearce said that links to other programs can also be discussed further.

Sager commented that the service panels will need to be discussed. Pearce reminded PCOM that this was raised in the agenda notes. Larson said that the question of SSEPs not being proponents needs to be discussed, and Pearce said that conflict of interest will also need to be addressed. Mével said if SSEPs are to interact with SCICOM, then it would remove the scientific leadership from SCICOM. Humphris said that SCICOM would simply be taking advice and using the experience of the SSEPs.

Sager said that he sees no work moving from SCICOM. Mountain asked that there be a presentation of how a proposal would go through the proposed system, including the calendar. PCOM agreed that this was desirable. Mix asked that the liaison paths be clearly defined. Natland asked for clarification on how the X-based budgets would be dealt with, and which committee would deal with them. Falvey said that the structure would evolve, and that the objective is to provide the best targeted advice so that the Wireline Logging Service and Science Operator can fulfil the goals it is set. In terms of the X-base, JOI, ODP-TAMU and ODP-LDEO hear the discussions and interact with BCOM. This process will continue, and it is likely that next year OPCOM may take some of this responsibility away from BCOM. The proposed new calendar should allow OPCOM to take over this function entirely.

Pearce said that in terms of the gross structure, PCOM is in general agreement, only the details need refinement; PPG membership and mandate; the mandate and other aspects of the Scientific Measurements panel; the SSEP membership and mandate; the precise membership of OPCOM.

Adjourn *17:50*

Tuesday 20th August 1996 ***09:00 am***

4. PCOM DISCUSSION.

SCICOM

Falvey presented an update on how the US members of SCICOM would be chosen in the future. The JOI BoG agreed to remove the connection between JOI institutions an US members of PCOM (SCICOM). A nominating committee will be set up by the USSAC chair and the JOI BoG chair, and the nominees will be selected by that committee. It will be implemented this year and will give the board the freedom to achieve thematic balance on SCICOM. Larson said that the nomination list will be prioritised. Falvey confirmed that there will be an advert for nominations to PCOM, Larson said that it is already published in the USSAC newsletter. Falvey said that the majority of the current US members on PCOM will probably see out their terms. Larson said thematic balance would be achieved in a similar manner to the way that thematic balance was maintained on the drill ship at present.

Larson said that at present the rotation is four years and he asked why there was a change to three years. Falvey replied that the shorter term was to embrace a larger community, but really it would be up to national committees, and that the document in the agenda books reflected the new US position. Ellins said that the term length of the SCICOM/OPCOM chair may also be extended to three years, which could in reality mean a five year membership for certain individuals. Natland said that for USSAC, four years was the preferred option. Larson and Falvey said that this could always be changed.

OPCOM

Pearce commented that one way to deal with this would be to let it run and to deal with problems if any arise. Humphris said that she is happy with the concept of chairing it initially. In terms of membership, there may be a requirement for different expertise as and when required.

SSEPs

One main concern was how scientific balance would be achieved, and another was that members must not be in PPGs or be proponents. Larson suggested that SSEP members not be allowed to be members of PPGs but should be allowed to be proponents. Mountain commented that there is a mechanism to deal with conflict of interest and so being a proponent should not be a problem. Larson said that it was inconsistent to have conflicted SCICOM members and unconflicted SSEP members. Kudrass said that he too wanted members to be able to write proposals. There was PCOM consensus that members of SSEPs be able to write proposals.

Mix asked about inter-panel liaisons and suggested that they be explicitly determined. Carter suggested that the Chairs of SSEPs will be liaisons to SCICOM. Humphris said that the chairs actually report to SCICOM and not liaise. McKenzie asked about SCICOM liaisons to the SSEPs. PCOM consensus was that there should be SCICOM liaisons to SSEPs.

PPGs

The key item was that membership be determined by SCICOM. It could be re-written as "To be determined by SCICOM, though consultation with SSEPs and community programs". McKenzie asked about the mechanism for setting up PPGs. Mix said that the formulation would not implicitly include or exclude proponents. In terms of representation, each member must be given the right of membership. Mix asked if members could send whomever they wished? Pearce said that national committees would have that ultimate right. Membership wording would be changed to "Chosen by JOIDES member committees with SCICOM advice through consultation with SSEPs and community programs". Malfait said that even at present, each representative at PCOM has the right to demand representation for his or her institution on each DPG or WG.

Humphris asked about the last bullet on the mandate. She suggested removal of "rather than the Program Planning Group". Ellins reminded PCOM that SCICOM can still form DPGs that can write drilling plans, such as the recent Antarctic DPG (which essentially is a drilling proposal or plan).

Service Panels

There was no overwhelming opposition to the sentiment that IHP would be disbanded, though certain parts may reform for specialist requirements. Also there was no significant opposition to the idea that DMP and SMP be merged. A letter from the chairs of the above committees have asked that PCOM reconsider this issue. Pearce said that this has been through EXCOM and it is unlikely to be varied a great deal. Sager suggested that the rationale for this, to save money, was the first that he had heard about this. He quoted some of the objections from the panel chair's letter in the agenda book, including the suggestion that to save money the panels could meet only once per year. The biggest concern is that the mandates of the present panels such as curation, publications, database etc. will not be covered by a combined panel. Sager volunteered to host a sub-committee meeting to determine exactly what will areas of science advice will need to be covered by a combined panel. Natland said that initially he understood that all three panels would be combined, but now it appears that one is to be disbanded. Larson said that this issue must be addressed in detail. He supported Sager's suggestion of having a partial moratorium on the combination of these panels until the mandates have been determined. Falvey said that IHP advice has been weak for some time. In each of the database, publications, and curation fields there are (or will be) JOI sub-committees to take these issues forward and provide strong, definitive advice to the operators. Falvey said that, for example, he wants to avoid the present system of ad-hoc advice on curation on a leg-by-leg basis.

Pearce said that he spoke to the IHP chair and she was happy with things as proposed. The new system will provide a degree of flexibility that presently does not exist, as the panel would be able to "import" expert, focused groups as and when required. Brown said that for some issues there was a great deal of overlap of work between panels. Falvey said that ultimately the science advice forms the annual Program Plan, and if that advice is inadequate then he will call for a further strengthening. Natland suggested that the wording be modified to "A new Scientific Measurement Panel will be formed from elements of the existing DMP, SMP and IHP". There was PCOM consensus on this new wording. Larson suggested that Sager's sub-committee meeting be allowed to go ahead and that it produce a mandate for PCOM to consider. The sub-committee, will consist of the chairs of the three relevant panels, plus Sager, Brown, Moore, Suyehiro. Pearce said that a mandate developed in this manner could be approved by an e-mail consultation of PCOM.

Carter asked about implementation on 1 January 1997, and whether the service panel advice could continue in its present structure through the initial implementation phase. Pearce said the implementation can be phased, but that EXCOM will need a specific mandate for approval. Mountain and Carter asked why PCOM cannot debate this further in December. Larson said that it is apparent

that there is consensus that there will be one service panel, but the question of timing still has to be addressed.

Coffee ..... *10:10 - 10:40*

> PCOM Motion 96-2-3
>
> PCOM recommends to EXCOM the proposed new advisory structure with wording modified from the version of July 24, 1996 (attached). Under JOIDES Service Panels, the mandate for the new Scientific Measurements Panel will be refined by a sub-committee formed of the present chairs of IHP, DMP, and SMP, plus the following PCOM members: Brown (SMP liaison), Moore (DMP liaison), Suyehiro (Japan), Humphris (PCOM chair-elect) and Sager (IHP liaison and chair of sub-committee). This group shall meet at College Station in November 1996. Any revisions to the mandate will be approved by PCOM through e-mail review.

Proposed: Natland, Seconded: Brown *16 For, 0 Against*

Humphris asked about the timing. If EXCOM approve this in November/December, then there are only six weeks for nominations for members of the new committees. Larson said that it was reasonable to ask EXCOM to meet early to approve the new structure, but he didn't understand why they couldn't approve a part of the structure with the service panel details to be approved later. Pearce said that PCOM have to give EXCOM a complete package of mandates for the new advisory structure, but the actual phasing in of the new panels is a separate issue. Humphris said that in February 1997 EXCOM would select SCICOM members, so that SCICOM could meet in the following April, and therefore EXCOM will need nominations at its February meeting. Falvey suggested that PCOM write a draft mandate for the new panel, and then a revision will be presented to EXCOM at a later date for formal approval.

There was PCOM consensus on modifying the existing mandate of the Scientific Measurement panel to read "To monitor and recommend development and/or acquisition and/or dissemination of scientific measurements".

Pearce then moved to the timetable and reviewed the agenda papers (starting with p.243). Mével asked if SCICOM had an e-mail vote on the ship schedule. This was confirmed. Discussion moved to the "normal" yearly timetable. Mountain asked about the return of mail reviews back to proponents. He said there should be a filter to oversee the mail review comments, and that it could be addressed by using SSEP watchdogs. Falvey said that the step of clearly articulating selection criteria for what goes out for external mail review will be essential. The timetable on p.242 was then discussed. Natland suggested that a sub-set of the thematic panels be used to decide which proposals should be sent out to mail review, possibly by having meetings in late January 1997. Humphris said that the re-constituted panels will need to see what proposals in the system are mature enough to be sent out. Pearce said that PCOM would have to consider this issue in December 1996. Brown suggested some changes to the calendar on p.241, so that the Scientific Measurements Panel always meets the month before OPCOM. Falvey reminded PCOM that before the mail review occurs, PCOM will have to determine selection criteria. Pearce said that it would be done in the December meeting.

Natland suggested that a sub-committee look at the review process before the December meeting and Mountain said that the reviewers will also require guidance. PCOM accepted this. Sager suggested that the thematic panels be charged with the development of guidelines for mail review of proposals, and of reviewers, that can be presented in PANCH96. Natland said that PCOM can write a document at this meeting to give to the thematic panels for consideration at their meetings later in the year.

Shipley raised the issue of the role of the PPGs. He said that his belief was that mature proposals would all go to the SSEPs and then to mail review, whereas another path was where immature proposals to go through the SSEPs. He commented that where there are no proposals that SCICOM wanted to see, a PPG would be formed. There will probably only be a small number of these. He asked if PPGs could be formed to help groups that are not familiar with ODP? Pearce confirmed this. Mével said that PPGs will be the link between ODP and other programs, but this didn't require further discussion here.

G. FY96 AND FY97 X-BASE UPDATES

1. ENGINEERING AT ODP -TAMU.

a) Hammer drill-in casing update (Leg 174B).

Francis reviewed the purpose of the hammer drill-in system and the timetable. Overall the system is progressing well in tests to date. There are some disadvantages with the current ring-bit systems used on land, but these may be overcome by the use of eccentric retractable bits, although these will only work for the first 50 m or so, they allow better control of weight on bit and do not stress the casing. The latest decisions were reviewed: SDS will develop the large diameter water hammer; eccentric and/or retractable bits will be used, supplied by Holte manufacturing Co.; SDS and Holte are in contact with each other; cuttings will be brought up inside the casing.

The financial aspects of the project were summarised as follows:

	FY96	FY97	FY98	Totals
Project Mgt				10,400
Hammer				740,760
- SDS Phase I	92,000	(est 83% spent)		
- SDS Phase II	<-----508,000 ----->			
- Holte Bits		85,000		
Re-entry cones/hangers				90,132
Running tool				80,806
Sea trial prep				13,520
Totals	230,484	300,814	4,400	$ 935,618
	400,000			

Phase II was more expensive than originally thought and has been funded through savings in the present budget, largely on fuel ($400K). The total cost for Leg 174B will be ca. $925K.

The project is going well and should be on track for deployment on Leg 174B. Sager asked if there was a significant cost over-run? Francis said that he originally estimated $200-300K for Phase II.

b) Other Technology Development Updates.

DCS

The development schedule was reviewed (Appendix 10), and Francis referred to the status report in the agenda books and reported on the DCS design and operation review. The report is currently in draft and will be circulated before the December PCOM. The low-friction seals on the primary heave compensator will be installed at the San Diego port call, so long as the surface finish of the cylinders are still in good shape. The ship is currently being instrumented with the sensors required for the secondary heave compensator and the heave data will be recorded again after the installation of the new friction seals. Francis referred PCOM to the tabled paper on a proposed DCS Engineering Leg in 1998. This will help maintain continuity of the project and staff moral, using Site 735B as a test area. It will also precede the major dry-dock of FY99, which will allow the ship to be modified to bring the drive system to the rig floor for operational and safety reasons. The extra funds required for a DCS Engineering Leg may preclude the use of an ice-boat for Antarctic work. However, such a Leg could not be undertaken before Leg 180 due to the current development schedule.

Sager said that a FY98 cruise would need scheduling in December 1996, which will be prior to any land tests. Francis said that the cost (above that for a standard leg) would be approximately $1.3M. Natland asked if moving of the drive to the rig floor was essential? Francis said that the current system would be very slow, and that the refit of the drive system is considered essential for both operational and safety issues. Francis confirmed that the only site that will be considered in the Indian Ocean is the platform at Site 735B. Moore questioned the fact that the proposals from ODP-TAMU requires that the ship stay in the Indian Ocean for 4 Legs (175-180) at least. Mountain questioned the use of Site 735B? Was it a challenging environment or one where the system would be thought to work? Francis said that an "easy" environment was best for a test of the system.

JANUS

Deployment has been postponed to Leg 171B at the request of the steering committee. Testing and acceptance will done on Leg 172, and warranty support would be available though May- July

1997. It was reported that not all the components of Phase I would be completed within budget, those that would not be were reviewed (Appendix 11).

2. TECHNOLOGY AT ODP-LDEO

Goldberg reviewed the FY96 (BoreHole TeleViewer Data, Well Seismic Tool Data, Satellite Data Transmission) and FY97 (LUBR/LDEO Diamage project, Core Log Integration Platform) projects.

The digitisation of ODP BoreHole TeleViewer (BHTV) data into standard format is now complete. The BHTViewer program is also complete, it will allow users to view the data, adjust scaling and colour palette, print, and edit the header information. In terms of the Well Seismic Tool (WST) data, the translation of all WST data collected by ODP from LIS into SEG-Y format has now been completed. All future WST data collected will be translated into SEG-Y format. Moving to Satellite data transmission, VSAT (256 kbaud) was used for Legs 166-168. The geophysical data can now be processed and returned to the ship within seven days logging in most cases. Inmarsat B (64 kbaud) installation will be undertaken during the Leg 170 port call, and negotiations are underway between ODP-TAMU and ODL.

The Diamage project goal is to integrate core and log image data in FY97/98, and currently the arrangements are being made for software installation at LUBR and LDEO. Also there is an exploration of the hardware options for both ship and shore-based testing using data from Legs 118, 149, 173, and 176. In reporting on the Core Log Integration Platform (CLIP), the updated CLIP software has been installed on the *JOIDES Resolution*, *Splicer* was used extensively on Leg 167 and the *Sagan* prototype was tested on that Leg also. *Splicer* was also integrated into the shipboard JANUS database. The FY97 *Sagan* enhancements include a non-linear alignment of core and depth scales and a mapping function for interrelating core and log data.

McKenzie asked if the satellite system had implications for ship-shore communications? Goldberg said the new system will be data limited, and reminded PCOM that negotiations were underway between ODP-TAMU and ODL.

H. OTHER MATTERS FOR CONSIDERATION BEFORE THE FY98 PROSPECTUS

1) INDUSTRY-FINANCED MINI-LEG IN THE GULF OF MEXICO AND ELSEWHERE.

Francis referred to the agenda book report and reviewed the conclusions of that report: a) transferring APC technology to industry was not straightforward, b) industry participants had specific regional interests (deep water Gulf of Mexico), c) ODP's planning cycle was much too long for industry, which operates on 6-month timelines. If ODP wished to become involved with industry, these time scales will need to be accommodated within the Program.

The CONOCO-Hydril Riserless Drilling Project is likely to go ahead, and ODP-TAMU are considering getting involved in Phase I (at a cost of $50K). The design and construction in Phase II would cost ca. $20M. There will be a requirement for a deep water test ship in about 1998, and the *JOIDES Resolution* is probably the most suitable vessel. Larson asked about the funds for involvement. Francis said that it was not finalised whether commingled funds would be used.

Mével said that there was support for this type of project at the Woods Hole workshop. McKenzie commented that the contribution of $50K was a small amount of money, and that ODP could make such a contribution to the feasibility workshop. Francis said that he would like PCOM to make a statement on this project. Carter said that ODP should be cautious about putting expertise into the project if there is no guarantee of IPR. Falvey said that ODP would be bringing experience to the feasibility study, and the study group report would be confidential to the contributors for a period of three years. Pearce suggested that it would be an ideal issue for TEDCOM to discuss at their next meeting. Falvey said that it was unlikely that commingled funds could be used if the resulting report is to be confidential.

Mountain said that he believed that ODP had engineering expertise to sell to this group. McKenzie said that initially this discussion was brought about as there was a suggestion of a mini-leg to be inserted into the program, she wanted to know the outcome of that issue. Francis said that JOI and NSF would not allow ODP-TAMU to "sell" periods of time on the drilling vessel.

Larson said that only one part of the LITHP community was ready to use riser drilling technology, there was no guarantee that the OD21 would provide a 4 km riser in the first years of that project, and so this should be followed up. Kudrass said that a European group is being established to look into the whole question of riserless drilling.

Lunch ..... *12:47 - 13:55*

PCOM Motion 96-2-4

PCOM requests that EXCOM approve the proposed new JOIDES advisory structure before the December PCOM meeting.

Proposed: Natland, Seconded: Larson *14 For, 2 Absent*

PCOM Motion 96-2-5

PCOM recommends that EXCOM approve the attached implementation timetable for the new JOIDES advisory structure, modified slightly from the version of July 24, 1996. The principal revision is that an interim joint SSEP, comprised of two members each from the current thematic panels, shall meet in January, 1997 to initiate proposal mail review.

Proposed: Natland, Seconded: Moore *14 For, 2 Absent*

Humphris raised the issue of representation if sub-groups of the thematic panels are used, and suggested that there should be four people from each panel. Falvey asked for confirmation that there is no voting? This was confirmed. PCOM discussion led to the suggestion of 8 members in total. Larson said that there could be a large number of proposals to be sent out. Moore agreed that the proposals will be quite mature and so this could be the case. Humphris said that she thought that the total number sent out for external review should be culled to 10-20 at most. Ellins said that there are already the global rankings and there will soon be the fall rankings for the groups to base their findings on. Twenty would be a reasonable number. Larson said that the issue of representation will become important if there are a low number of proposals sent out for review. Pearce said that here PCOM is simply trying to get the panels to get a sub-set of their membership alerted to this. Brown suggested that PCOM ask the panels to suggest four names and then PCOM could choose the actual individuals in December.

PCOM Motion 96-2-6

PCOM directs each thematic panel to recommend four of its members to serve on an interim Scientific Steering and Evaluation Committee to meet once, in January, 1997. The panel is to specify which of the proposals received and current as of January 1, 1997, should be sent out for mail reviews, based on guidelines which PCOM will establish at its meeting in December, 1996. The reviews need to be completed in time for the initial meeting of the new Interior and Environment SSEPs in May 1997.

Proposed: Natland, Seconded: Sager *16 For, 0 Against*

PCOM Consensus 96-2-7

PCOM expresses its enthusiasm for industrial company consortium plans to design and build a deep "riserless" drilling system that could provide pressure control and return flow for a deep hole drilled below at least 4 km water depth. PCOM asks JOI to continue to seek ways and means by which ODP interests could join at least the feasibility phase of this consortium, so that we might consider incorporating such a system into future ODP drilling plans.

2) PROPOSAL 79.

Ellins said that PCOM was asked to consider this proposal as it was inadvertently left off the active proposal list. She wanted PCOM to make a clear statement to the proponents of its level of interest.

Larson asked if SSP would rank it highly. She replied that she could not answer. Larson said that at present the proposal is not ready, but it is an interesting proposal looking at paleoceanography of the Mesozoic. It is potentially the only site for looking at the boundary conditions of how East Tethys fits to the Pacific. Francis commented that ODP-TAMU has been looking for the opportunity to drill a 3 km hole for some time, and this is one location that it would be possible. McKenzie reminded PCOM that it has in the past asked the panels to look for deep holes, and that at one time

this proposal did have strong interest from SGPP. Kudrass said that a site survey in this region has been withdraw because the proposal was not highly ranked, and therefore the site survey proposal was not highly ranked within Germany. Natland said that there is information on the site summary page, and so there must be data somewhere. Shipley replied that he did not think that there was good velocity data. Mountain responded that there are 50 sonobouys in the area and there is abundant velocity data in the region. McKenzie reminded PCOM that this was a revised proposal. Sager reminded PCOM that there was no support from the thematic panels. Pearce said that PCOM should see how it fits into the LRP. There are several potential deep drilling sites in the W Pacific. Francis replied that the first deep drilling capability test of the *JOIDES Resolution* should not be on an active margin. Pearce said that the discussion is now beginning to sound more like an Engineering Leg. Francis replied that it would be firstly a science leg, then a *de facto* engineering test. Pearce asked PCOM to indicate if this proposal should remain under consideration for the prospectus. Mountain said that SSP should be tasked to look at this at their fall meeting. McKenzie said that just because the panels have not ranked it highly does not mean that PCOM should not consider it.

Pearce called for a show of hands: nine PCOM members were in favour of considering it in the prospectus discussions, with six abstentions.

3) LOI 72.

Pearce opened the discussion by saying that this was a legitimate way to put forward a proposal. Malfait asked if the proposal was submitted as a scientific proposal or as a subcontractor proposal. Goldberg said that it was submitted as a development proposal. Pearce said that this is a contingency in case the hammer-drill casing did not go forward. McKenzie said that PCOM already passed a motion dealing with any time that comes available in case the hammer system did not work.

Mountain asked if the hammer test was passed through TEDCOM? Pearce said that it was considered by all panels. Mountain said that PCOM are being asked to re-consider motion 96-1-9. PCOM agreed that there was already a contingency, but also agreed that DMP and LITHP be asked to review the proposal in the fall. Natland asked for clarification of what was to be done during the Engineering Leg?

Goldberg responded. He referred PCOM to the agenda papers. The proposal is a test of 2nd generation LWD tools, that require no modification from the standard industry specifications. As the tools are off the shelf, the lead time is now brought down to only three months.

Ellins said that the proponents of Proposal 476 are aware of the possible selection of alternate sites for the New Jersey leg and they have suggested that the Proposal 476 sites should be considered as alternates. Also that proposal now involves measuring while drilling whereas the original was logging while drilling. PCOM did not support this idea.

4) SOUTHERN HEMISPHERE OPERATIONS

Pearce said that this was put in to consider "latitudinal" readiness. In the prospectus there will be high latitude proposals and low latitude proposals and PCOM should return to this item after the discussion of site survey readiness.

I. FY98 PROSPECTUS

Larson raised a conflict of interest issue and referred PCOM to p.174-175. Under item (c), the last sentence was not present after the discussion in Aix-en-Provence. The following items of discussion may mean that some members are required to leave the room.

1. 1996 GLOBAL RANKINGS.

Conflicted members are:

Roger Larson 472 Izu-Mariana

Kiyoshi Suyehiro 431 Generic Seismic

Alan Mix 465 S E Pacific

Greg Moore 445 Nankai, 450 Taiwan, 447 Woodlark

LITHP

448 Ontong Java - not ready

480 Caribbean - wrong area

481 Red Sea - clearance initiatives ongoing - Francis said that these are unlikely in his opinion. - Humphris presented. Hydrothermal aspects, to look at formation of mineral deposits and also to look

at incipient rifting. The sediments of the region are also very unusual and would give exciting results. Also basement and stockwork are drilling targets.

451 Tonga Forearc - Pearce - to look at evolution of the forearc through the sediment sequence, and look at the ophiolite model that forearcs are more representative in ophiolites than deep ocean crust.

Seismic Boreholes Generic - not discussed. Mével said that this involves emplacement of a seismometer in the Indian Ocean and only involves about 10 days of drilling.

457 Kerguelan LIP - Sager - has been highly ranked by LITHP and large LIP community interest. Little is known about LIPs and they can be drilled very easily with the *JOIDES Resolution*. Larson - 3 sites on oceanic crust, from Leg 120 drilling, some of the south Kerguelan Plateau may have continental affinities and one hole is dedicated to test this. It would be a one leg, six-site reconnaissance drilling program. Sites tend to the southern part of the plateau.

472 Izu-Mariana - Pearce - to get an idea of the budget of what is going down the subduction zone, especially at the base of the sediment section. Aim is to deepen Site 801C to penetrate basement and to drill complementary sites.

426 Australia - Antarctic Discordance - Humphris - in an area with a distinct boundary between mantle of Indian/Pacific sources. The boundary may migrate and the idea is to drill off-axis to try and understand this major structure.

OHP

464 S Ocean Palaeoceanography - Mix - site survey cruise was successful. Belongs in the prospectus.

441 SW Pacific Gateway - looking at deep water flow into the Pacific. SSP package is submitted with an additional cruise in Feb. 1997. It is viable for the prospectus.

465 - Mix conflicted - location is off Chile.

367 - Cenozoic Carbonates in the Gt Australian Bight - off south Australia, interest in sea level and Cenozoic paleoceanography, some shallow water sites. Good site survey data, should be viable for prospectus. McKenzie - interesting environment not well studied, temperate water carbonates.

E Asian Monsoon - immature.

485 - Depth transect across Tasman Rise, similar to Cenozoic Carbonate in palaeoceanographic objectives. Some deep penetration holes for this type of study.

449+488 - Mesozoic Weddell Sea - not an ANTOSTRAT proposal. Mesozoic black shale focus and Neogene history of water masses. Has weather and ice constraints associated with the proposal. Not ranked near top of Antarctic DPG list.

452 - W Antarctica - ultra high sedimentation rate, quadruple HPC for rapid climate change studies. Could be done after sub-Antarctic transect leg (March - April).

SGPP

481 - see above

445 - McKenzie - two legs, not back to back, would complement Barbados studies.

ANTARCTIC DPG - see DPG report.

367 -

476 - Hudson Apron - out of area.

TECP

450 - Shipley -

447 - in previous prospectus, should be in this too.

431 - W Pacific Seismic Network - First of eight areas ready to go. Some problems with Site Survey requirements.

445 - Nankai - either one or two legs, a follow-on from previous legs. Comparison between decollement and deformation of the section.

442 - N Mariana Rift - rift to drift in an opening back-arc. Not ready for FY98.

484 - E Asia Monsoon - very immature proposal.

451 - Tonga forearc - see above.

2. SITE SURVEY READINESS.

Ellins reported and reviewed the SSP readiness ratings which were in the tabled SSP minutes.

Regarding Proposal 426, Mix reported that the site survey cruise was not successful, and the seismic reflection data is not clear in terms of defining sediment thicknesses. Sidescan data is available and shows sediment ponds, however there is a question of whether the sediment ponds are deep enough to enable spudding-in. The *JOIDES Resolution* could be used to define the sediment thickness as it approaches the sites.

Humphris asked about the proposals that were in last years' prospectus that are now ranked 2C by SSP. Kudrass said that for Proposal 481, the cruise has not actually been scheduled, so it moved back from 2A to 2C. Ellins said that in fact it means that the data submitted to the SSDB is not actually as good as SSP thought it would be. Also it depends upon the information fed to SSP by proponents, which can be inadvertently misleading.

Pearce suggested that categories 1A and B, and 2A should be considered ready, and the rest will be discussed if required. It was then decided that those proposals that are clearly not ready should be removed from consideration rather than take up time on discussion.

PCOM took advice from the Science Operator, based on information from the US State Department, and an e-mail from John Ludden, and removed Red Sea Deeps from consideration for the FY98 prospectus. Francis asked, and PCOM agreed, that a DCS Engineering Leg be considered for the Prospectus.

Coffee.....15:58 - 16:27

Mével announced an Australian cruise scheduled for Kerguelan in February 1997, and said that this proposal should move up in SSP rank to 2B.

3. CONTENTS OF THE FY98 PROSPECTUS.

Natland outlined for PCOM the proposals that remain in consideration for inclusion in the FY98 drilling prospectus. Pearce reminded PCOM that conflicted proponents will be expected to leave the room. Carter, Moore, Larson and Suyehiro left the room.

Humphris asked why the Antarctic Peninsula was being considered when it was out of the area defined in the four-year track. Pearce and Mix reminded PCOM that the Antarctic DPG, which PCOM set up in the first place, requested that PCOM consider the Antarctic Peninsula proposal despite it not being along the outline four-year plan Pearce asked if PCOM was happy with the remaining 13 proposals as a starting point. Mix said that proposals 426 and 485 should also be considered. Mével said that the generic Seismic Borehole proposal includes a hole in the Indian Ocean and that as this only requires 10 days of drilling it should be considered. Ellins reminded PCOM that it could be inserted by the thematic panels

The proposals were then evaluated for their relevance to the LRP themes (I=Climate change, II=Sea level change, III=Fluids etc, IV=Transfer of heat and materials, V=Deformatoin, Initiative 1= Rapid climate change, Initiative 2= Observatories, Initiative 3= Deep drilling, P=Biosphere).

79 Somali Basin - I, III, Initiative 3

367 Cen Carb Gt Aust Bight - I, II, III

431 W Pacific Seismic Network - IV, V, Initiative 2

441 SW Pacific Gateway - I

445 Nankai - III, V, Initiative 2

447 Woodlark - V

450 Taiwan - III, V

451 Tonga Forearc - IV, V

452 ANT Plan 1 - I, II, Initiative 1

457 Kerguelen - IV

464 Sth Ocean Paleoceanography - I, Initiative 1

472 Izu-Mariana - III, IV

485 Australia - Antarctic Southern Gateway - I

490 ANT Plan 3 - I, II, Initiative 1

DCS Engineering - Technology

Pearce summarised by saying that all the proposals are drill-able and relevant to the LRP. One possibility to prioritise is to look at which ones the ship can realistically pick up in FY98. Falvey commented that PCOM should bear in mind that the 5-year plan is to be constructed and that PCOM could use all 15 of the proposals in that plan.

Pearce asked if 464 and 503 could both be drilled in the Austral summer? Mix reported that the DPG said that the Antarctic Peninsula is drill-able between early January to late April, and Prydz Bay from mid-January to mid-March. ODP-TAMU reserved judgement on the need for an ice-boat on the

Antarctic Peninsula, but noted that it will be essential for Prydz Bay. The Kerguelan weather window is February - March, and will not stretch to late April.

Mével suggested cutting off the most distant proposals as they are logistically unreasonable. Natland said that the Antarctic legs should not be included due to logistics. Barrett said that ANT Plan 1 was the most mature and was the most sensitive to climate, but in scientific terms, the Prydz Bay was the most important, despite the site survey cruise yet to be run (February 1997). The weather window is mid-January to mid-March.

After a brief and inconclusive discussion, Pearce suggested that PCOM break and discuss this outside the meeting and come to a decision tomorrow.

Adjourn *17:48*

Wednesday 21st August 1996 ***08:45 am***

Pearce said there are two models to consider, Natland will present. Option 1 was to produce a southern hemisphere prospectus, which allowed two Antarctic legs to be undertaken over two years. Concerns were raised about the presumption that the prospectus would be built upon the basis of the DPG reports when the thematic panels have not ranked those reports against the other proposals. Option 2 is to include the proposals above the equator, and ask for TEDCOM comment on DCS , and use an Antarctic drilling plan instead of the Prydz Bay proposal. Pearce said that the proposals above the equator are high priority and are very likely to be drilled at some point. He reminded PCOM that SSP finds looking at more than 12 proposals excessive in terms of that panel's workload. He said the northern hemisphere proposals could then be scheduled in FY99. Natland said that SSP would only have to spend minimal time on the 1A and 1B ranked proposals. The panel would have to look in detail at Prydz Bay and the Antarctic Peninsula. Mountain commented that SSP can bring in additional help should they need it for particular meetings. Also if the northern hemisphere proposals are excluded, after the panel rankings then there may not be enough highly ranked proposals to schedule. Shipley said that PCOM must be aware that the panels could give only one Antarctic proposal a high ranking and so all the proposals should be left in. Pearce asked if there was support for the equatorial cut-off? PCOM were not supportive of this. The Antarctic DPG drilling plans will be looked at by SSP and the thematic panels.

Shipley wanted to address the issue of where else the DCS leg could be drilled apart from Site 735B. Pearce said that ODP-LDEO wanted to test some tools and therefore he proposed that this be a Generic Engineering Leg. Pearce told the subcontractors that a Generic Engineering leg proposal should be submitted to the JOIDES Office by 20 September. Mountain said that was essential to outline site survey requirements for the SSP review. McKenzie said that originally, it was suggested that the DCS test be done near to the US to avoid large shipping costs. Francis said that the system must be tested to maintain the momentum of the project. Natland said that Site 735B was the only place in the Indian Ocean where the site survey data exists, but there are areas in the W Pacific. Pearce said that PCOM required options for testing. Mountain said that this should have been presented in the agenda book, it is far too large an item to be presented following a number of tabled papers. Mountain said that PCOM are committed to get the system on-line. Pearce said that PCOM must have something to balance against the scheduling of the DCS test leg.

PCOM Motion 96-2-8

The contents of the FY98 Prospectus and initial long-term Planning Prospectus to be considered for Thematic Panel ranking shall include the following proposals and programs:

79 Somali Basin	367 GAB Cenozoic Carbonates
431 W Pacific Seismic Network	441 SW Pacific Gateway
445 Nankai Trough	447 Woodlark Basin
450 Taiwan Arc	451 Tonga Forearc
457 Kerguelen LIP	464 S Southern Ocean Paleoceanography
472 Izu-Mariana	485 Australia-Antarctic Southern Gateway

Antarctic DPG 1, 2, 3

> Additional programs may be considered by the panels at their discretion. A DCS/LWD Engineering Leg is also to be considered by PCOM for scheduling. The panels and TEDCOM are asked to comment on this proposal, which is included for information in the prospectus.

Proposed: Natland, Seconded: Sager *12 For, 0 Against, 4 Abstentions*

4. PCOM WATCHDOG ASSIGNMENTS.

451 Tonga Forearc	Julian Pearce
431 W Pacific Seismic Network	Paul Johnson
457 Kerguelen	Will Sager
472 Izu-Mariana mass balance	Jim Natland
367 Cenozoic Carbonates	Judy McKenzie
464 Southern Ocean paleoceanography	Alan Mix
441 S W Pacific gateways	Hermann Kudrass
485 Southern Gateways	Greg Mountain
445 Nankai Trough	Kevin Brown
450 Taiwan	Tom Shipley
447 Woodlark	Tom Shipley
79 Somali Basin	Jim Natland
Antarctic DPG	Hermann Kudrass, Greg Mountain, Alan Mix
Generic Engineering	Paul Johnson

Humphris said that as incoming PCOM chair, she expected the watchdogs to communicate with proponents and understand the proposals so that they can present their opinion and answer questions. Panel Chairs would present proposals in the context of their rankings, and the PCOM members will be expected to justify how the proposal fits into the LRP. It would essentially be an evaluation that is required from the watchdogs. Francis said that ODP-TAMU would submit a technological justification of the need for deep drilling.

J. 5-YEAR SCIENCE PLAN

1. EXCOM AND NSF REQUIREMENTS.

Falvey presented the JOI view of this exercise. The 5-year plan is required by NSF by March-April 97, slightly ahead of the normal submission of the annual Program Plan. It will have the same contents as a draft Program Plan with extended out-years to show where the science is going, in less and less detail, through the end of Phase III, and it will include engineering requirements. The first year's science plan can be determined in December, although the budgets will need to be examined by the operators, and provisions for an ice-boat (ca. $1M) may have to be built in for the next two years. This will have a large impact in the X-base, which, at the same time will have to ensure continuity in projects such as JANUS and DCS.

For the moment PCOM needs to produce a plan along the lines of the LITHP model (p.351 in agenda book). The 1-page descriptions are rationales for the plan and the outcome of each type of science. It should include the engineering requirements and links to global programs. Mével asked how the results of workshops can be included in this plan. Falvey said that this is the Planning Committee, it must produce a forward plan, the LRP already includes input from the outside community. Part of he plan will form the FY98 Program Plan that will go to EXCOM in February 1997 for approval, and then on to NSF.

Pearce then asked PCOM to break into working groups to produce their initial 5-year planning matrix.

2. PCOM DISCUSSION OF SCIENCE PRIORITIES.

PCOM re-convened and the lead individuals of the sub-groups outlined the aims and rationale of the initial 5-year planning matrices of each group.

Climate Change - Alan Mix

Sea Level Change - Greg Mountain

Sediments, Fluids and Bacteria - Judy McKenzie

Transfer of Heat and Materials - Jim Natland

Deformation - Kiyoshi Suyehiro

Adjourn *12:40*

Thursday 22nd August 1996 ***09:00 am***

J. 5 -YEAR SCIENCE PLAN (CONTINUED)

2. PCOM DISCUSSION OF SCIENCE PRIORITIES (CONTINUED).

Pearce presented an outline of his perception, after talking to all the groups, of what the final matrix might look like. He said that the details will be discussed later, this is a first look for discussion. In this proposed plan, a number of the sub-themes will be addressed on the same legs, so that although initially it looks as though there are far too many legs, in fact that will not be so. At present there are 43 legs, with only 30 slots. He asked if PCOM was happy with the format as outlined.

McKenzie was concerned that there were no sedimentary processes objectives in the matrix as outlined. Mountain said that the sedimentary processes community is very large and it must be included. Carter commented that it may be because sedimentary processes were not specified in the LRP. Mével said that monitoring of active ridge processes is also absent. McKenzie commented that this document looks to be very specific rather than the working document that she thought it would be. Falvey said that the document must set out what ODP thinks it will do; It will not be a completely fixed plan, but it must try to identify what will be required and drilled over the next 5 years; SCICOM can revise the plan later, but an initial plan must be forthcoming now.

Mountain asked if this is open for discussion and can be modified? Pearce said that he wants the sub-groups to re-cast their documents into the form that he has outlined, and then there will be a discussion leading to approval. Larson asked how locked PCOM will be in outlining such a plan? He commented that probably over 50% of the plan, as it is presented here, will be drilled. Falvey confirmed that this was probably true. He reminded PCOM that ODP was asking for the commitment of one-quarter of a billion dollars, and therefore such a forward plan is essential. The plan will not be rigid, certainly for the end of Phase III. PCOM must also, in the same document, outline where the state of knowledge will be when this plan has been achieved. Natland commented that there seems to be a lot of themes, and he asked if ODP will be at the point where we will have fundamental answers for some themes, or if the Program will have only partial answers. Pearce suggested that each theme will require a statement of objectives, a mechanism for implementation and the likely outcomes by 2003.

Francis commented that ODP has to produce a costed 5-year plan, and said that if the 5-year plan is not well-defined it will be impossible. Falvey said that by December the FY98 program will be defined, and, moving to the later years, by looking at that program ODP can say that it must finish DCS and test and use it, and therefore JOI can add the necessary additional X-base budget, even though the ambiguity may be ±50% in 2002. Malfait reminded PCOM that several plans have been requested, at different budget levels. Sager said that conceptually the standard leg model can be used to help the budgetary planning for this process; a minimum will be standard legs and a maximum will include X-base and inflation. Pearce said that he wanted PCOM to focus on the science. Francis said that the science depended upon the affordability and he did not understand where that consideration would be made. Pearce said that once PCOM have outlined the plan, JOI can look at the budget requirements and report back to PCOM in December. Malfait said that the budget scenarios will be required prior to the February 1997 ODP Council meeting. Francis said that he wanted it recorded that ODP-TAMU are a very stretched organisation and he believes that it may be asked to do things that it does not have the manpower to achieve. Falvey and Pearce reminded PCOM that the sub-groups should also include the links to other programs and technology requirements.

PCOM again broke into sub-groups to refine their initial outlines.

Coffee ..... *10:15 - 10:30*

3. CONSENSUS ON 5-YEAR PLAN AND PRODUCTION OF PHASE III PLANNING MATRIX.

Pearce said that as a group PCOM should approve the matrix and the JOIDES Office would produce a neat and coherent document for forwarding to JOI after PCOM circulation and comment.

Climate Change (Mix) : slight name changes to those presented earlier, some experiments would use sites of opportunity. Other programs would overlap. McKenzie asked about where the high resolution studies would be concentrated? Mix said that these would be general high sedimentation rate areas. McKenzie said that carbon cycle could be added to these programs. Mountain commented that global circulation studies of ancient times could be included and that these studies may require technological development. Pearce asked if PCOM took this presentation as approved? There was no dissent.

Sea Level (Mountain) : testing global sea-level and sequence stratigraphic models. Shallow water drilling will be needed to achieve the goals of the sequence stratigraphic models. Core recovery and dating techniques will need to be refined. Mével asked about the involvement of DCS? It may be required for atoll and guyot studies. Pearce asked if PCOM took this presentation as approved? There was no dissent.

Fluids and Bacteria (McKenzie) : modest program that may use results from other legs. Deep biosphere will be exploratory up to 2000, using holes from other programs for initial studies and development of techniques. Direct link with fluid flow. Technological requirements would include a geomicrobiology laboratory on the ship. A biological observatory would be required around a drill hole by 2003. Gas Hydrates will be examined on convergent margins with other programs. Continued development of sampling techniques (PCS etc). Proposing a global fluid initiative to work alongside other programs. Some dedicated fluid flux legs may be required. Observatories and long-term sampling systems will require further technological developments. Five dedicated legs required and attachments to ca. 20 others. A number of connections to global programs. Pearce asked if PCOM took this presentation as approved? There was no dissent.

Heat Mass transfer (Natland) : ION global network added (global sites), additional LIP leg has been added to allow more than one to be examined and one to be examined in detail. Offset drilling has also been added (deep drilling). At least five legs will be required for a significant advance of knowledge. DCS has great relevance for hydrological process and zero-age drilling, but the system is not just for lithosphere objectives. Fluxes could be addressed in conjunction with other programs. Pearce said that the added leg could be a multi-objectives program. Casing and re-entry installations will need development (for up to a couple of hundred re-entry's for very deep holes). Pearce asked if PCOM took this presentation as approved? There was no dissent.

Deformation and earthquakes (Suyehiro) : for orogeny studies there was a slight change from the original matrix. The total number of legs has not changed, technology requirements include deep drilling. Active studies require LWD, CORKing and observatories. Drilling may not require five years but observatories will. Deep deformation objectives would be in the latter part of Phase III, and could be regarded as part of OD21 site characterisation. There are many links to other programs. Existing proposals have been identified. Brown said that in-situ long term stress measurements could be a required development. Mountain asked if earthquake process included effects such as tsunamis? This was confirmed. Mountain replied that this was linked to sedimentology studies. Pearce said that links to ocean crustal studies would occur in the deformation project (ridge structure). Francis asked about deep holes. Suyehiro said there would be two (two legs each). Pearce asked if PCOM took this presentation as approved? There was no dissent.

Pearce reported that these originals will be combined by the JOIDES Office in early September. It will be sent to PCOM and JOI simultaneously and substantive comments would lead to revision. Ellins said that it has to be at JOI by 15 September. Pearce said that PCOM comments should be sent to Woods Hole. Humphris asked what JOI would do with the plan. Falvey said that JOI would produce a draft 5-year plan for PCOM to review in December. EXCOM and ODP Council want to look at the implementation plan with details of budgets and alternates budgets, thus it has to be finalised by mid-January 1997.

Mix asked how the necessary reduction in legs will take place. Falvey said that he will work with the PCOM chair for an outline that can be reviewed by PCOM. Some projects may have to be postponed to Phase IV.

K. OLD BUSINESS

1. PUBLICATIONS POLICY.

Falvey said that publications policy must be tightened and that has now been done with PCOM input from a sub-committee. The EXCOM have asked for clear indications as to how cost savings may be achieved to put into innovation, and there was also the NSF Inspector General's Report as

background to this issue. The policy was reviewed for PCOM (papers were supplied in the agenda book). The broad framework has been approved by EXCOM.

The target implementation schedule is what should be considered by PCOM. The *Initial Reports* volume is the contentious issue. The reason for the proposed transition point was that it would give the maximum cost savings. Falvey presented an alternate plan with the same net savings, but said that this alternate would involve an additional expenditure of ca. $2M as the changes in policy will not be implemented at the optimum time. He re-iterated that milestone checks and balances will ensure that implementation would be delayed to ensure that ODP is just behind what is acceptable practice in the outside world. A steering committee would be appointed to advise on the implementation of the policy; it would not necessarily have to be proportionally representative, it should be a mix, of users and people within the electronic publication industry.

Pearce said that the context was that USSAC were not happy with the proposition, and a straw poll showed that this would be a unanimous view. Larson has discussed the situation with Falvey and hence the suggested compromise outlined by Falvey. He wanted comments on approval of the implementation.

Sager said that PCOM has a year to decide about the *Initial Reports* and two years to decide about the *Scientific Results*, and whether this could be an ongoing window? Falvey said that he simply reports the issues to PCOM and policy to EXCOM and sees what the recommendations from the steering committee will be in the context of outside common practice. Natland said the Inspector General's Report projected a substantial saving, and he asked about the DSDP-type option discussed at Aix-en-Provence. Falvey said that option worked out to be slightly more expensive. Falvey reviewed the projected costs savings for changing or eliminating ODP Publications (Appendix 12).

Pearce said that EXCOM have approved the strategy, and PCOM should use its time to influence the implementation.

Sager commented that the sub-committee was presented with the scenario that there is a constant fine tuning that does actually save small amounts of money. To make significant savings in publications there has to be a switch to electronic versions. The original implementation plan was slightly different from that presented, but ultimately money will need to be found to retain publications as they are. Carter said that PCOM should be asked where it would save $0.75M in the Program, as that is the amount that will be saved by this proposed change. Francis said that publications will only drop in cost once the publications actually cease, and that will not be this or next year.

Natland said that it seemed as though EXCOM had told ODP to take $750K from publications. Falvey said that was not so. EXCOM have approved the publication strategy, and that has the effect of saving $2/3M. Falvey said that this was recommended to EXCOM by the PCOM sub-committee and JOI. Pearce reminded PCOM that it can change the implementation strategy. Humphris asked how PCOM could influence the strategy? All that seems possible is that savings could be moved forward or backward in time. Falvey said that if Larson had not begun the debate, JOI would already have formed a steering committee and they would likely have made the recommendation already alluded to by Larson's model. Humphris commented that it would be a mistake to shorten the time the *Scientific Results* are in hard copy, as this was where most data from shore-based studies will go. The community may not be ready for this. She wanted to go with the original (JOI) proposal. Pearce said that one approach was to go with the original proposal and another was Larson's model.

Larson felt it was more important to retain a hard copy of the *Initial Reports*. He was willing to give up the *Scientific Results* as the rubicund has already been crossed when PCOM agreed that papers can now be published outside literature after 12 months. He referred PCOM to the text on P.52-53 in the agenda books. Humphris said that another concern of hers was that both of the Publications Subcommittee reports indicated that there was a lot of value in the *Scientific Results*. McKenzie said that ODP publishes paired volumes and that they should both end at the same time. Sager said that it was simply that continuing the *Scientific Results* was a commitment for another four years.

Natland said that he did not think he would be able to sway people to contribute articles to an electronic publication, and the consequence would be the total destruction of the *Scientific Results* volume. Mével agreed that the decision was actually made when PCOM agreed to the one-year post cruise publication, and she said that the data would still exist. Pearce said that it does seem as if an electronic publication format would allow and encourage people to put their data into electronic format, but there must be a way to ensure that the data is published.

Carter said that Natland's point was key, and that it would be a management problem in ensuring that the key archival data gets published. Pearce said that PCOM has to decide on the implementation schedule first and then it can take care of the worries expressed by Natland and Carter.

Sager commented that this issue must be closed as it affects the current cruise and the staff at ODP-TAMU. He would not have a problem in writing an extended abstract with all his data in electronic version, outside papers are prepared in electronic format anyway and would be easy to send in for inclusion in an electronic version. Mix commented that in the policy as stated, it will require a new development of JANUS, therefore it is really a cost-shift of money moving from publications to innovation. Therefore the issue is really how ODP wants to deliver information. Mountain asked if JOI and ODP-TAMU were certain that there would be no copyright problems with electronic publications? Falvey said that there are protocols for this currently being developed. Humphris said that with the *Initial Reports*, it may be better on a CD, and it will be less "painful" than transition to the *Scientific Results* on CD. ODP should give itself as long as possible to get the community aware of the transition.

Lunch ..... *12:47 - 13:38*

Pearce said the first issue is a straight choice between the implementation as per the agenda book papers, or the amendment suggested by Larson. McKenzie said that ECOD wanted to keep the volumes, but she believes that in this transition phase the *Initial Reports* is the one to keep. Pearce called for a vote on which strategy would be followed. 5 members wish to have the implementation strategy as proposed with immediate cessation of the *Initial Reports*, 6 wish to use the Larson modification of continuing publication of the *Initial Reports* instead of the *Scientific Results*, and there were 5 abstentions. PCOM then considered the following motion:

PCOM Motion 96-2-9

PCOM reaffirms its intent in PCOM motion 96-1-13 to continue for the immediate future to publish the basic information of ODP in both text (hard copy) and electronic formats in order to archive and display this information in the most certain and visible manners available to us at present. However, PCOM also agrees with the general philosophy that publication technology is moving towards universally compatible electronic formats.

Publication of the basic information in this format in an *Initial Reports* volume will consist of the site summaries, operations reports, site chapters, one scientific overview authored by the co-chiefs, and a guide to electronic usage. Other items specified in 96-1-13 for electronic publication, section 3 B (e.g. core descriptions, VCDs, etc.) will remain in electronic-only format and will be published 12 to 18 months post cruise.

PCOM acknowledges the need for additional cost savings over the original form of motion 96-1-13 and therefore propose that the *Scientific Results* volume consisting of scientific papers, texts of data reports, and abstracts of papers published outside of ODP, be published in electronic format only, starting with Leg 169.

Electronic publication of the *Scientific Results* volume should be 48 months post-cruise. The publication of the *Initial Reports* volume, 12 to 18 months post-cruise, in text form will alleviate the need for an initial core description volume as described in 96-1-13, section 5, and this will achieve further cost savings.

ODP must continue to re-evaluate its publication options as technology and scientific community attitudes evolve, but should continue to publish the *Initial Reports* volume in both text and electronic formats for the immediate future. The issue of moving to electronic-only publication of the *Initial Reports* volumes should be continuously reviewed by the JOI Publications Steering Committee and SCICOM.

Proposed: Larson, Seconded: McKenzie *8 For, 1 Against, 7 Abstentions*

Natland asked about ERB's, Mével said that it could be addressed by the Publications Steering Committee. Falvey said that he wanted suggestions for names for members of the steering committee. Warner Bruckmann was suggested by Kudrass (seconded by Shipley and Sager). Names would also go from national committees.

PCOM Motion by Acclamation

PCOM expresses its thanks to Bob Carter, Susan Cook and Rachel Grieve for hosting PCOM in Townsville and the field trips in Cairns. The Townsville venue was comfortable and efficient for the conduct of the meeting. The field trip before and during the meeting allowed us intimate familiarity with things uniquely Australian, ranging from the Great Barrier Reef to Koala bears.

We return home across the equator with fond memories of friendly Australians, and in our best Australian accents, say "good bye" and "good on yer, mates".

2. CONFLICT OF INTEREST.

Falvey referred PCOM to the report in the agenda book. Larson commented that the wording was essentially the same apart from section 11.04 (C).

3. DIFFERENTIAL GPS ON JOIDES RESOLUTION

Francis referred PCOM to the tabled paper. He said that a Russian system would be available for a one-off cost of ca. $10-20K. However, ODP-TAMU believed that the present system was more than adequate for current operations, especially when considering the ship-pipe offset is not taken into account. Also there is no truly global system is available and acoustic beacons are still required for the DP system.

Mountain questioned the number of legs that require such high precision. Francis said that Leg 174A is one, but in general high accuracy is not required. Satellite DP is used in combination with acoustic beacons, satellite systems are never used alone. Larson asked about using systems that can avoid the dither on GPS. Francis said that as *JOIDES Resolution* was not US-flagged, it was a problem. Falvey said that Admiral Watkins has this as a priority.

Francis said that this perceived problem may be resolved by better liaison between ODP-TAMU and SSP, and PCOM should urge that dialogue be improved between the two bodies.

L. NEW BUSINESS

1. WORKSHOP ON RISER DRILLING SCIENCE, JAPAN. STEERING COMMITTEE NOMINATIONS.

Falvey reported on the engineering workshop, and announced that Takagawa has generated a second circular for the meeting.

There are "Model Holes" required to define the boundary conditions for engineers to begin their detailed designs. Details required are lithostratigraphy (fractures, faults) interstitial fluids, pressures, water depths, temperature. Humphris said that the thematic panels developed a set of holes for a similar purpose about four or five years ago, and that maybe these could be built upon. Falvey said that these were not adequate as they did not contain all the parameters required.

Nominations are: Passive margins (Joel Watkins), Deep Ocean Basin sediments (Yves Lancelot), Convergent Margins (Tim Byrne), LIP (Hans Christian-Larsen), New Ocean Crust (Rody Batiza), Older Ocean Crust (Roger Larson).

The ODP aim should be to widen the discussion from a fixed 2500 m riser system, so that the engineering is based upon the science rather than vice-versa.

Suyehiro then reviewed the timetable for COSOD-R, which is to be co-hosted by STA and JOIDES. He said that an international steering committee must be set up very soon and it should meet in October of this year. He would like to have names of nominees today if at all possible; 7 or 8 Japanese and the same number of non-Japanese. Each member can have one representative and the US could have more. Pearce said that there could be continuity with the engineering meeting. Mével said that maybe the steering committee members should be a mixture from inside and outside the ODP community. Suyehiro said the steering committee would write a position paper as well as being a steering committee. The present thematic panel chairs could go for ODP. Pearce said that the UK was considering Alister Skinner. Kudrass said that he could not contact his funding agency so he could not make a nomination. McKenzie said that perhaps PCOM should be considering names for a steering committee co-chair who could then look for other members, possibly with a list of three or four. Joe Cann (1), Jamie Austin (2), Mark Zoback (3) were proposed. Pearce said that national committee representatives should pass names to Suyehiro once they return to their own countries.

2. PCOM CORRESPONDENCE.

Pearce referred PCOM to the letter on p.367 of the agenda book. Mix reminded PCOM that there was a request for IMAGES to address JOIDES. Humphris agreed to deal with this.

3. FUTURE MEETINGS.

Time	Place	Host
8 December (PANCH96)	Biosphere, Arizona	Mountain
10 - 13 December 1996	Biosphere, Arizona	Mountain
14 - 17 April 1997	College Station, Texas	Francis
18 - 22 August 1997	Davos, Switzerland	McKenzie
February 1998	Seattle, Washington	Johnson
August 1998	Durham, UK	Pearce

4. NEW PANEL MEMBERSHIP AND CHAIRS.

Mével said that this should be the responsibility of SCICOM. Pearce said that national committees and the thematic panels could also be consulted. Mix said that PCOM should ask the thematic panels to suggest names for the membership of the SSEPs. Pearce agreed to write to the panels with this request.

5. PCOM LIAISONS.

PCOM will retain its current panel liaisons for this last round of thematic panel meetings.

6. PCOM CHAIR TERM OF OFFICE.

Humphris said that three years would be better than two, but that there would have to be a mechanism to ensure that the SCICOM chair would have an easy way back into science. Pearce suggested that PCOM members discuss this with their EXCOM members and it can be re-visited in December.

M. ANY OTHER BUSINESS

Natland said that there will be an e-mail discussion regarding the external proposal review criteria, and it will be returned to in detail in December.

PCOM Motion by Acclamation

PCOM thanks Henry Dick for his years of service on PCOM, and especially notes his contributions to long-term planning, his efforts to refine ODP publications, and his attempts to convince us that the answer to all important scientific problems is "735B". We wish him luck on upcoming Leg 176 and anticipate his continued contributions to ODP in the future.

PCOM Motion by Acclamation

PCOM, on behalf of the JOIDES Office and the entire ODP community, thanks Julian Pearce for stepping in as interim PCOM Chair, handling a difficult transition at a time of unprecedented change with skill and grace. We wish him luck, and grant him a return to normal. We look forward to his future contributions to ODP.

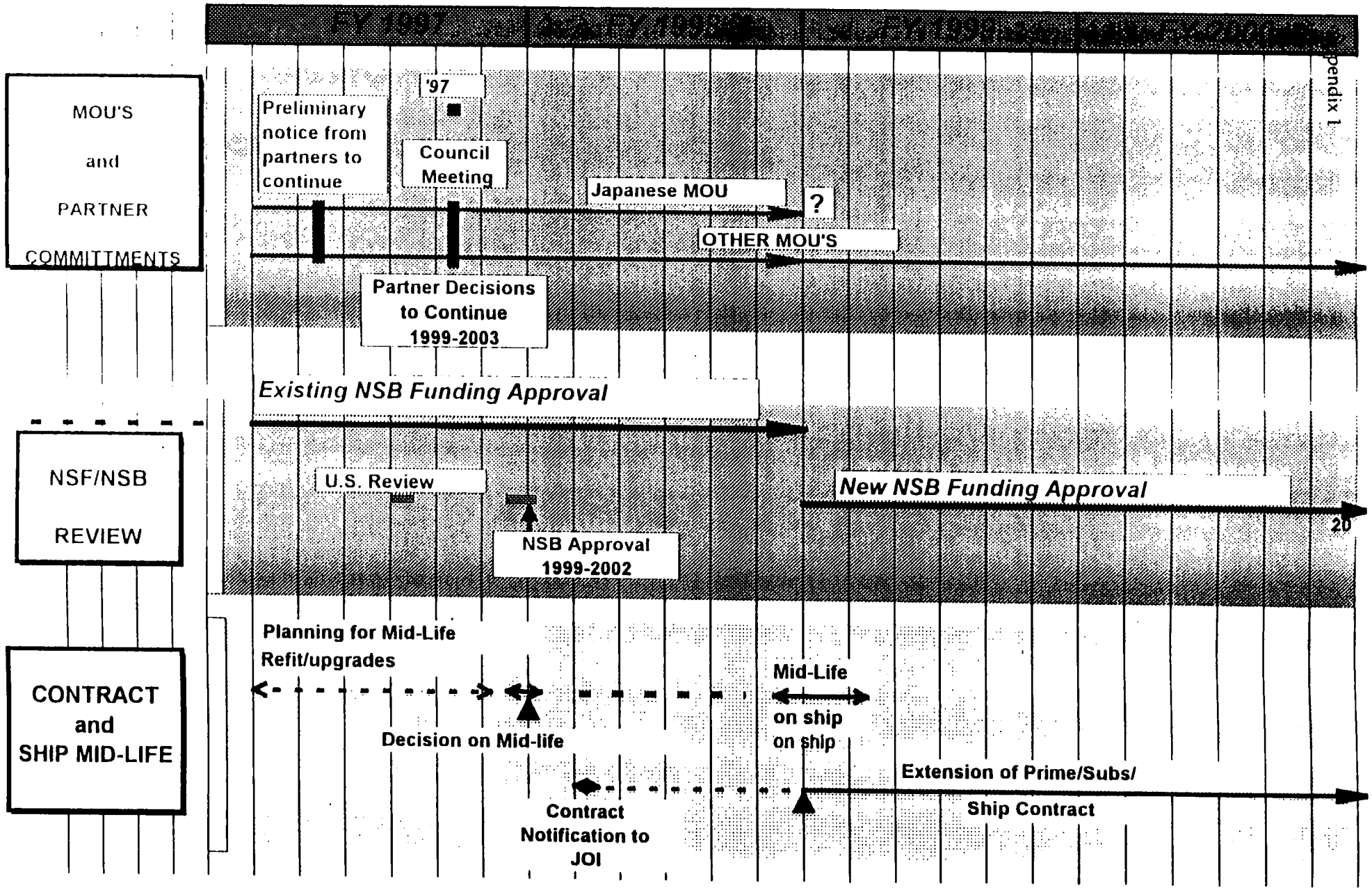
PCOM Motion by Acclamation

PCOM thanks Kathy Ellins, Colin Jacobs, and Julie Harris of the JOIDES office for their service to the JOIDES community over the past two years. The skill with which they have carried out their responsibilities under Rob Kidd for the first time from a base outside the US and variously under trying, complicated, and even tragic circumstances cannot be understated. Rob always praised the insight and intuition of his staff, and we can only add to that our appreciation of their devotion to him and the JOIDES Planning process and their consistent helpfulness and hard work during all the meetings and in between. Sadly, we cannot direct this appreciation to Rob in person,

but we can note that during the past two years, the cause of scientific ocean drilling has been greatly advanced, and its future more nearly secured, under his skilful leadership. To those ends, the staff of the JOIDES Office has contributed immeasurably. To Kathy, Colin, and Julie, our sincere thanks. Godspeed and all the best in the years ahead.

Adjourn *15:22*

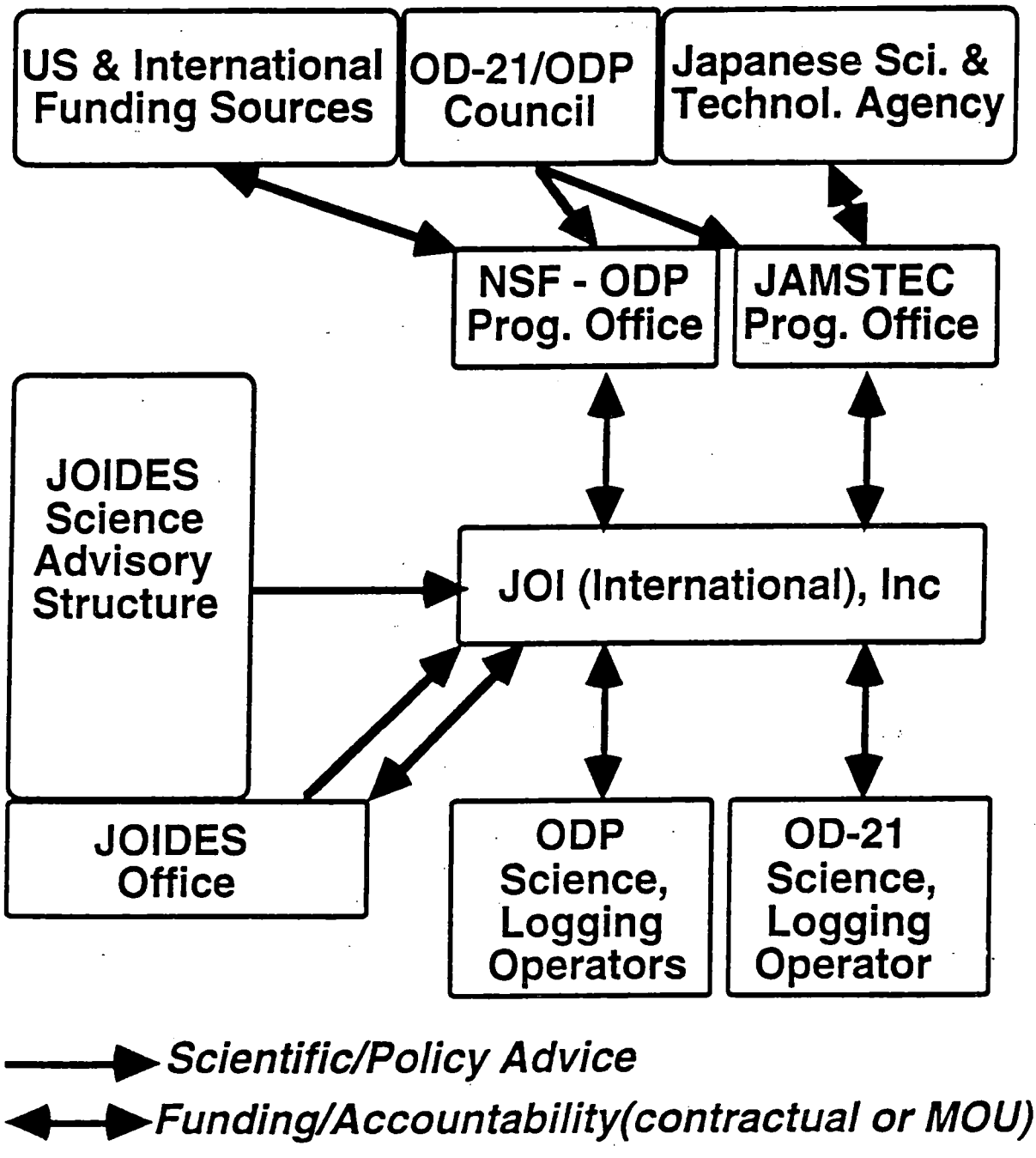
APPENDICES


FY 1997
MOU'S and PARTNER COMMITTMENTS
'97
Preliminary notice from partners to continue
Council Meeting
Japanese MOU
?
OTHER MOU'S
Partner Decisions to Continue 1999-2003
Existing NSB Funding Approval
NSF/NSB REVIEW
U.S. Review
NSB Approval 1999-2002
New NSB Funding Approval
20
Planning for Mid-Life Refit/upgrades
CONTRACT and SHIP MID-LIFE
Decision on Mid-life
Mid-Life on ship
on ship
Extension of Prime/Subs/
Ship Contract
Contract Notification to JOI

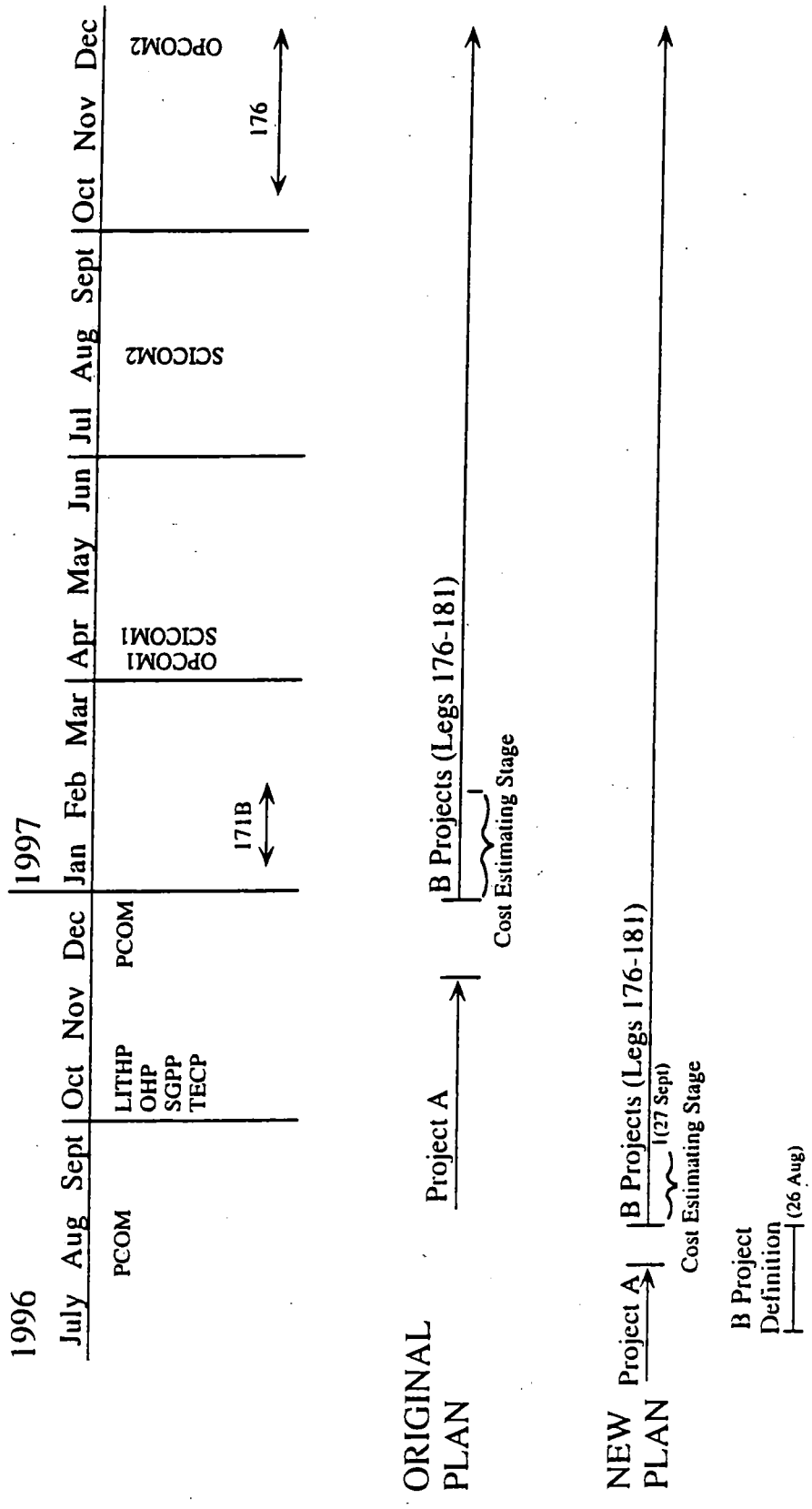
Appendix 2

Attachment 2

Structure of an Integrated ODP and OD-21

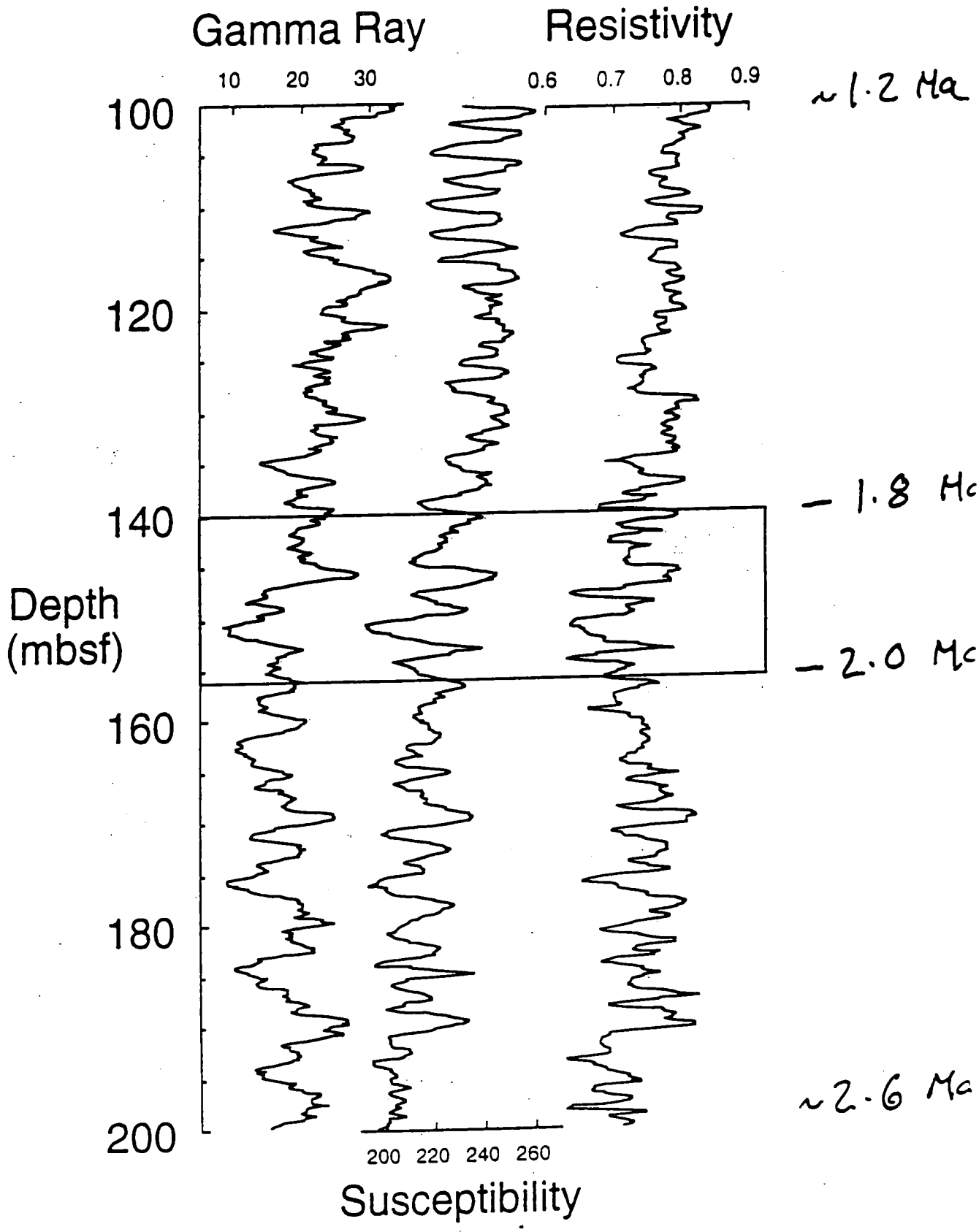


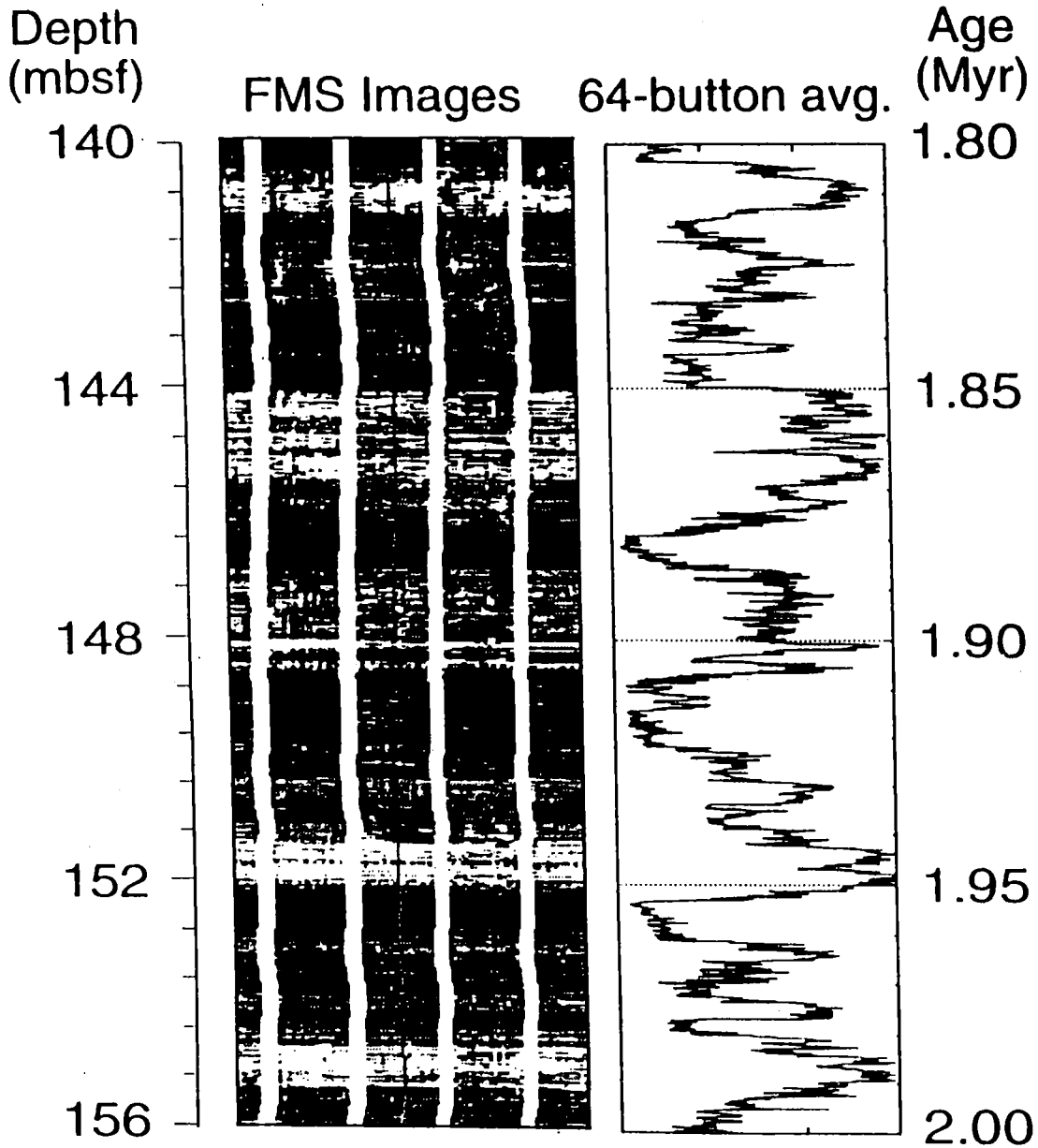
Appendix 3

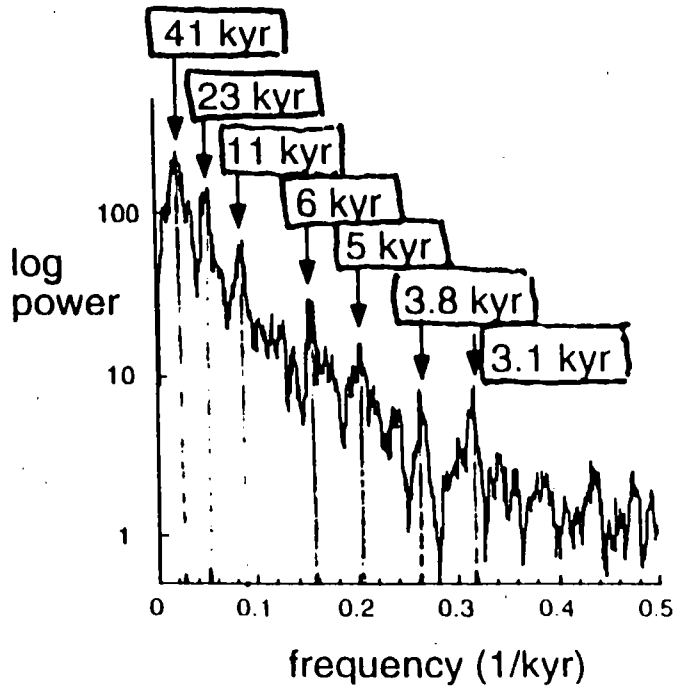

1996
1997
July Aug Sept Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sept Oct Nov Dec
PCOM
LITHP
OHP
SGPP
TECP
PCOM
171B
OPCOM1
SCICOM1
SCICOM2
176
OPCOM2
ORIGINAL PLAN
Project A
B Projects (Legs 176-181)
Cost Estimating Stage
NEW PLAN
Project A
B Projects (Legs 176-181)
(27 Sept)
Cost Estimating Stage
B Project Definition
(26 Aug)

Appendix 4

Site 1014, Tanner Basin





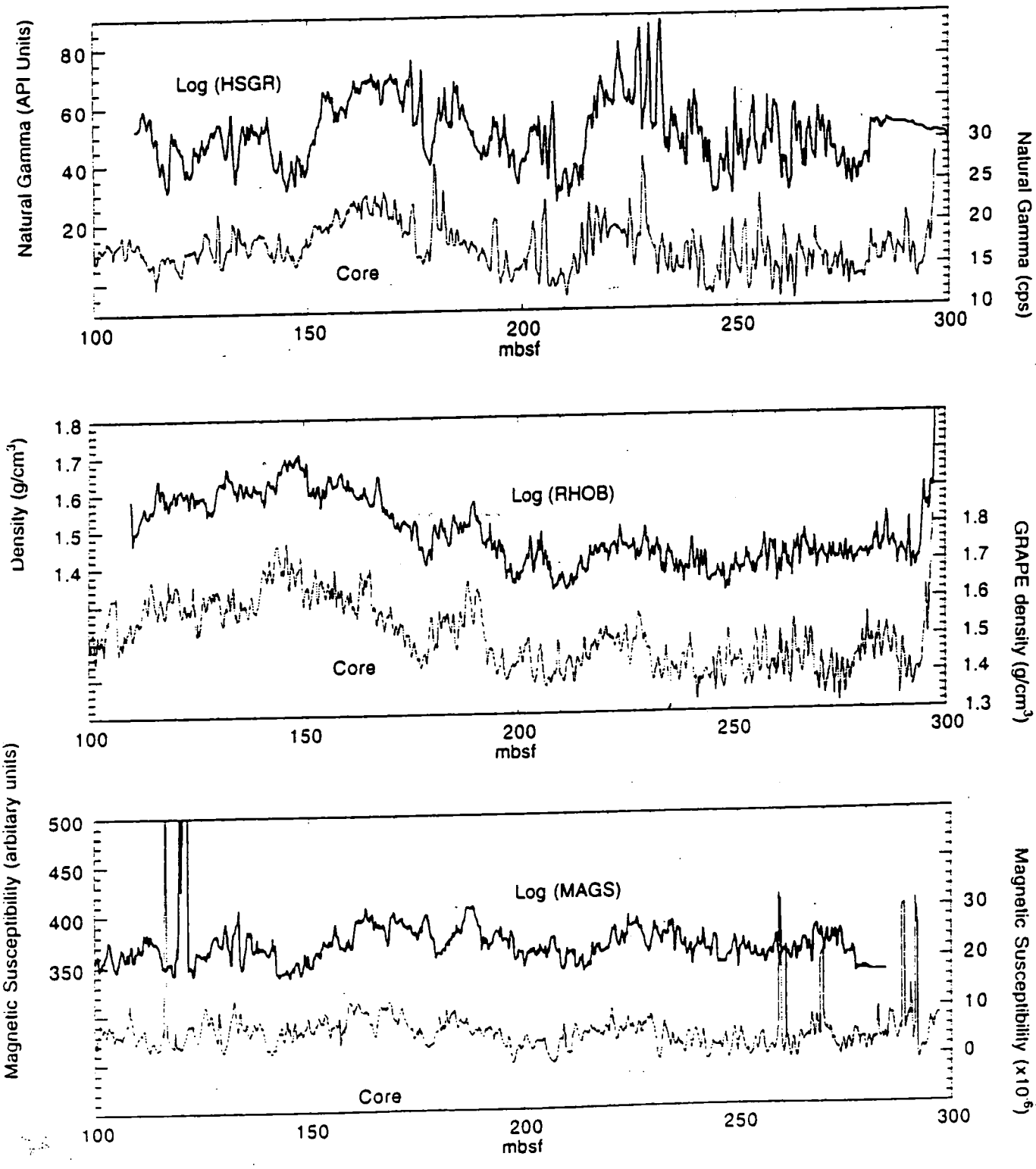


ORBITAL & SUB-ORBITAL VARIABILITY

~8 cm/k.y.

Appendix 6

SITE 1020



Data Migration Timetable

ODP-BRG ON-LINE DATABASE TIMETABLE
Phase 3: Data migration (conventional logs)

September 30, '96	March 31, '97	March 31, '98
Leg 140 Legs 143-152 Legs 154-161	Legs 102-104 Legs 111-112 Leg 114 Leg 116 Leg 118 Leg 121 Legs 126-128 Legs 130-131 Leg 133-139 Leg 141 Leg 162 Legs 164-165	Legs 101 Legs 105-110 Leg 113 Leg 115 Legs 117-120 Legs 122-125 Leg 129
Total: 18 leg (81holes)	Total: 25 legs (93 holes)	Total: 17 legs (50 holes)
Stage 1	Stage 2	Stage 3

TOTAL: 60 legs, 224 holes (leg 165)

Requirement for completion of stages 2 + 3: processing/review of historic holes (pri

Appendix 8

Item C (1) Financial Projections

(EXCOM Report)

ODP Funding Requirements Projection								
	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03
Base Prog. Cost	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4
Net Inflation			1.0	1.9	2.8	3.7	4.7	5.7
Innovations		0.5	1.0	1.4	1.7	2.1	2.5	2.9
Add'l Tech. Dev't		0.7	1.2	1.4	1.6	1.8	2.0	2.2
Add'l Platforms				4.0	5.0	6.0	7.0	8.0
Extra Cost OD-21								
TOTAL	44.4	45.6	47.6	53.1	55.5	58.0	60.6	63.2

ODP Funding Contributions Projection								
	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03
NSF funding	27.7	27.7	28.6	30.6	30.9	32.0	32.2	33.8
5 non-US Memb.	14.7	14.7	15.0	15.0	15.5	15.5	16.0	16.0
AusCan Consort.	2.0	2.7	3.0	3.0	3.1	3.1	3.2	3.2
Assoc. Members		0.5	1.0	1.5	2.0	2.5	3.2	3.2
Add'l Platforms				3.0	4.0	5.0	6.0	7.0
TOTAL	44.4	45.6	47.6	53.1	55.5	58.1	60.6	63.2

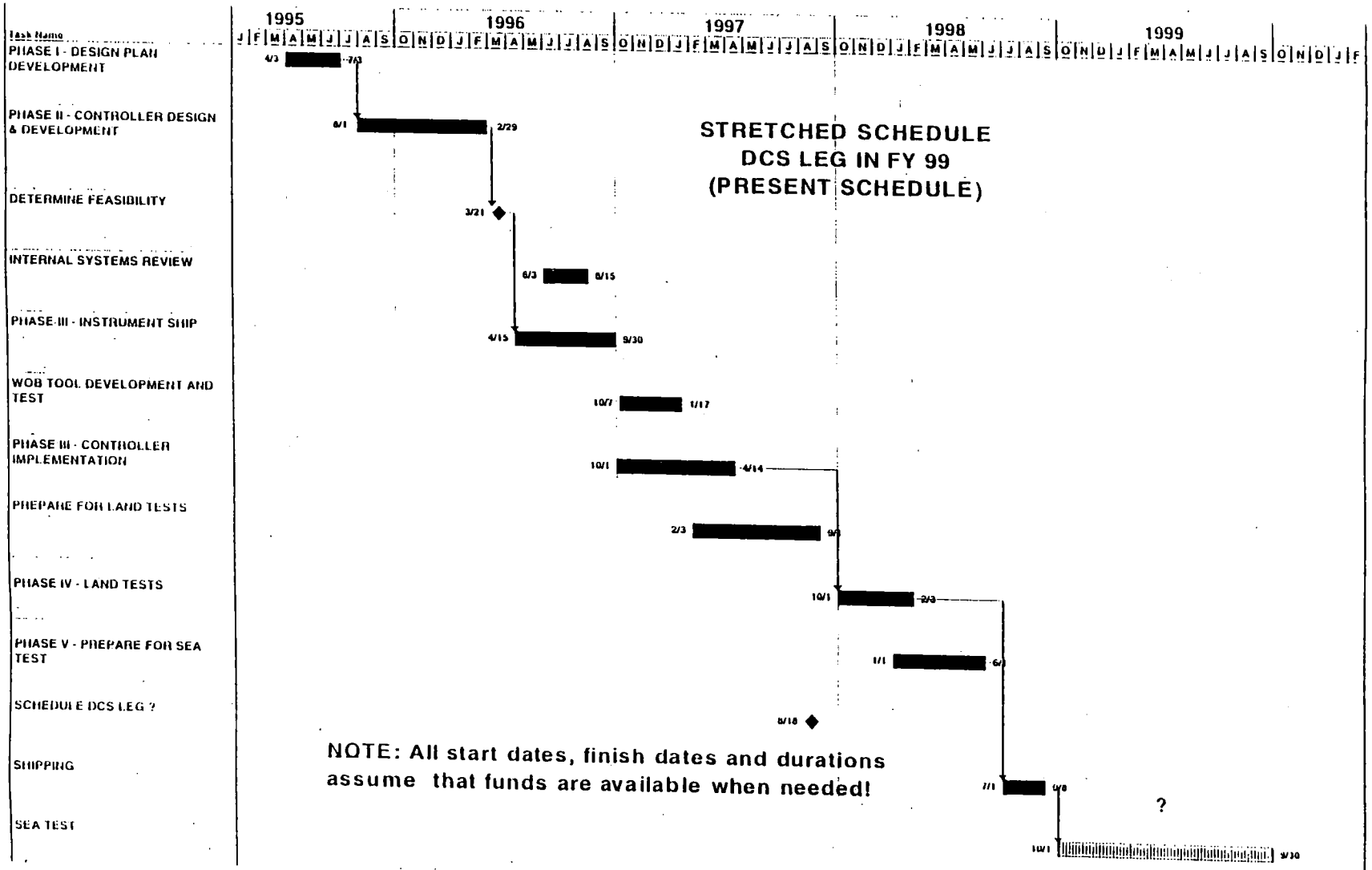
D.1

PROPOSED LEGS FOR PHASES 2, 3 AND 4

	Fast spreading ridges	Slow spreading ridges	LIPs	Active processes	Arc environment
Phase 2		1 leg 735B	1 leg Kerguelen #1.57	1 leg (Leg 168) ridge flank (Juan de Fuca)	1 leg forearc drilling #449
Phase 3 98-2003	1 leg exploratory, to select site for deep hole 1 leg offset drilling (Hess Deep) 3-4 legs 3 km deep hole	1-2 legs crustal drilling 2 arrays of shallow holes 1 leg mantle drilling (15°N, MAR) #152 3 legs crustal drilling : deepen 2 holes	3 legs Otong Java #448 + 2 other provinces	2 legs axial active system	1 leg convergent margin hydrothermal deposit #179
Phase 4 post 2003	continue deep hole to MOHO (6 km)	deepen 2 holes	1 deep hole	deepen 2 holes	
Note	riser > 2500 m	riser > 2500 m	riser > 2500 m	riser ?	

DIAMOND CORING SYSTEM DEVELOPMENT SCHEDULE

PHASES I -SEA TEST



JANUS Phase 1 Development Schedule

Substantially completed

- Corelog, Operations, Sampling (UG1)
- MST, Logging (UG 2a)
  Paleomagnetics, Color Reflectance
- Paleontology (UG 2b)

To be completed by Leg 171B

- Physical Properties (UG 3)
  VSR, Sonic Velocity, Therm Con, ADARA WST
- Chemistry (UG 4a)

May not be completed in Phase 1

- Sediments/ Structure (UG 4b)
  Smear Slides, text-based VCD
- Hard Rocks, Thin Sections (UG 5)
- Tensor, Underway Geophysics (UG 6)
  Seismic, Core Photos

SC Prioritized List for Completion

1. AGE/Depth Function (UG requirement) - (UG 2b)
2. Color Reflectance (UG 3)
3. Thin Section/HR Thin, Smear Slides (UG 4b, 5)
4. Paleomag- (Cryo, Spinner) - (UG 2a)
5. HARVI (UG 5)
6. Chemistry, quality control (Exception I.W.) - (UG 4a)
7. TENSOR (UG 2a)
8. ADARA (UG 3)
9. Core Display Application(UG 1)
10. TORVANE/Penetrometer (UG 3)

Estimated Cost Analysis for Changing or Eliminating ODP Publications

Cost Comparison	Total Cost
Current Model (6 IR and 6 SR per year)	$1,955,000
DSDP Model (6 ICD, 6 books with IR and SR papers per year)	$2,027,000

Estimated Cost Savings*	Savings Relative to FY97 Current Model
6-year Plan to Move to Electronic IR and SR Move IR to electronic format with 169 Move SR to electronic format with 176	**$630,000** (savings in FY2002)
4-year Plan to Phase Out SR Move IR to electronic format with 169 Move SR to electronic format with 161 Eliminate SR after 168 Publish WWW journal for data reports and technical notes.	**$820,000** (savings in FY2000)
Immediate Elimination of SR**	**$700,000** (savings in first year no SR published)

* Cost savings based on preliminary budget analysis.
All calculations in FY97 dollars.

** Currently, SRs through 161 in progress (161 to be published in FY1999)