

JOIDES SITE SURVEY PANEL MEETING

March 27-29, 1996
Department of Geology and Geophysics,
Edinburgh University, Edinburgh, UK

Members: Srivastava, Shiri (*GSC Atlantic, Canada*) -- Chair
Casey, Jack (*U. Houston, USA*)
Diebold, John (*L-DEO, USA*)
Enachescu, Michael (*Husky, Canada*)
Flood, Roger (*SUNY, USA*)
Hinz, Karl (*BGR, Germany*)
Lykke-Andersen, Holger (*U. Aarhus, Denmark*)
Paull, Charles (*U. North Carolina, USA*)
Peterson, Larry (*RSMAS, USA*)
Scrutton, Roger (*U. Edinburgh, UK*) ---- Host
Sibuet, Jean-Claude (*IFREMER, France*)
Toomey, Douglas (*U. Oregon, USA*)

Alternate: Kuramoto, Shin'ichi (*GSJ, Japan*)

Liaison: Acton, Gary (*ODP/TAMU*)
Ball, Mahlon (*PPSP*)
Ellins, Kathy (*JOIDES Office*)
Quoidbach, Daniel (*ODP Data Bank*)
Shor, Alexander (*NSF*)
Kidd, Rob (*PCOM*) -- Guest

Apologies: Mountain, Greg (*PCOM*)
Tokuyama, Hidekazu (*ORI, Japan*)

AGENDA
JOIDES Site Survey Panel Meeting
March 27-29, 1996
Department of Geology and Geophysics,
University of Edinburgh,
Edinburgh, UK

1. PRELIMINARY MATTERS (Srivastava)

- 1.1 Introduction of SSP members, Liaisons and guests and logistics (Srivastava & Scrutton)
- 1.2 Approval of the Agenda and action items from November 1995 LDEO meeting
- 1.3 Charge and procedures for the meeting
- 1.4 Watchdog assignments

2. REPORTS

- 2.1 PANCH/Drillopts (Srivastava)
- 2.2 PCOM (Kidd)
- 2.3 PPSP (Ball)
- 2.4 Data Bank (Quoidbach)
- 2.5 JOIDES Office (Ellins)
- 2.6 TAMU (Acton)
- 2.7 NSF (Shor)

3. SITE SURVEY IMPLICATIONS OF RECENTLY DRILLED LEGS

- 3.1 Leg 164: Gas Hydrate (Paull/Acton)
- 3.2 Leg 165: Caribbean Ocean History (Peterson/Acton)

4. SITE SURVEY STATUS OF UPCOMING SCHEDULED LEGS *

- 4.1 Leg 168: Juan de Fuca Hydrothermal Circulation (Sibuet)
- 4.2 Leg 169S: Saanich Inlet (Paull)
- 4.3 Leg 169: Sedimented Ridges II (Casey)
- 4.4 Leg 171B: Barbados Accretionary Prism; 475 (Sibuet) **
- 4.5 Leg 171C: Blake Nose; 462 (Lykke-Andersen) **
- 4.6 Leg 172: NW Atlantic Drift ; 404 (Lykke-Andersen) ***
- 4.7 Leg 173: Iberia II; 461 (Enachescu)
- 4.8 Leg 174A: New Jersey II; 348 (Flood) **
- 4.9 Leg 174B: Cork 395A; 424 (Toomey) **
- 4.10 Leg 175: Benguela Current; 354 (Paull)
- 4.11 Leg 176: Return to 735B; 300 (Casey)

5. POTENTIAL FUTURE DRILLING: TECP

- 5.1 450: Taiwan arc-continent collision (Sibuet) PPSP
- 5.2 447: Woodlark Basin (Enachescu) PPSP
- 5.3 431: Western Pacific Seismic Network (Toomey) NEW
- 5.4 442: Northern Mariana Back Arc Basin (Kuramoto)

6. POTENTIAL FUTURE DRILLING: OHP

- 6.1 464: Southern Ocean Plaeoceanography (Flood)
- 6.2 441: SW Pacific Gateway: Paleoceanography (Peterson)
- 6.3 465: SE Pacific Paleoceanography (Peterson)
- 6.4 485: Southern Gateway-Australia and Antarctic (Casey) NEW

7. POTENTIAL FUTURE DRILLING: LITH

- 7.1 451: Tonga Forearc (Diebold)
- 7.2 457: Kerguelen Plateau (Hinz)
- 7.3 472: Mass Balance: Izu Mariana (Scrutton)
- 7.4 426: Australian Antarctic Discordance (Toomey)

8. POTENTIAL FUTURE DRILLING: SGPP

- 8.1 481: Red Sea Deeps (Scrutton)

- 8.2 445: Nankai Trough Accretionary Prism (Paull)
- 8.3 367: Great Australian Bight Carbonate (Enachescu) PPSP
- 8.4 484: East Asian Monsoon History (Peterson)
- 8.5 476: Hudson Apron (Flood)

9. OTHER BUSINESS

- 9.1. Long Range Plans (Kidd, Srivastava)
 - a. SSP reviewing of proposals for Phase III of ODP
 - b. SSP reviewing of proposals for Phase IV of ODP
 - c. Shipboard changes at the end of 1998 JR Refit
- 9.2 Feedback to proponents (Srivastava)
- 9.3 JANUS (Ellins/Quoidbach/Acton)
- 9.4 Panel Membership (Srivastava)
- 9.5 Next meeting (Srivastava)
- 9.6 Other business
- 9.7 Data Bank management (Executive session)

* --- Legs 167 and 170 data set was approved at previous SSP meetings and no changes have taken place since.

** --- Data for these legs were judged more or less ready at the November meeting.

*** -- Even though data for this proposal was judged ready at November 95 meeting, substantial changes in the drilling targets have taken place for this proposal that the data set needs to be reexamined in view of the new targets.

PPSP - items in the proposal of concern to PPSP.

Executive Summary
JOIDES Site Survey Panel Meeting
March 27-29, 1996
Department of Geology and Geophysics,
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Charge and procedures for this meeting

The goals for this meeting were to: (1) to evaluate the site survey readiness of the top five ranked proposals by the thematic panels at their spring meeting and to advise the proponents of these proposals about data they need to acquire and submit to the DB in order for their proposals to be scheduled for drilling in 1998/99, (2) to evaluate the site survey readiness of legs scheduled for drilling, (3) to assess any site survey issues arising from legs that were drilled since our November meeting and (4) to discuss the implication of the implementation of Long Range Plan on SSP. The main customer for the output of this meeting is PCOM, who uses the evaluations resulting from item (1) above as input into designing the area of operation for the drill ship for 1998/1999.

The discussion during the meeting resulted in SSP making the following recommendations to PCOM, action items, and point of consensus.

SSP Recommendation # 1 to PCOM concerning feasibility of the use of Differential GPS on board JOIDES RESOLUTION: SSP recommends that it should request JOI to direct ODP/TAMU to make appropriate arrangements for the use of a differential GPS on board JOIDES RESOLUTION for those cruises where high accuracy is needed in locating proposed sites. This covers all Legs with the exception of Legs 175 and 176.

Explanatory Note:

In order for J/R to locate the proposed sites with the same accuracy as obtained on many of the US and foreign research ships which were engaged in the site survey work and utilising differential GPS systems, and whose data have been utilised in locating the proposed sites, it is essential that a similar system be used on board J/R. This can only be obtained by the use of differential GPS system in near shore environment.

SSP Recommendation # 2 to PCOM concerning TAMU liaison to attend all SSP meetings a year: SSP recommends to PCOM that it request JOI to direct ODP/TAMU not to reduce their attendance at the SSP meetings.

Explanatory note:

TAMU's budget reduction calls for their liaison representatives to different panels to attend only one meeting per year. This means SSP will have TAMU's liaison attending only one of their meetings per year. It has been found that a number of items discussed during SSP meetings usually require TAMU's input. From the operational point of view it would seem desirable to have TAMU liaison present at all of SSP meetings. It has taken a lot of effort and persuasion on SSP part to establish an effective communication link with ODP/TAMU through their liaison representative and SSP would not like to see it broken. SSP, therefore, requests that efforts be made to ensure that the established communication with TAMU remains unaltered by allowing their liaison member to attend all of SSP meetings.

SSP Recommendation # 3 to PCOM concerning formation of a special group to look into the problem of imaging deeper part of the crust for drilling. SSP recommends to PCOM that it should form a special group of expertise from TECP, LITHP, SGPP, ODP/TAMU and SSP to look into the ways of finding parameters of the upper crust which would have to be determined for

successful drilling to such great depths. This could be similar to what was done for the Bare Rock Drilling using Hard Rock Guidebase.

Explanatory note:

The entire question of imaging the upper and lower part of the crust using new and innovative techniques is being discussed to some extent by a Joint Meeting of ODP and Inter-Ridge held at Woods Hole Oceanographic Institution. It is hoped that it will result in answering some of these questions. Besides this, there are many engineering and scientific questions concerning deep drilling which need to be addressed as well. These perhaps could be better addressed by a group of people who are directly involved in the drilling program. It is for this reason it is suggested that such a group may come from LITHP, TECP, SGPP, ODP/TAMU and SSP. No doubt a meeting of such a group should not be restricted to the group alone but should involve others as well.

Action item # 1: It was pointed out that because all thematic panels may not be aware of the situation that as a rule SSP is not required to consider generic proposals in their evaluations, unless requested to do so by PCOM, that efforts be made to notify these panels about it. **SSP Chair to notify the thematic panels about it.**

Action item # 2: Question arose about the easy access to the navigational file compiled by the Data Bank for its use on board JR by the scientific party on a given Leg. **Dan Quoidbach and Gary Acton, TAMU liaison, to get together to see ways this could be achieved.**

Action item # 3. **DB to revise the ODP Site Survey worksheet to include that accurate velocity information be provided for all holes deeper than 400 m.**

Action item # 4: **Dan Quoidbach to contact Willford Sager from TAMU to discuss the ways his sub-group are planning to handle storage of underway information on JANUS.**

Action item #5 : **Srivastava to write to PCOM Chair with the suggested list of names of candidates as replacement for SSP member Doug Toomey.**

Action item # 6 : **SSP Chair Srivastava to contact TECP Chair for a member from their panel to act as an alternate for John Diebold for July meeting.**

Action item # 7: **Tokuyama, Japanese member to SSP to let SSP Chair Srivastava know about the suitability of April 7 to 9, 1997 as the dates for holding next SSP meeting in Japan.**

Action item # 8: **Srivastava, Chair of SSP, to write to PCOM asking for their permission to hold next meeting in July at LDEO.**

SSP Consensus # 1: Since the Nov. 1995 SSP meeting, the DB has received MCS processed data of the "Hydrocell 95" cruise carried out in spring/summer 1995 in support of Leg 168. As all the initially proposed sites have been slightly moved, it is requested that the proponents to renumber their sites by adding letter A to the new sites (for example, PP6 becomes PP6A) to conform with the new numbering system used by JOIDES office. No visual data are available for site PP6A (new PP6 site) for which a hard rock guide base will probably to be used. The Co-Chiefs are requested to get in touch with engineers from TAMU to discuss the use of HRGB at this site. Migrated seismic sections for all the proposed sites sent to the DB are of very good quality. All required data are in the DB (1A) and so in SSP opinion the data package for this Leg can now be considered complete.

SSP Consensus # 2: SSP acknowledges the efforts of the Co-Chief of Leg 169S to obtain higher

resolution images of the shallow sediment section by reprocessing the existing small volume airgun records. The reprocessed airgun lines will be accepted in lieu of 3.5 kHz data. In SSP opinion the data package for Leg 169S is now complete.

SSP Consensus # 3: All the required data is provided for **Leg 169** and most of the suggested data is provided. The proponents have promised to supply certain additional data such as geologic and dive vent field maps for site location and the newer fully processed Ewing-05 seismic data. The shift between the hydrosweep and older seabeam bathymetry will require a table to be added to the data bank with the corrected latitude and longitude of each site. Latitude and longitude marks and Site locations should be added to all pertinent dive maps submitted to the DB. The final dive and geologic maps and data to be submitted will satisfy the concern of SSP regarding site location (except Site BH-6), but final copies have not been submitted since requested after the November SSP meeting. As the Leg is scheduled for August, 1996, these data should be deposited as soon as possible. The data package should be complete by the July SSP meeting.

SSP Consensus # 4: All proposed sites are a reoccupation of already drilled sites in North Barbados (**Leg 171B**) except for proposed site NBR-8 which is offset about 1 km from site NBR-9 (949B). The SSP is concerned by the fact that NBR-8 is supposed to be drilled 250 m deeper than site NBR-9 (949B). In that case, proponents must be aware that some previous drill hole with core recovery might be required, depending of guidance or safety rules which could be set up for logging while drilling holes. The proposed sites belong to the drilling environment target C (active margin). All required data are in the data bank (1A) and so the data package for this Leg is considered complete.

SSP Consensus # 5 : SSP reiterates the necessity of seismic profiles for imaging the subsurface on all sites to depths exceeding the TD and to ensure the possibility for regional correlation on **Leg 172**. The proponents and Co-Chiefs are urged to follow the recommendations expressed by DPG and by SSP as stated above. In cases where sites cannot be moved to existing seismic lines, new profiles must be acquired, e.g. as agreed upon in the consensus from the previous SSP meeting, by the watergun system aboard JR. In selection of drilling depths the proponents should be aware of the presence of structures and sedimentary units e.g. faults and slump masses, that can compromise the stratigraphic high-resolution objectives of the leg.

SSP Consensus # 6: Migrated MCS lines displayed at a proper scale, a recontoured basement map and complete documentation for the IBERIA 08B site are required for **Leg 173**. It is suggested that copies of these data must be deposited before SSP July meeting so a proper assessment of this site can be made by the panel prior to drilling.

SSP Consensus # 7: Needed site-survey side-scan sonar data will be collected in spring 1996, and a final safety review is scheduled for fall, 1996 for **Leg 174A**. The proposal is rated 2B.

SSP Consensus # 8: Lot of new data has been supplied to the Data Bank in support of **Leg 175** but lack navigation in shot point so the adequacy of the data can be assessed. It is suggested that the Co-Chiefs supply the required navigation on suitable large scale before July deadline.

SSP Consensus # 9: SSP appreciates the efforts to supply required data to the DB and the new seismic refraction results prior to the November meeting by the Co-Chiefs of **Leg 176**. SSP reiterates that all the required data is now available in order to deepen Site 735B. However, SSP continues to request that the proponents edit the JOIDES Resolution video tapes to show the distribution of sediments and slopes near Site 735B. This is important given the potential of selection of alternate sites if difficulties in deepening 735B are encountered (see PCOM MOTION 95-3-11). SSP is interested in seeing the new 3.5 Khz and SCS seismic results from Dr. Tim Minshall for the wave-cut platform. The fully processed seismic data should be deposited in the DB as soon as possible. Track lines and sections should be submitted with sites clearly marked. These should be submitted prior to the July, 1996 SSP Meeting. Offset sites proposed for the second Leg were not considered by SSP

because the Leg is not ranked. These data and results of any new site survey data will be important for alternate site selection and continued evaluation of the second Leg of the proposal by SSP and the thematic panels. The proponents are asked to keep SSP apprised of the pending site survey proposal's funding status .

SSP Consensus # 10: Since the last revision of **proposal 450 (Jan. 95)** and its examination by the SSP in April 1995, no data has been deposited in the Data Bank. MCS and OBS data were collected during the M. Ewing cruise in summer 1995. In addition, a l'Atalante cruise will be conducted during spring 1996 in this area. Heat flow measurements may be required to document sites 1, 4 and 5. PPSP would probably like to see such data. In addition, bottom sample data at site 6 to characterize the seafloor where a reentry cone would be needed for the 1300m penetration. SSP needs to see all these data before confirming their quality and completeness and the proponents are urged to start to submit data to the DB.

SSP Consensus # 11: SSP reiterates that a nearly comprehensive data package supporting drilling in the **West Woodlark Basin (447-Rev2)** now exists in the Data Bank. The final MCS migrated cross lines are still not supplied. The reviewed proposal contains four feasible sites. Velocity information or depth displayed seismic sections including predicted well bores and total depths are required for complete assessment of this proposal. Site Survey Readiness classified as 2A.

SSP Consensus # 12 : No data are in the DB in support of the **Western Pacific Seismic Network proposal (431)**. Since many of the requested data may be available if proposed cruises go forward the ranking (according to SSP readiness) is 2C.

SSP Consensus #13: Judging from the **Northern Marianas Rift proposal (442)** now and earlier a reasonable quantity of single channel seismic reflection data exist at most sites but this data has not been deposited with the data bank yet. SSP had recommended that a swath bathymetric map covering the entire region of the northern tip of the Mariana Trough and MCS profiles (migrated section) passing through each proposed sites are required. SSP recommends that these data be acquired if already exist with Japanese and/or US organisations and sent to ODP Data Bank as soon as possible. Adequate data does not exist for this proposal in the DB and hence ranked as 7 for site survey readiness.

SSP Consensus #14: Data submissions and a recently collected site survey cruise for **proposal 464 (S. Ocean paleoceanography)** collected much of the required site data. The proponents need to provide processed and redisplayed seismic data, 3.5 kHz data, core descriptions, seismic velocities where penetration greater than 400 m are planned, and information to help define a weather window to the data bank. We also anticipate the designation of new sites based on site-survey data. The proposal is ranked as 2A.

SSP Consensus #15: A revised proposal has been received that identifies a set of nine sites for the **SW Pacific Gateway program (441)**, most of which have been previously proposed. No new data have been received by the ODP Data Bank since our last consideration of this program and significant items are still missing. A site survey cruise to survey four of the nine sites is scheduled for later in 1996 aboard R/V Tangaroa. We urge proponents to continue to submit vital data in a timely manner. Pending data submission and a successful survey cruise, we anticipate this program to be a likely candidate for 1998 drilling.

SSP Consensus # 16: Site locations for **SE Pacific Paleoceanography program (465)** have been recently revised (465-Add) based on a compilation of existing data for the SE Pacific region. A site survey cruise aboard the R/V Melville has been tentatively scheduled for early 1997 and will further refine all site locations. No data have yet been received by the Site Survey Data Bank, and we urge the proponents to submit their initial data package by the July 1 data deadline. We wish the proponents luck in carrying out their scheduled survey cruise and anticipate that this program will be a viable candidate for 1998 drilling.

SSP Consensus #17: This **proposal (485)** involves drilling between Tasmania and the South Tasman Rise

and Antarctica to address Cenozoic climate changes and paleo-ocean current patterns, caused by drifting of Australia northward from Antarctica. No data was submitted to the data bank prior to the March, 1996, so although the proposal and data information within the proposal was reviewed at the SSP meeting, there was no data evaluated. However, based on data requirements for passive margin target types proposed, it appears that all of the required data is available for drilling. The data available includes SCS deep penetration, MCS and velocity, 3.5 kHz, swath bathymetry, high resolution side looking sonar, magnetics, gravity, coring, rock sampling data are available for all sites. SCS high resolution data is available for four of the seven sites. Intersecting seismic lines are available for most of the Sites. SSP request this data and detailed information on the velocity data and depth estimations for each site. Drilling, transit, change over times from XCB/RCB need to be rigorously evaluated. Based on the data description in the proposal, SSP believes that all the required data exists for submission to the data bank. Data pertinent to gas shows at Sites AT1 and AT2 should be submitted for Safety Panel consideration. A ranking of 2A (possibly viable proposal for FY 98 drilling, likely for FY 99) is made, however, this ranking will be dropped if the full data set listed above is not submitted prior to July 1 deadline for its evaluation by SSP at their July meeting.

SSP Consensus # 18: It is almost certain that the site survey requirements for **Tonga Forearc proposal (451-rev3)** will be satisfied by the existing data, and by data soon to be acquired. The proponents should assemble data sets according to site survey target type C, Active Margin. They should also seek information on regional values of sediment velocities and heat flow. Data submission to the Data Bank should proceed soon so that SSP can make a proper evaluation.

SSP Consensus # 19: The proponents of the **Kerguelan Plateau drilling proposal (457)** and LITHP have prioritized the proposed sites, and have defined the following drilling strategy for Leg A; Sites KIP2A/3A/7A/12A and KIP18C to be drilled to a depth of 200 m into basement. On a possible later Leg B deepening of site KIP18C and drilling another site KIP6A on Elan Bank is recommended providing there is a need to do so after examining the results from Leg A. Although the site survey data mostly for ODP Leg 120 and a track showing the existing French, Australian and US seismic MCS and SCS data are in the Data Bank, the data set for this proposal is far from complete to support a two Leg drilling. The proponents should make every effort of sending the existing data to the Data Bank by July 1 deadline so that it could be examined by SSP. They should also keep SSP posted of the plans to acquire additional data at the proposed sites.

SSP Consensus # 20: Progress is being made towards the assembly of an acceptable site survey data package for **proposal 472 (mass balance Izu Mariana)**. The proponents are asked to attend to some outstanding items: core and high-resolution seismic data at site BON8A and alternate site data for 801C.

SSP Consensus # 21: Because the proponents of **Australia-Antarctic Discordance proposal (426)** intend to submit a revised proposal, with revised site locations, prior to the July 1 deadline, SSP did not discuss the data readiness of currently proposed sites. However, all data required by SSP is believed to be available, though not yet in the data bank. SSP classifies the data package as "2A".

SSP Consensus # 22: SSP reiterates its consensus of November 1995 that the **Red Sea Deeps (481)** is an exciting proposal. However, it is necessary for the proponents to prepare for the Data Bank fully annotated maps and sections, velocity data, core logs, heat flow measurements and any other required data for the appropriate target type of each site. SSP believes that all these data already exist. Site Survey readiness is judged as 2A.

SSP Consensus # 23: All required data for **Nankai Trough (#445)**, already submitted to the Data Base in support of ODP Leg 131 and DSDP Legs 31 and 87, exist but in most disorganized fashion. It is suggested these data be organised in the fashion as suggested above or supply copies of the original data showing sites etc. Other required data like heat flow should be submitted in light of the fluid objectives.

SSP Consensus # 24: SSP reiterates that though a nearly comprehensive data package supporting drilling the **Great Australian Bight (367-Rev3)** now exists, SSP awaits to examine the newly acquired data to make a

proper evaluation of this proposal for site survey readiness point of view. The final site survey MCS migrated lines and various other information recently acquired should be supplied to the Data Bank by July 1 deadline. The reviewed proposal contains 13 sites with variants in case of postponing execution of shallow sites. A final drilling schedule remains to be designed by the proponents prior to the July SSP meeting.

SSP Consensus # 25: This new proposal to drill in the **South China Sea (484)** addresses themes of great interest to more than one thematic panel. There is concern, however, that current site selection may not be adequate to meet the scientific objectives proposed. A great deal of survey data are likely to exist in this region, though data presented in the proposal are minimal and inadequately described. No data have been submitted to the Site Survey Data Bank. Proponents are urged to revise their site selections keeping data requirements in mind for target types A and B. We look forward to seeing this proposal continue to mature and wish the proponents good luck in their efforts.

SSP Consensus # 26: **476-Add** ties the drilling plan to the proposed sites. Additional information on the morphology of the near-surface and buried failures needs to be provided, and the acceptable spacing between cored sites and LWD or MWD sites for both scientific and safety reasons needs to be reconsidered. Much of the required data, with the exception of a multibeam survey, may exist in this region because of prior hazards surveys and should be submitted to the data bank. Because of this, a rating of 2A is suggested; however, this rating may change after proponents evaluate existing data in the region and submit to the Data Bank.

SSP Consensus # 27: SSP has enjoyed working with **Doug Toomey** for the past two and half years and would like to thank him for his very valuable contribution to the working of this panel.

SSP Consensus # 28: It was agreed that the **responsibility for correct designation of sites for each Leg in the safety sheet would lie with the Data Bank** from now onward.

Minutes
JOIDES Site Survey Panel Meeting
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1. PRELIMINARY MATTERS

1.1 Introduction and Logistics (Srivastava/Scrutton)

SSP Chair Srivastava welcomed all those present, especially the new member, Charlie Paull and the new TAMU liaison, Gary Acton. It was followed by a self introduction by all. Roger Scrutton, the host for this meeting, welcomed the members, outlined the logistics and provided information about the field trip to the Highland Boundary Fault on Saturday. The minutes of November 95 meeting and the agenda for this meeting were approved unanimously.

1.2 Approval of the agenda and action items from November 1995 LDEO meeting (Srivastava)

Action Item # 1: The SSP Chair to write to the PCOM Chair requesting that **he communicate with the SMP Chair about the provision of underway seismic profile data to the SSDB**. SSP would like to have the support of SMP for the PCOM motion on the implementation of processing on board of all data to raw brute stack or a level equivalent to that requested by the Co-chiefs for their purposes.

SSP Chair Srivastava talked to the Chair of SMP about it at the yearly PCOM meeting in La Jolla California, USA and he agreed to raise this issue with his panel at their next meeting.

Action Item # 2: SSP member **John Diebold will be requested to monitor the seismic data that is sent to the data bank from the JR and report on this at the March meeting.**

To be discussed at the next meeting.

Action Item # 3: **Details on JANUS to be sent to all SSP member before March meeting by the JOIDES office.**

Not done but the required information is available at WWV net work.

Action Item # 4: **ODP Site Survey worksheets are to be revised to include information on ice hazards under category 14**, which at present contains only a requirement for water current data.

Done

Action item # 5. Data Bank Manager **Quoidbach to write to the Co-Chiefs of designated legs**, reporting the sense of SSP discussion and enclosing the appropriate section of the draft.

Done

Action item # 6. **Watchdogs to write to the lead proponent of all programs discussed**, reporting the sense of SSP discussion and enclosing the relevant section of the minutes. A copy of this letter should be sent to the ODP Data Bank. The letter can be sent by e-mail.

Except for one, every one else seems to have done this task.

Action item # 7. SSP Chair Srivastava to contact Karl Hinz about his membership in the panel.

Karl Hinz appointment to SSP has been extended by Germany for the next term.

Action item # 8. SSP Chair Srivastava to write to PCOM for their approval to hold spring SSP meeting from March 27 to 29, 1996 in Edinburgh. The panel gratefully accepted invitation from Roger Scrutton to hold this meeting there.

Done

Action item # 9. SSP Chair Srivastava to write to PCOM for their approval to hold July meeting over a three and half days period from July 29 to August 1, 1996.

Done and approval obtained from PCOM.

1.3 Charge and procedures for this meeting (Srivastava)

The goals for this meeting were to: (1) to evaluate the site survey readiness of the top five ranked proposals by the thematic panels at their spring meeting and to advise the proponents of these proposals about data they need to acquire and submit to the DB in order for their proposals to be scheduled for drilling in 1998/99, (2) to evaluate the site survey readiness of legs scheduled for drilling, (3) to assess any site survey issues arising from legs that were drilled since our November meeting and (4) to discuss the implication of the implementation of Long Range Plan on SSP. The main customer for the output of this meeting is PCOM, who uses the evaluations resulting from item (1) above as input into designing the area of operation for the drill ship for 1998/1999.

1.4 Watchdog assignments (Srivastava)

The new watchdog assignments as listed in the Appendix C for this meeting were discussed and agreed upon.

Action item # 1: It was pointed out that because all thematic panels may not be aware of the situation that as a rule SSP is not required to consider generic proposals in their evaluations, unless requested to do so by PCOM, that efforts be made to notify these panels about it. SSP Chair to notify the thematic panels about it.

2.REPORTS

2.1 PANCH/Drillopts (Srivastava)

Both of these meetings were most educational for me and I learned a lot on the workings of both of these meetings. From my perspective they turned out to be most beneficial for us. Greg Mountain, our PCOM liaison, had told us how important SSP comments on the site survey readiness have usually been for PCOM decision making, and they certainly became very obvious to me after having sat on the DRILLOPTS, PANCH and PCOM meetings. If there was any one panel which has the most input in the decision making of the drilling schedule that would be, in my opinion, SSP. So you see SSP input is not going to waste; they have been regarded very important by all the panels. It was most gratifying to hear this repeatedly from all panel chairs. I presented our workload and suggestions about appointments of US alternate members to our panel at PANCH meeting and to my surprise both of these recommendations were well accepted by PANCH and finally approved by PCOM. My suggestion of moving data submission date from November 1 to October 15 was not approved by other panel chairs as they felt that this will put too much pressure on them about holding their fall meeting before beginning of October. The two recommendations approved read as follows:

1. PANCH recommends that each of the thematic panels designate one of their US panel members, with appropriate expertise, as ad hoc liaisons to SSP. They can then be called on by the SSP Chair to substitute for occasional US absentee SSP members. This substitution would take place no more than once a year for each individual.

2. PANCH recommends that the SSP workload be reduced by the following measures:

- i. SSP will only consider the top 5 ranked proposals from each thematic panel during their meetings (rather than the previous 7 rankings).
- ii. Thematic panels will identify proposals ranked in the top 5 that lack adequate data and are thus unlikely to make it into the prospectus within the two years time. SSP may exclude these proposals from consideration and may instead include, after consultation with PCOM Chair, proposals ranked lower than 5.

Other items relevant to SSP were also commented upon by PANCH and are as follows:

1. PANCH does not endorse changing the planning cycle and schedule, but suggests instead that ODP TAMU budgeting process begin once the prospectus has been assembled. PANCH suggests that a tighter prospectus be designated to SSP need considering fewer proposals. PANCH recommends that the "GANG of 4" (this being Jeff Fox from TAMU, Rob Kidd from PCOM, Dave Falvey from JOI and Dave Goldberg from DLG) continue to maintain communications in order to maximize effective progress toward this end. This came out of the recommendation which JOI had made to PCOM concerning making changes to scheduling legs during December meeting. JOI felt that scheduling legs during Dec meeting is too short a time to do a proper job on budgeting for the following year. They suggested that this should be done during August meeting and so the entire cycle should be moved to August. This meant scheduling all thematic and service panel meetings accordingly. The change was too drastic so did not fly.

2. PANCH supports the TEDCOM subcommittee's recommendation regarding the acquisition of quotes for evaluation of the alternatives DCS system.

3. PANCH expresses concern regarding the changes in publications and in the implementation of these changes. It suggests that strict monitoring of the outcomes take place and that in a year's time the publications be reevaluated and recommendations for further changes be made, if necessary.

2.2 PCOM (Kidd)

A set of overheads were presented by Rob Kidd outlining the important issues considered at the annual PCOM meeting in December in La Jolla. These issues included:

- **PCOM decisions regarding operations.**

Engineering Development - PCOM is interested in the Hammer in Casing tool, which the committee wants to test at sea as this tool may mitigate problems linked to getting holes in oceanic crust established.

A decision on further development on DCS will be deferred until the April meeting. Kidd notes that the he ODP budget is very tight.

- **SR policy** decision has been made and a new policy is in place. This policy is controversial, however, and continues to be the subject of much debate.

- **Science Plan summary.** The science plan for FY 1997 is comprised of full and partial legs. Kidd explained the history and evolution of the DPG convened for Leg 172. He indicated that this type of approach is likely to happen more often as PCOM begins to consider more multi-leg, multi-platform proposals in the future. The role of the PCOM is science planning and this requires integrating science into Legs.

- **Future.** Kidd noted that PCOM has already undertaken special planning for the Southern Ocean proposal, if selected for drilling, and the Red Sea proposal. He described the current four year track of JOIDES Resolution, which takes ship from the Pacific through the Atlantic towards the western Pacific.

PCOM passed a motion to solicit proposals for multi-leg, multi-platform drilling. An advertisement has been written by JOI and will appear in EOS, Nature, etc.

The new LRP focuses on riser drilling in Phase IV. SSP should consider whether they can handle site survey evaluation for riser drilling or whether a separate panel will be required

Discussion: Shiri asked about the status of NJ. Rob responded that 3 sites on the shelf have been scheduled for drilling and the proponents are asking for more time. SEDCO-FORAX is not required to allow any drilling in less than 75 meters of water. In water depths up to 1000 m, greater requirements for safety will be implemented. Roger asked why the extra time was required for New Jersey. Kathy explained that originally PCOM scheduled three sites for NJ, two on the shelf and one on the slope. Through the special negotiations with the SEDCO-FOREX, TAMU secured approval for three sites on the shelf and one on the slope (total of 4). Thus more time is required. In addition, the proponents would like to do LWD, which will take more time as LWD will be carried out as well as core acquisition.

Roger Scrutton commented that the partial legs may add work for SSP. Rob responded that this may not be the case as there is an effort in getting Thematic Panels to follow a five year plan. If this approach is taken, it is expected that the panels will highlight two or three legs at beginning of a planing cycle and provide a forward look by flagging two more.

NSF wants SSP to consider how SSP will deal with Multi-leg proposal. SSP will have to consider the entire data packet.

Shiri asks about the secondary platform for NJ. Kidd responds that PCOM does not see this as realistic before Phase III. However, options are currently being explored.

2.3 PPSP (Ball)

Legs 71 through 173 have been reviewed for pollution and safety purposes. The data packages specified by SSP and assembled by chief scientists were fine. Some difficulty resulted because of shallow penetration 3.5 kHz data that were used to choose Leg 172 sediment drift sites. PPSP requested that the drill ship's seismic system be used to connect sites to the regional seismics not in the Leg 172 area.

Regarding PCOM's request for input by PPSP in drilling operations by the planned Japanese riser drilling vessel, there isn't sufficient time for a committee wide poll to provide advice to PCOM for passing on the EXCOM in April 1996. PPSP chair's opinion is that the Japanese will desire responsibility for safety decisions regarding drilling from the vessel they own and operate, just as ODP-TAMU, through the ODP-TAMU safety panel, has the final safety clearance for drilling by the JOIDES resolution, for which they are the operators.

2.4 Data Bank (Quoidbach)

Since the last meeting the Data Bank has received 101 data items for 11 proposals. Shipboard data packages were prepared for Legs 165 and 166, and the package for Leg 167 is currently being assembled and should be shipped out at the end of March. Safety Packages were prepared and distributed for PPSP review of Legs 171B&C, 172 and 173, and Dan Quoidbach attended the PPSP meeting in Lisbon.

Since the November SSP meeting at Lamont the Data Bank has rearranged its office to provide additional tabletop

areas for examination of records. Due to expansion of the East Coast Repository into the Lamont MCS storage room, the Data Bank was required to move its "dead" record storage into a new location in the Geoscience basement. While inconvenient, the new area gives the Data Bank more storage space, as well as room for a desk and map cabinet.

In January, EXCOM decided that the Data Bank subcontract would be put out for bid. It isn't yet known when the RFP will be issued, but Lamont will be putting in a bid to continue offering Data Bank services to the drilling program.

The 4D data tracking system that is used by the Data Bank has shown itself to be inadequate for the job as currently designed. A new database will be designed to track data at the site level instead of by entire legs. This will provide the flexibility to more easily accommodate Legs assembled from several parts or from a selection of sites from several proposals. The Data Bank will work with the JOIDES office to make sure that the two systems can easily share information.

Discussion: Rob comments that EXCOM has requested that all service in SSDB be looked at in detail to determine what services are absolutely essential vs those that have built up over the years and which can be dropped because of budgetary constraints. Rob has requested comments from SSP regarding the data bank services for the bidding process. This is to take place in an executive session.

2.5 JOIDES Office (Ellins)

- Proposals received - total of 34 and 6 LOI's. Rev/Add = 20 ; new = 14.
- Proposal evaluation criteria were slightly modified in response to a recommendation from PANCH. These were distributed to all watchdogs for inclusion in the watchdog book.
- Global Rankings. ANTOSTRAT group of proposals was ranked third by SGPP. This panel has recommended to PCOM that a DPG be formed to coordinate ANTOSTRAT objectives and proposals. They recommend that one member of the DPG be a member of SSP.
- The first Euro-colloquium (February) was attended by the JOIDES Office. The Oldenburg Declaration was circulated and Ellins reported briefly on the issues discussed as the ODP-PCOM/EXCOM business meeting.
- USSAC will recommend to JOI BOG that a change to the composition of US representation on PCOM be considered to better reflect the wider participation of the US community in the ODP and to achieve a better balance of expertise on the panel.
- Ellins sailed on part of Leg 165.
- Active proposal Booklet. Proposal 79 (Somali basin) was inadvertently omitted. Ellins will prepare an addendum to the booklet and distribute.

2.6 TAMU (Acton)

ODP/TAMU Recent Activities

- "Semiannual Report of the Science Operator"
 - This report gives a summary of activities at ODP/TAMU.
 - It will be updated about every 2 to 3 months.
 - Both the report and updates are available on the WWW

- WWW access continuing to expand. The following are available
 - ODP Publications (Scientific Results and Preliminary Report)
 - Ship schedule and Leg summaries
 - Info about the Joides Resolution, labs, and computer facilities
 - How to obtain data, samples, photos, etc.
 - General ODP info, staff home pages, and much more.
- 1997 Budget Planning: ODP/TAMU has presented a preliminary budget to the Thematic Panels and BCOM. Basics include:
 - the 1997 budget expected to be flat (~\$38 Million).
 - a handout gives the now out-of-date budget (3 weeks old). The handout shows that the budget has been flat since 1993, during which time the Ships Operations have increased with inflation. This has resulted in a significant redistribution of funds from services to Ships Operations. The result is that ODP/TAMU will have to eliminated some services.
 - Panels/Community are being asked which services they would considered essential and which could be cut.
 - BCOM has suggested redistribution of funds between the Base Expenses and the Special Operating Expenses (SOE) from that given in the budget handout.
 - The budget has not been approved yet; still awaiting input from PCOM.
- Computer Upgrades

Efforts are being made to improve system administration of Unix workstations, including:

 - Better directory structure, user shell scripts (.cshrc files), and manuals that document available hardware and software.
 - Workstations will migrate to Solaris 2.x. One SunOS 4.1.x workstation will be available and seismic software and hardware will be tested prior to converting the workstations in the Underway Geophysics Lab to Solaris.
 - Mac Power PCs on ship were upgraded to 32 Mb RAM.
- Paleomagnetism Lab
 - Two new Molspin magnetometers as of Leg 165 to replace old ones.
 - New cryogenic magnetometer to be installed in June at the San Francisco port call. Old magnetometer will likely be taken to the ODP building in College Station .
- Underway Geophysics Lab
 - New 6-channel streamers to be tested on Leg 168; Difficulties with buoyancy resulted in return of streamers to the manufacturer after Leg 165.
 - Replacement of 3.5 and 12 kHz chart recorders will occur if approved as part of the SOE budget.
 - World-wide Differential GPS not likely to be funded in 1997 budget.

Discussion: DGPS will cost about \$70,000 . Diebold notes that PCODE navigation would be cheaper. Is this being pursued? Shor responds that the JR is not a US ship therefore the US Navy will not permit the use of PCODE navigation on the JR.

Discussion as to whether SSP should recommend to PCOM that some form of differential navigation be put on the ship. SSP finds this rather important for some of the proposed legs. Sandy says if they identify this then they should also tell the proponents so that it gets written into the prospectus and considered as a budgetary item. Rob says that they can recommend to PCOM if it seems to be needed and PCOM will consider. Shiri instructed watchdogs to consider the necessity for DGPS for the proposals/legs that they evaluate and note this in their reports. SSP formulated the following recommendations to PCOM.

SSP Recommendation # 1 to PCOM concerning feasibility of the use of Differential GPS on board JOIDES RESOLUTION: SSP recommends that it should request JOI to direct ODP/TAMU to make appropriate arrangements for the use of a differential GPS on board JOIDES RESOLUTION for those cruises where high accuracy is needed in locating proposed sites. This covers all Legs with the exception of Legs 175 and 176.

Explanatory Note:

In order for J/R to locate the proposed sites with the same accuracy as obtained on many of the US and foreign research ships which were engaged in the site survey work and utilising differential GPS systems, and whose data have been utilised in locating the proposed sites, it is essential that a similar system be used on board J/R. This can only be obtained by the use of differential GPS system in near shore environment.

SSP Recommendation # 2 to PCOM concerning TAMU liaison to attend all SSP meetings a year: SSP recommends to PCOM that it request JOI to direct ODP/TAMU not to reduce their attendance at the SSP meetings.

Explanatory note:

TAMU's budget reduction calls for their liaison representatives to different panels to attend only one meeting per year. This means SSP will have TAMU's liaison attending only one of their meetings per year. It has been found that a number of items discussed during SSP meetings usually require TAMU's input. From the operational point of view it would seem desirable to have TAMU liaison present at all of SSP meetings. It has taken a lot of effort and persuasion on SSP part to establish an effective communication link with ODP/TAMU through their liaison representative and SSP would not like to see it broken. SSP, therefore, requests that efforts be made to ensure that the established communication with TAMU remains unaltered by allowing their liaison member to attend all of SSP meetings.

2.7 NSF (Shor)

See Appendix D for NSF report.

Discussion: Because of the US government failure to pass the budget and to remain in operation by passing a series of "continuing resolutions", NSF has been forced to prioritize their spending. As a result money goes to support essential Projects like the JR, and some small contract awards have been delayed. The US remains strongly committed to ODP through 2003, despite uncertainties about partners and budget. Under normal conditions the US expects to run an ocean drilling program through that time.

3. SITE SURVEY IMPLICATIONS OF RECENTLY DRILLED LEGS

3.1 Leg 164: Gas Hydrate (Paull/Acton)

Charlie Paull, one of the Co-Chiefs from this Leg gave a brief summary of the scientific findings. There were two reasons for discussing the results from this Leg during this panel meeting. One, to learn about the nature of the gas hydrate recovered during this Leg, and two, to assess what implications the results may have for future gas hydrate proposals for data requirements and drilling hazards.

The results emerged from the drilling were (1) excessively large quantity of free gas exists under the BSR at all sites in this region. The gas hydrate occupies 1 to 2 % of the sediment volume in a zone that is 200 to 250 m thick. (2) No significant lateral velocity changes above the BSR were observed from the VSP conducted at the sites. However, velocity as low as 1400 m/s were measured beneath the BSR. Both downhole sonic log and VSP profile data indicated decreasing velocity near the depth of the BSR. This change in velocity may be related to amount of hydrate above the BSR or presence of gas bubble below. (3) Pressure core sampler was most successful in collecting samples on this leg and these samples indicated gas concentration in excess of gas saturation. (4) Gas in the gas hydrate was 99% methane. It is thought that is transported along faults upward from underlying gas hydrate-bearing sediments. The high porosity of the sediments had a large part to play in it too.

Data packet for this leg was excellent. However, for a short period it could not be located on board which caused

some excitement. Perhaps the shipping system needs to be improved.

Discussion: Paull mentioned that it was rather frustrating to have to draft all navigation diagrams for the initial volume when these could have easily been done using navigation files created by the DB for shipboard packages. He suggested that SSDB should think of putting all navigation data from site survey cruises into a GIS system as this will resolve lots of problems when compiling diagrams for the shipboard write up volume. Shiri noted that besides the small scale chart required for shipboard write up big maps of site survey data are essential for the panel and have to be compiled by the data bank before the meeting. This resulted in formulating the action item. The data package for this leg was excellent. However, for a short period it could not be located on board, causing some excitement. Paull suggested that perhaps the system by which the data package is delivered to the ship needs to be improved.

Rob questioned PPSP about their policy on BSR. Mahlon Ball responded that on leg 164 there were clathrates and a BSR but the sediments had very low porosity which made it safer to drill. PPSP would not recommend drilling at other sites with a BSR (considering what we know now about the amount of gas present. PPSP will now have to go back and think about this and may be more concerned in future based on the results of Leg 164. PPSP needs to get together with Charlie Paull to be up-to date on this question. Charlie will attend PPSP November meeting to give a bigger report.

Action item # 2: Question arose about the easy access to the navigational file compiled by the Data Bank for its use on board JR by the scientific party on a given Leg. Dan Quoidbach and Gary Acton, TAMU liaison, to get together to see ways this could be achieved.

3.2 Leg 165: Caribbean Ocean History (Peterson/Acton)

Leg 165 Summary: Larry Peterson presented some of the exciting and diverse results of Leg 165 including: K/T boundary recovery, Caribbean Oceanic Plateau formation/evolution recorded by the basaltic basement, volcanism recorded by ash layers, recovery of unique paleoceanographic records of the Late Paleocene Thermal Maximum interval and the middle/late carbonate minimum, and the high-resolution sedimentary record that will be used to study paleoclimatic/paleoceanographic conditions over the past 200,000 years.

Site survey data for Leg 165 were reported to be quite adequate. Reprocessed seismic data were used to move the site location of Site 998 to avoid a possible fault. Shipboard 3.5 kHz echo sounder data indicated a small gully at the original Site 999 location, and so the site was moved slightly. Better velocity estimates would have been helpful in estimating drill times and readjusting the drilling plan during Leg 165.

JANUS Update: Alpha server and Oracle/JANUS software were installed during Leg 165 port call. During Leg 165, corelogging functions nearly completed, MST data downloading/plotting/depth-computations completed, VCD sheets with susceptibility created, and logging data were downloaded into the data base successfully. To include prior ODP data in the JANUS data base, a budget of about \$3.6 million would be needed. The Underway Geophysics part of JANUS will not be started in 1996; its completion will depend on the 1997 (and later) budget.

Discussion: In some cases, predicted depth to horizons on Leg 165 fluctuated by fluctuated by 110 m or more. For example: at Site 999 the basement turned out to be 100 m deeper than estimated. And Site 998 didn't get to the K/T boundary. SSP should check the estimates of the velocities supplied.

Rob concurs and said that the onus is on SSP because the proponents want to underestimate velocities as this so often is in their best interest. This was a consideration for PCOM in considering the CCB. Accurate velocity estimates are particularly important in cases where specific boundaries are targets for proponents. Roger notes that SSP made a big issue of velocity measurements for 480. Not realizing the existence of ash layers was a factor on Leg 165; also there was no well control. Sandy suggest that the panel should consider whether all paleoenvironment targets should be treated the same.

Action item # 3. DB to revise the ODP Site Survey worksheet to include that accurate velocity information be provided for all holes deeper than 400 m.

4. SITE SURVEY STATUS OF UPCOMING SCHEDULED LEGS'

4.1 Leg 168: Juan de Fuca Hydrothermal Circulation

SSP Watchdog: Sibuet/Quoidbach

SSP Proponent: none

Target Type(s): E and D Open ocean environment with additional requirements for high temperature environments.

Since the Nov. 1995 SSP meeting, in March 1996 the DB has received MCS processed data of the "Hydrocell 95" cruise carried out in spring/summer 1995. During this cruise, 360 km of seismic data (1 GI operated in GI mode, 4 channel streamer) and 380 heat flow measurements with a mean spacing of about 200 meters along some seismic profiles were collected. All seismic profiles are ESE-WNW oriented and have been acquired with a spacing of 1 or 1/2 mile in the area of the previous proposed sites. All of the initially proposed sites have been slightly moved to positions within this new, high quality dataset. Migrated seismic sections sent to the DB are of very good quality and concern all the proposed sites. There are no systematic crossing lines for any of the new proposed sites, but as the spacing of seismic lines in the areas where sites are presently located is 1/2 a mile, there is no systematic need for crossing sections.

As sites proposed in the september 1995 addendum are slightly shifted with respect to their initial positions, we request the proponents to renumber their sites using the new scheme as suggested by JOIDES office, by adding A (for example, PP6 becomes PP6A).

No visual data are available for site PP6A (new PP6 site) for which a hard rock guide base has probably will be used. This would help TAMU to implement a hard-rock guide-base. Proponents are advised to be in touch with TAMU concerning the use of HRGB at this site.

All required data are in the DB so the this leg is declared ready for drilling (1A).

SSP Consensus # 1: Since the Nov. 1995 SSP meeting, the DB has received MCS processed data of the "Hydrocell 95" cruise carried out in spring/summer 1995 in support of Leg 168. As all the initially proposed sites have been slightly moved, it is requested that the proponents to renumber their sites by adding letter A to the new sites (for example, PP6 becomes PP6A) to conform with the new numbering system used by JOIDES office. No visual data are available for site PP6A (new PP6 site) for which a hard rock guide base will probably to be used. The Co-Chiefs are requested to get in touch with engineers from TAMU to discuss the use of HRGB at this site. Migrated seismic sections for all the proposed sites sent to the DB are of very good quality . All required data are in the DB (1A) and so in SSP opinion the data package for this Leg can now be considered complete.

4.2 Leg 169S: Saanich Inlet

SSP Watchdog: Paull/Quoidbach

SSP Proponents: none

Target Type(s): Paleo-environment - shallow water depths ~200m, APC

SSP Consensus # 2: SSP acknowledges the efforts of the Co-Chief of Leg 169S to obtain higher resolution images of the shallow sediment section by reprocessing the existing small volume airgun records. The reprocessed airgun lines will be accepted in lieu of 3.5 kHz data. In SSP opinion the data package for Leg 169S is now complete.

4.3 Leg 169: Sedimented Ridges II

SSP Watchdog: Casey/Quoidbach

SSP Proponent: none

Target Type(s): E Open Oceanic environment (<400m sediments) with additional requirements for high temperature environment.

No new data has arrived in the DB since the November, 1995 meeting. All required data is in the DB, but some of the promised or suggested data has not yet arrived. Previously planned submissions of seismic and some detailed ALVIN dive and geologic maps to the data bank have not yet been deposited, although preliminary versions of some maps were viewed at the November SSP meeting. Improvement of some previously-submitted dive maps which could prove helpful in site location are advised. The drill sites are not plotted on the dive maps and latitude and longitude marks are not included on some maps. In some cases one latitude and one longitude mark is included on each plot boundary and a 200 m scale bar is present. In others, only x-y values (meters?) without latitude and longitude are included.

There are new seismic data from the Ewing-05 cruise collected with differential GPS, but only shipboard copies are in the data bank because navigation has not yet been processed. These should be added when completed.

All required data are in the DB so the this leg is declared ready for drilling (1A).

SSP Consensus # 3: All the required data is provided for Leg 169 and most of the suggested data is provided. The proponents have promised to supply certain additional data such as geologic and dive vent field maps for site location and the newer fully processed Ewing-05 seismic data. The shift between the hydrosweep and older seabeam bathymetry will require a table to be added to the data bank with the corrected latitude and longitude of each site. Latitude and longitude marks and Site locations should be added to all pertinent dive maps submitted to the DB. The final dive and geologic maps and data to be submitted will satisfy the concern of SSP regarding site location (except Site BH-6), but final copies have not been submitted since requested after the November SSP meeting. As the Leg is scheduled for August, 1996, these data should be deposited as soon as possible. The data package should be complete by the July SSP meeting.

4.4 Leg 171B: Barbados Accretionary Prism; 475 **

SSP Watchdog: Sibuet/Quoidbach

SSP Proponent: none

Target Type(s): C (active margins)

All proposed sites are a reoccupation of already drilled sites in North Barbados except for proposed site NBR-8 which is offset about 1 km from site NBR-9 (949B). The SSP is concerned by the fact that NBR-8 is supposed to be drilled 250 m deeper than site NBR-9 (949B). In that case, proponents must be aware that some previous drill hole with core recovery might be required, depending of guidance or safety rules which could be set up for logging while drilling holes.

The proposed sites belong to the drilling environment target C (active margin). The closest profile of the 3D survey is profile 731 which has been sent to the DB. The quantitative qualification is 1A (all required data are in the data bank).

SSP Consensus # 4: All proposed sites are a reoccupation of already drilled sites in North Barbados (Leg 171B) except for proposed site NBR-8 which is offset about 1 km from site NBR-9 (949B). The SSP is concerned by the fact that NBR-8 is supposed to be drilled 250 m deeper than site NBR-9 (949B). In that case, proponents must be aware that some previous drill hole with core recovery might be required, depending of guidance or safety rules which could be set up for logging while drilling

holes. The proposed sites belong to the drilling environment target C (active margin). All required data are in the data bank (1A) and so the data package for this Leg is considered complete.

4.5 Leg 171C: Blake Plateau and Blake Nose (462) **

SSP Watchdog: Lykke-Andersen/Quoidbach

SSP Proponents: None

Target Type: both A: paleoceanography and B: Passive Margin

This Leg was declared ready and there is nothing new to report.

4.6 Leg 172: NW Atlantic Drifts: Neogene Paleoceanography (404-Rev2)

SSP watchdog: Lykke-Andersen/Quoidbach

SSP Proponents: Flood

Target Type: all sites type A: paleoceanography

At the last PCOM-meeting it was decided to dedicate a full leg for this proposal, with the understanding that the objective is extended towards slightly deeper stratigraphic levels (Plio-Pleistocene boundary) in order to make contributions to the high-resolution paleoenvironmental studies of the Late Neogene in the North Atlantic. A Detailed Planning Group has been established by PCOM to implement the adjustments required to obtain the extended objectives.

At the time of the SSP-meeting the discussion concerning the number of sites and the TD's of the sites was not finalized, but the discussions in the panel was guided by the suggestions and questions that was received during the panel meeting from DPG members. Evaluation of the seismic data was done under the assumption that the TD's are the same as was approved by PPSP i.e. 350 m, with the exception of Site BBOR-4A which is suggested to be drilled to 600 m bsf.

The material was examined on a Site-by-Site basis. SSP acknowledges the effort made by the proponents to organize and enhance the data in the Data Bank. Despite the improvements in the data sets, it must be pointed out, that some profiles are still of mediocre quality and/or without adequate annotation.

A major concern of the panel is still that some of the sites are not located exactly on seismic profiles that image the subsurface to the TD. This is unacceptable from two points of view, first it is impossible to assess the exact properties of the sequence at the site, and second that there are no possibilities for regional correlations.

In the following the new sites (BBOR-8B and CS-3B) and sites considered to be problematic are discussed.

BBOR-8B: is located on the crossing point between FAY25 line 3 and Farnella 87-1 line 16. Even the FAY 25 line has a ringing character it appears that mass flow deposits may occur at depths around 100 ms bsf. Thus, if it is decided to drill deeper, problems may arise as to achieve the objectives. In that case SSP recommends that the site is moved 2-300 m along the line towards northwest.

CS-3B: is located on CH06-92 line 43. This high-quality profile shows the presence of an unconformity at about 100 ms bsf, and below that the existence of rotated fault blocks. In order to obtain maximum thickness above the unconformity it may be advantageous to move the site to a position above the lowest point of the surface of the fault block eg. about 400 m down slope along CH06-92 line 43. It is noted that required 3.5 kHz profiles for this site have not been deposited in the DB.

BBOR-3: distance to nearest seismic line in the DB (V2807) is about 2 nm. According to track maps prepared by the DB BBOR-3 seems to be located on line C1012. SSP urge the proponent to provide this line to the DB. In case the quality of the line is unacceptable SSP find it necessary that a line is acquired by the watergun system

aboard JR during its approach to the site.

BBOR-4A: distance to nearest seismic line (C2102 line 87) is about 1 nm. As this site is suggested as a deep site with an estimated TD of 600 m bsf a seismic line containing the site location is definitely required. Considering the importance of the site, SSP finds Greg Mountains suggestion to move the site to the line C2102 and furthermore to shoot both a dip and a strike line by the JR seismic system, well argued and indispensable. The gas-problems that probably will be encountered at the site was discussed based on the experiences gained from Leg 164 sites in the region, and on basis of examination of the seismic line closest to the site (C2102 line 87). There is no clear BSR at the site, but from Leg 164 experiences a BSR-depth of 5-600 m can be expected. Irrespective of the presence of a BSR it must be expected that sediments contain considerable amounts of gas, that probably will hamper the possibilities for obtaining undisturbed cores.

BBOR-6 and 9: closest seismic lines in the DB, CH12-92 and FAY 19, are 1-2 nm away. SSP require that a seismic profile covering the subsurface at least to the TD is acquired through the two sites. SSP is aware that a dense net of seismic lines of good quality already exists in the area between the sites and ODP Site 994. The proponents are urged to contact Bill Dillon, USGS, in order to investigate the possibilities for obtaining these profiles. The profiles will possibly enable correlation with Site 994.

BBOR-7A: nearest seismic profile, Farnella 87-1, is about 1 nm away. A seismic profile should be acquired by the seismic system aboard JR during its approach to the site.

SSP wish to underline the importance of seismic profiles to depth in excess of the TD's. The proponents are asked to make sure that enough time is reserved in the cruise plan to carry out the acquisition of the seismic profiles mentioned above. As some additional data is yet to be supplied to the Data Bank this Leg is rated as 1B.

SSP Consensus # 5 : SSP reiterates the necessity of seismic profiles for imaging the subsurface on all sites to depths exceeding the TD and to ensure the possibility for regional correlation on Leg 172. The proponents and Co-Chiefs are urged to follow the recommendations expressed by DPG and by SSP as stated above. In cases where sites cannot be moved to existing seismic lines, new profiles must be acquired, e.g. as agreed upon in the consensus from the previous SSP meeting, by the wateregun system aboard JR. In selection of drilling depths the proponents should be aware of the presence of structures and sedimentary units e.g. faults and slump masses, that can compromise the stratigraphic high-resolution objectives of the leg.

4.7 Leg 173: Iberia II, Ocean-Continent Transition (461-Rev2)

SSP Watchdog: Enachescu/Quoidbach

SSP Proponent: Sibuet was a participant on a recent site survey cruise.

Target Type(s): B (Passive margin)

No new data has been received by the Data Bank since our last November meeting at Lamont. Maybe this was just only a lapse, since other panels seem to have received at least the data documenting the new location of site IB08B. However, a letter describing this location, its objectives, and Site Summary Form were submitted to the DB.

We understand that the newly acquired data is in an advanced processing stage and will be sent to us sometime during the next few months.

SSP Consensus # 6: Migrated MCS lines displayed at a proper scale, a recontoured basement map and complete documentation for the IBERIA 08B site are required for Leg 173. It is suggested that copies

of these data must be deposited before SSP July meeting so a proper assessment of this site can be made by the panel prior to drilling.

4.8 Leg 174A; New Jersey Shelf II (348)

SSP Watchdog: Flood/Quoidbach

SSP Proponent: PCOM liaison Mountain

Target Type(s): All sites A (paleoenvironment)

No new material has been provided to the data bank since the last SSP meeting. Because of the current revised water depth limitations (Appendix E), Leg 174A can occupy Sites MAT-7B, MAT-8B, MAT-9B, and MAT-13B. The minimum water depth restriction of 75 m was negotiated between ODP/TAMU and Sedco to allow Site MAT-7B (water depth 71 m) to be scheduled. The first three sites are in water depths of less than 200 m, and shallow water survey requirements apply. Side-scan sonar data are to be collected at these sites in spring/summer, 1996. A safety review is scheduled for a fall PPSP meeting. We note that Site MAT-13B has not yet been evaluated by PPSP. New and reprocessed survey data for all sites should be deposited in the data bank as soon as available, preferably before July 1. The Leg is rated as 2B for its readiness.

SSP Consensus # 7: Needed site-survey side-scan sonar data will be collected in spring 1996, and a final safety review is scheduled for fall, 1996 for Leg 174A.

4.9 Leg 174B: CORK Hole 395A (424-REV)

SSP Watchdog: Doug Toomey/Quoidbach

SSP Proponent: None

Target Type(s): C (Active margin)

This Leg was declared ready and no new information has been supplied to the Data Bank since our November 95 meeting. The Leg is judged to be ready from site survey readiness point of view.

4.10 Leg 175: Benguela Current (354add3, 354add4)

SSP Watchdog: Paull/Quoidbach

SSP Proponent: none

Target Type(s): A (Paleoenvironment)

A package of new data for this proposal was received at the SSP meeting. The package included: 1) previously existing digital single channel seismic profiles for Sites MAB-1 and MAB-3; 2) recently collected digital single channel data shot with a GSI gun which included needed crossing lines at NCB-2 and data for the SCB-1 and SCB-alternate sites. All the seismic data was of excellent quality.

The navigation that was provided for the new sites was time based, while the profiles are annotated with shot points. Thus, the data could not be examined in detail. Shot point navigation charts are needed before our July meeting to assess this data. It would be best if these plots were larger than the current page size figures.

The proposal is ranked as 1B as proper navigation data is yet to be supplied to the Data Bank.

SSP Consensus # 8: Lot of new data has been supplied to the Data Bank in support of Leg 175 but lack navigation in shot point so the adequacy of the data can be assessed. It is suggested that the Co-Chiefs supply the required navigation on suitable large scale before July deadline.

4.11 Leg 176: Return to 735B: All Fracture Zone (300 add-2)

SSP Watchdog: Casey/Quoidbach

SSP Proponents: None

Target Type(s): Bare Rock Drilling

This is a two Leg proposal to: 1) deepen Hole 735B and 2) drill five offset holes along a transect across the wave-cut platform in order to penetrate gabbros and possibly peridotites. Alternate back-up sites SWIR 5 and 6 have also been selected for the second Leg. The first Leg is now scheduled as Leg 176. SSP considered only the scheduled Leg 176 to deepen Hole 735B.

SSP regards the first Leg to deepen 735B as having all the required data, but has asked the proponents to submit edited JOIDES Resolution video tape with navigation and 3.5 Khz data in case alternate holes have to be selected during the Leg. Although these have been promised, they have not yet been delivered to the DB. At a minimum video data showing representative alternate sites should be supplied together with the seismic data.

The priorities for Leg 176 for the 735B drilling were defined by PCOM consensus at the Annual Meeting as follows:

1. Deepen existing 735B to k below the seafloor
2. Logging of the deepened hole is a high priority
3. Conduct both Packer and VSP experiments in the deepened hole. As there are limited ODP SOE funds, it will be necessary to identify proponents and funding for these objectives.
4. The following priorities in the event of difficulties in deepening 735B should be maintained:
 - o offset HRGB in present 200 m survey box.
 - o bare rock spud -in at 400 m intervals on flow line.
 - o video survey and distal HR GB deployment.
5. Efforts should focus on the wave cut terrace on which 735B is located. A conjugate basalt site should be drilled as an alternate only as a "LAST RESORT". Recent site survey proposals have not yet been funded, but these are regarded as critical prior to the second Leg for HRGB offset drilling sites as the bottom video or photographic data needs to be supplied prior to a second Leg. Based on criteria established by SSP, the HRGB offset sites and conjugate sites are not considered ready for drilling.

Site survey readiness classification. By considering separate drilling legs it is possible to rank this Leg to deepen 735B as 1A. The second Leg for offset drilling remains as 2C until additional site survey data is collected.

SSP Consensus # 9: SSP appreciates the efforts to supply required data to the DB and the new seismic refraction results prior to the November meeting by the Co-Chiefs of Leg 176. SSP reiterates that all the required data is now available in order to deepen Site 735B. However, SSP continues to request that the proponents edit the JOIDES Resolution video tapes to show the distribution of sediments and slopes near Site 735B. This is important given the potential of selection of alternate sites if difficulties in deepening 735B are encountered (see PCOM MOTION 95-3-11). SSP is interested in seeing the new 3.5 Khz and SCS seismic results from Dr. Tim Minshull for the wave-cut platform. The fully processed seismic data should be deposited in the DB as soon as possible. Track lines and sections should be submitted with sites clearly marked. These should be submitted prior to the July, 1996 SSP Meeting. Offset sites proposed for the second Leg were not considered by SSP because the Leg is not ranked. These data and results of any new site survey data will be important for alternate site selection and continued evaluation of the second Leg of the proposal by SSP and the thematic panels. The proponents are asked to keep SSP apprised of the pending site survey proposal's funding status .

5. POTENTIAL FUTURE DRILLING: TECP

5.1 Taiwan Arc - Continent collision (450-rev)

SSP Watchdog: Sibuet

SSP Proponents: SSP/NSF liaison Shor has been involved in site surveys for this proposal.

Target Type(s): C: Active Margin for sites 1-5,7; D: Open Ocean for site 6

Since the last revision of proposal 450 (Jan. 95) and its examination by the SSP in April 1995, no data has been deposited in the DB. An Ewing cruise was carried out in southern Taiwan during summer 1995. As strongly recommended after the first review of the proposal in April 1994, MCS and OBS data were collected and would support the proposal. These data should be deposited with the Data Bank. In addition, a l'Atalante cruise will be conducted during spring 1996 in this area. SSP recommends to the proponents to send relevant data to the DB and eventually an addendum based on the new collected data with potential new locations of sites. In the 450-addendum, the proponents show that evidence of substantial fluid flow and excess pore-fluid pressures has been documented in the Taiwan subduction/collision system both on land and at sea. If fluid flow becomes a significant objective for some of the sites, proponents must be aware of that heat flow measurements may be required at these sites. For example, heat flow data is not obviously available at sites 1, 4 and 5. PPSP would probably like to see such data. In addition, bottom samples at site 6 would be needed to characterize the seafloor where a reentry cone would be deployed to drill to 1300m depth. The proponents should seek these data.

Of the seven sites, six are categorised as Active Margin while site 6 on the Philippine plate crust to the east is category D, Open Ocean. The proponents are advised to check the requirements for the appropriate categories (C or D) to ensure that their database will be complete. SSP needs to see all these data before confirming their quality and completeness, however, the proponents are urged to start to submit this data to the DB.

Site Survey Readiness Classification: 2A

SSP Consensus # 10: Since the last revision of proposal 450 (Jan. 95) and its examination by the SSP in April 1995, no data has been deposited in the Data Bank. MCS and OBS data were collected during the M. Ewing cruise in summer 1995. In addition, a l'Atalante cruise will be conducted during spring 1996 in this area. Heat flow measurements may be required to document sites 1, 4 and 5. PPSP would probably like to see such data. In addition, bottom sample data at site 6 to characterize the seafloor where a reentry cone would be needed for the 1300m penetration. SSP needs to see all these data before confirming their quality and completeness and the proponents are urged to start to submit data to the DB.

5.2 West Woodlark Basin (447-rev)

SSP Watchdog: Enachescu

SSP Proponent: none

Target Type(s): Sites ACE-1A, 2A, 4A, 5A: B (passive margin); Site ACE-3A F (barerock?)

ODP proposal 447-Rev2 was reviewed during the spring 1996 SSP meeting in Edinburgh. No final migrated data from the recent R/V Ewing 95-10 cruise was received at DB prior to the meeting. However, a newly revised(2) proposal containing documentation for four sites (ACE-1C, 3C, 7A and 8A) and the stack processed data of the 1995 vintage sent to DB, were discussed during the meeting.

Four locations are documented in the revision, two on the down-flexed margin (ACE-1C and 7A), one in the rift basin, crossing the low-angle detachment into the basement (ACE-8A) and one near the crest of the Moresby Seamount (3C). All sites are judged as passive margin targets. Site 3C was considered barerock target prior to recent sampling of the mound. The new acquired or reprocessed seismic lines and coring indicate the presence of ponded sediments covering the mound.

SSP acknowledges that a nearly comprehensive data package has been deposited in the Data Bank including a substantial amount of MCS data. The four proposed sites are feasible and strongly documented. Some of remaining concerns raised by this and other panels, were addressed during the latest Ewing research cruise, when MCS, gravity, mag, 3.5 & 12 kHz echo sounder data, using GPS navigation were collected. However, new concerns have risen from the results of coring the Moresby Seamount. These are largely commented by the SGPP and TECP and are not restated here.

All intersecting lines required for the proposed sites in passive margin setting were collected, but only stack lines were deposited at the Data Bank. Inspection of these lines during the Edinburgh meeting did not allow an

in depth site survey analysis or the final validation of the scientific objectives of the drilling program. Final migrated lines including well bore location, target and total depth are required for advancing the ranking of this proposal.

Initially identified as barerock, the Site 3C is now considered a passive margin-type location with probably 300 m sedimentary rocks ponded on metamorphic basement. No video or photographic data with accurate navigation, to further document this site and planned to be obtained during a late fall 1995 Aus-Can cruise, were yet to be submitted.

Site Survey Readiness Classification : 2A.

SSP Consensus # 11: SSP reiterates that a nearly comprehensive data package supporting drilling in the West Woodlark Basin (447-Rev2) now exists in the Data Bank. The final MCS migrated cross lines are still not supplied. The reviewed proposal contains four feasible sites. Velocity information or depth displayed seismic sections including predicted well bores and total depths are required for complete assessment of this proposal. Site Survey Readiness classified as 2A.

5.3 Western Pacific Seismic Network: 431 (NEW)

SSP Watchdog: Toomey

SSP Proponent: None

Target Type: E open ocean crust with > 400 sediment

SSP discussed proposal 431 for the first time at its spring meeting. No data are in the Data Bank in support of this proposal. SSP discussed each of the 4 sites to determine what data would be required. For each of the sites the data required are: 1) 3.5 kHz data; 2) deep penetration seismic reflection data; data should be capable of defining the basement topography at each site and the time to Moho (A grid of intersection lines would be best for this purpose); and, 3) velocity-depth information from seismic refraction profiles. Clearly, since the purpose of drilling is to provide a "vault" for broadband seismic instrumentation, it is imperative that the site be well characterized in terms of seismic structure. The requested data will be used to evaluate the roughness of the sediment-basement interface, the presence or absence of any intra-crustal reflectors beneath the drill hole, and the crustal thickness and its variation near the site.

Site Survey Readiness Classification: 2C

SSP Consensus # 12 : No data are in the DB in support of the Western Pacific Seismic Network proposal (431). Since many of the requested data may be available if proposed cruises go forward the ranking (according to SSP readiness) is 2C.

5.4 Northern Mariana Trough Back-Arc Basin (442-Add)

SSP Watchdog: Permanent: Tokuyama; Acting: Kuramoto

SSP Proponent: SSP/NSF liaison Shor has been involved in site surveys for this program.

Target Type: C (Active margin)

Since our consideration of this proposal during April 95 meeting no data has been deposited at the Data Bank in support of this proposal. We had stated that swath bathymetry and MCS would be needed at most sites. Some single channel data seem to exist at some of the sites but these have not been deposited to the Data Bank either. We realise the difficulty in obtaining some of the bathymetry data from US Navy but similar data apparently exists with Japanese scientists and the proponents should try to contact them to obtain copies of these data. Similarly data published by Martinez et al. as mentioned by the proponents should be obtained.

Velocity information is vital for drilling the sites proposed here and efforts should be made to obtain these. SSP other concern as expressed in their minutes of April 95 meetings remain.

Site Survey Readiness Classification: As little or no data has been supplied to the DB though some of it may exist the proposal is ranked as 7 for its readiness.

SSP Consensus #13: Judging from the Northern Marianas Rift proposal (442) now and earlier a reasonable quantity of single channel seismic reflection data exist at most sites but this data has not been deposited with the data bank yet. SSP had recommended that a swath bathymetric map covering the entire region of the northern tip of the Mariana Trough and MCS profiles (migrated section) passing through each proposed sites are required. SSP recommends that these data be acquired if already exist with Japanese and/or US organisations and sent to ODP Data Bank as soon as possible. Adequate data does not exist for this proposal in the DB and hence ranked as 7 for site survey readiness.

6. POTENTIAL FUTURE DRILLING: OHP

6.1 Southern Atlantic paleoceanographic transect (464)

SSP Watchdog: Flood

SSP Proponents: Diebold involved in upcoming survey cruise

Target Type(s): all sites A (Paleoenvironment), and D (> 400 m sediment on oceanic crust)

Additional data were provided to the data bank from several sources. (1) Navigation plots for all sites, Parasound data for Sites TSO-1A, and Parasound and Hydrosweep data for Sites TSO-2A, TSO-3A, TSO-4A, TSO-4B, TSO-5A, TSO-6A, TSO-7A, TSO-8A and SUBSAT-3A were received. These data show layering in the upper ca. 100-150 m and local topography. A near-surface slump deposit may exist at SUBSAT-3A, but this has apparently been recognized by the proponents. (2) Additional core descriptions for regional sediment information, (3) navigation for MCS lines submitted previously, and (4) preliminary copies of navigation, hydrosweep and SCS survey data from a recently completed R/V Thomas Thompson cruise were also received.

The new survey data is for Sites TSO-2A, TSO-3A, TSO-5A, TSO-6A and TSO-7A (at positions previously stated), SUBSAT-1A and SUBSAT-3A (surveys not at previously stated sites, and the SUBSAT-3A survey was not at Site 704), and SUBSAT-4 (not previously described in proposal 464). These data are of high quality and generally show ca. 0.5 to 1 second of sediments that appear suitable for the proposed scientific studies. The proponents need to provide (1) processed and redisplayed seismic data, (2) 3.5 kHz data, (3) core descriptions, and (4) seismic velocities. Seismic velocities are needed to convert two-way travel time to subbottom depth in holes over a few hundred meters deep (target type D). We anticipate that new sites will be designated based on these survey data, and that the required data will be submitted to the data bank, by the 1 July deadline. In light of recent high-latitude drilling experiences, proponents are urged to accumulate and submit data which help to clearly define weather windows for safe drilling.

We also note that (1) no sites where basement penetration was proposed were recently surveyed, (2) the southernmost site surveyed and with adequate data is at 53°10'S, and (3) a few of the proposed sites that were not recently surveyed do not have sufficient data in the data bank to be drilled. We are not aware of any planned or scheduled survey cruises to these sites.

Site survey readiness is considered as "2A" because substantial items of required data are not in the data bank, but they are believed to exist and likely to be available in time for consideration for the FY98 drilling schedule.

Site survey readiness classification: 2A

SSP Consensus #14: Data submissions and a recently collected site survey cruise for proposal 464

(S. Ocean paleoceanography) collected much of the required site data. The proponents need to provide processed and redisplayed seismic data, 3.5 kHz data, core descriptions, seismic velocities where penetration greater than 400 m are planned, and information to help define a weather window to the data bank. We also anticipate the designation of new sites based on site-survey data. The proposal is ranked as 2A.

6.2 SW Pacific Gateway: Paleoceanography (441-Rev)

SSP Watchdog: Peterson

SSP Proponents: None

Target Type(s): all Sites A (Paleoenvironment)

Proposal 441-Rev, considered here, builds upon scientific objectives previously developed in the original proposal (441) and the later addendum (441-Add1). However, it is essentially a new, stand-alone proposal with a total of nine sites in the New Zealand Plateau region targeted to investigate the history and evolution of the Antarctic Circumpolar Current and the Deep Western Boundary Current system that feeds deep water into the SW Pacific Ocean. One of the proposed sites appears to be new (with a new, nearby alternate), and several others were initially presented in the original proposal, but then were dropped for the first addendum. Most of the sites are located in sedimentary drift deposits, arrayed in water depths ranging from 310 to 4460 m and spread over a latitudinal range from 39° to 51°S.

No new site survey data have been submitted to the Data Bank since we last considered this program in April 1995. Though a reasonable amount of data have already been submitted in support of sites, a number of items, including various 3.5 kHz records and core descriptions (for sediment characterization), are not yet available. Crossing lines or other profiles from the immediate vicinity of sites are highly desirable. Because some of the sites are intended for fairly deep penetration (>400 m), SSP would like to see velocity data or estimates provided with the seismic profiles. We urge proponents to continue to submit data in a timely manner, properly marked and conforming to published ODP guidelines. We note that the next deadline for data submission is July 1, and that at our late July meeting we will be taking a much more detailed look at site survey completeness than we had time for here.

The proponents note that further survey data will be collected later in 1996 aboard the R/V Tangaroa. Sites SWPAC-1A and SWPAC-6A through -8A will be surveyed at this time, and we assume that new data adequate to properly characterize these sites will be obtained. We wish the proponents good luck in this venture and urge them to keep us informed of its results.

The site survey readiness level for this program is currently considered to be 2B. Pending additional data submission and successful completion of the planned Tangaroa survey, we anticipate this program will be a viable candidate for 1998 drilling.

Site Survey Readiness Classification: 2B

SSP Consensus #15: A revised proposal has been received that identifies a set of nine sites for the SW Pacific Gateway program (441), most of which have been previously proposed. No new data have been received by the ODP Data Bank since our last consideration of this program and significant items are still missing. A site survey cruise to survey four of the nine sites is scheduled for later in 1996 aboard R/V Tangaroa. We urge proponents to continue to submit vital data in a timely manner. Pending data submission and a successful survey cruise, we anticipate this program to be a likely candidate for 1998 drilling.

6.3 SE Pacific Paleoceanography (465)

SSP Watchdog: Peterson

SSP Proponents: None

Target Type(s): all Sites A (Paleoenvironment)

This proposal, first examined at our April 1995 meeting, calls for recovery of Neogene and older sediments in a series of latitudinal and depth transects in the SE Pacific. A recent addendum (465-Add), which updates site selection and addresses previous panel comments, has been highly ranked by OHP and targets top thematic objectives related to the dynamics of mid-depth and deep water hydrography and chemistry, the history of a major eastern boundary current system, paleoproductivity, and tectonic-climate connections. Proponents have gathered much of the available survey data from the region, including new Parasound profiles supplied by D. Hebbeln (Univ. Bremen), and all of the sites have changed position in the addendum to fall on existing geophysical lines. Two new sites have been added to improve the monitoring of latitudinal gradients, giving a total of 15 proposed (and properly renumbered) drilling locations. Scenarios for both a one- and two-leg program are presented.

No data have yet been submitted to the Site Survey Data Bank. However, a package containing data in support of revised drilling targets is currently being assembled for submission by the July 1 data deadline. A draft copy of the data package text was sent to this watchdog for inspection immediately prior to our meeting. Although both the quantity and quality of data appear to be variable from site to site, the available data suggest that all locations will provide viable drilling targets. A site survey cruise has reportedly been funded for early 1997 aboard R/V Melville (pending final word on ship availability) and will fine-tune site locations by using swath mapping, high resolution seismic and 3.5 kHz profiling, and by collecting sediment cores. These data should be sufficient to satisfy all data requirements for target type A (Paleoenvironment) site objectives. We urge the collection of crossing lines at or near all sites to properly constrain subsurface structures.

Concern was expressed by several panel members about the presence of adequate sediment cover at some proposed site locations. Karl Hinz reported the existence of extensive swath bathymetry and MCS data recently collected by R/V Sonne between 19° and about 32° S. Proponents are strongly urged to contact Dr. Hinz to discuss data availability and its potential usefulness to this program.

Site survey readiness is currently considered to be "2B". Pending data submission and successful completion of the planned 1997 site survey cruise, however, we anticipate this program to be a good candidate for 1998 drilling.

Site Survey Readiness Classification: 2B

SSP Consensus # 16: Site locations for SE Pacific Paleoceanography program (465) have been recently revised (465-Add) based on a compilation of existing data for the SE Pacific region. A site survey cruise aboard the R/V Melville has been tentatively scheduled for early 1997 and will further refine all site locations. No data have yet been received by the Site Survey Data Bank, and we urge the proponents to submit their initial data package by the July 1 data deadline. We wish the proponents luck in carrying out their scheduled survey cruise and anticipate that this program will be a viable candidate for 1998 drilling.

6.4 Southern Gateway - Australia and Antarctic: 485 (NEW)

SSP Watchdog: Casey

SSP Proponents: None

Target Type(s): B (Passive margin)

The proposal was reviewed by SSP, although no data was deposited in data bank. The data available for submission to the data base that is included or described in the proposal suggests that all the required data for the Leg has been collected. SSP strongly encourages the proponents to submit SCS, MCS, 3.5 kHz, swath bathymetry, side looking sonar, magnetics, gravity, coring, and sampling data to SSP. All crossing seismic lines should be included for each site. The proponent are referred to Site Survey guidelines for Target Type B, Joides Journal, V20, no. 2 for more information concerning the submission of required and recommended data sets needed for further consideration of the proposal. Inspection of some of the data from the illustrations suggest presence of gas in the upper section of the data which may be of concern to PPSP from safety point

of view. This can only be firmed up from large scale data.

Site Survey Readiness Classification: 2A (but see Consensus).

SSP Consensus #17: This proposal (485) involves drilling between Tasmania and the South Tasman Rise and Antarctica to address Cenozoic climate changes and paleo-ocean current patterns, caused by drifting of Australia northward from Antarctica. No data was submitted to the data bank prior to the March, 1996, so although the proposal and data information within the proposal was reviewed at the SSP meeting, there was no data evaluated. However, based on data requirements for passive margin target types proposed, it appears that all of the required data is available for drilling. The data available includes SCS deep penetration, MCS and velocity, 3.5 kHz, swath bathymetry, high resolution side looking sonar, magnetics, gravity, coring, rock sampling data are available for all sites. SCS high resolution data is available for four of the seven sites. Intersecting seismic lines are available for most of the Sites. SSP request this data and detailed information on the velocity data and depth estimations for each site. Drilling, transit, change over times from XCB/RCB need to be rigorously evaluated. Based on the data description in the proposal, SSP believes that all the required data exists for submission to the data bank. Data pertinent to gas shows at Sites AT1 and AT2 should be submitted for Safety Panel consideration. A ranking of 2A (possibly viable proposal for FY 98 drilling, likely for FY 99) is made, however, this ranking will be dropped if the full data set listed above is not submitted prior to July 1 deadline for its evaluation by SSP at their July meeting.

7. POTENTIAL FUTURE DRILLING: LITH

7.1 Tonga forearc: geodynamics, arc evolution and deformation (451-Rev2)

SSP Watchdog: Diebold

SSP Proponent: None

Target Types: C (Active margin)

This proposal addresses examination of the N-S geochemical variations along the currently-active Tofua arc. These variations would document the effects of changing slab components and successive mantle depletions on the erupted magmas consequent upon the southward propagation of back-arc rifting (Lau Basin) and the changes in underlying plate geometry. The current revision presents the same set of proposed sites as presented in the earlier version reviewed in April 95, but more clearly and systematically states the motivation and methodology proposed to meet the various objectives.

Seven sites are proposed which, together with sites 840 and 841 (Leg 135), make up four transects at 15°, 18°, 22° and 23°S. The targets in the sedimentary cover are predominantly stratigraphic, with a view to interpreting movements of the arc basement as the system evolved tectonically. There are also basement objectives at every site to interpret the history of volcanism. Typically 100-200m of basement penetration is planned beneath up to 500m of sediment. Two sites, TF2A and TF5A, are also proposed to sample hydrothermal alteration products and mineralisation. Sites are in water depths of 315m to 4531m. Seismic profiles through the sites locations show the drilling targets, with the exception of site TF7A where a steep slope makes confirmation of the 10m sediment cover difficult.

Not all of the existing site survey data which are thought to exist have been submitted to the ODP data bank. A significant amount of MCS, SCS, 3.5/12kHz profiles, sidescan sonar, magnetics and gravity and some sampling seems to be available at this time, and the proponents have stated that they are waiting, to also submit 3.5 KHz, SCS and swath bathymetry data from a *MELVILLE* site survey cruise scheduled for May, 1996. Submission of these data, along with the promised compilation of previously existing data, will fulfil

all of the deficiencies previously identified by SSP. 3.5 KHz echosounder coverage is particularly required at site TF7A to confirm the claimed 10m sediment cover so that the need for a hardrock guide base can be eliminated.

Two additional issues must be addressed, and although the scheduled site survey will not provide relevant data, it is thought that the required information exists and can be compiled by the proponents for submission to the Data Bank. Drilling time estimates are dependent on sediment thicknesses, which are in turn estimated based on two-way times and seismic velocities. The SSP has no information on what velocity data have been used in making the proposed estimates. Since a fair amount of MCS data have been acquired in the area, stacking velocities should be obtained and used where appropriate to refine thickness estimates. In addition, true sediment thicknesses and drilling times for sites 840 and 841 may be applicable to proposed sites TF1, TF2 and TF3. Since all the sites are located in a hydrocarbon exploration area, it is likely that PPSP will require to see some data from which thermal gradients, and hydrocarbon maturation potentials can be estimated. Apparently, Shell has drilled several wells on Tonga, for which bottom-hole temperature measurements should be available.

Site Survey readiness classification: 2B

SSP Consensus # 18: It is almost certain that the site survey requirements for Tonga Forearc proposal (451-rev3) will be satisfied by the existing data, and by data soon to be acquired. The proponents should assemble data sets according to site survey target type C, Active Margin. They should also seek information on regional values of sediment velocities and heat flow. Data submission to the Data Bank should proceed soon so that SSP can make a proper evaluation.

7.2 Kerguelen Plateau and Broken Ridge: age and evolution (457-rev2)

SSP Watchdog: Hinz

SSP Proponent: None

Target types: G (topographically elevated features)

This third version of proposal 457 is sufficiently mature according to the LITHP spring 96 review. After a substantial discussion including a review of LITHP's strategy at LIP, the LITHP recommended that

- i. first the proposed sites KIP2B, KIP3A, KIP7A, KIP12A and start of KIP18C should be drilled with basement penetration of 200 m as part of the first Leg A,
- ii. the sites for a possible second Leg B, which will be for deeper penetration into the basement, should be selected after examining the results of the first Leg A.
- iii. elimination of paleoceanographic objectives altogether.

OHP on the other hand rated this proposal fairly for paleoceanographic objectives at different holes. As the LITHP ranking was higher than that of OHP SSP had to consider this proposal mainly from LITHP point of view.

All the above sites are being judged as target types G and require high resolution seismic reflection data together with good velocity information and a grid of intersecting reflection lines.

Although site survey data for ODP Leg 120 are in the Data Bank the seismic coverage of most of the above five sites is insufficient to control the two dimensionality of the basement structure and its sedimentary overburden present. The proponent anticipate further Australian and French site survey on Kerguelen Plateau in late 1996 and early 1997. SSP strongly recommend that the proponents acquire all required and recommended data for target type G for Leg A, and also the required data for target types D at the proposed site KIP18D.

Site Survey readiness classification: 2B

SSP Consensus # 19: The proponents and LITHP have prioritized the proposed sites, and have

defined the following drilling strategy for Leg A; Sites KIP2A/3A/7A/12A and KIP18C to be drilled to a depth of 200 m into basement. On a possible later Leg B deepening of site KIP18C and drilling another site KIP6A on Elan Bank is recommended providing there is a need to do so after examining the results from Leg A. Although the site survey data mostly for ODP Leg 120 and a track showing the existing French, Australian and US seismic MCS and SCS data are in the Data Bank, the data set for this proposal is far from complete to support a two Leg drilling. The proponents should make every effort of sending the existing data to the Data Bank by July 1 deadline so that it could be examined by SSP. They should also keep SSP posted of the plans to acquire additional data at the proposed sites.

7.3 Mass Balance: Izu-Mariana convergent margins (472)

SSP Watchdog: Scrutton

SSP Proponent: None

Target Type(s): D, but A for paleoceanographic objectives at site BON 8A

Since our last meeting there has been little change in the site survey status of this proposal, although the Data Bank has assembled data that exist at Lamont.

With a good MCS line through site BON 8A, velocity control, and a 3.5kHz record, albeit of quite poor quality, there is sufficient data to consider this site ready for drilling as target type D. However, target type A requires a core at or in the vicinity, and better high-resolution seismic profile data. The proponents need to consider how they might obtain these data. Of course, the site can be drilled as target type D, but the scientific achievements as a type A site will be poorer without the high-resolution data. If this site is likely to be a reentry site, core information will be needed.

Site 801C is the reentry of that site from Leg 129. The original site survey data has been assembled by the Data Bank. The proponents have discussed a drilling plan for this site and consider that an alternate site may be needed if chert and hole stability are a problem. SSP would like to see some more specific consideration given to where an alternate site might be. Site 801C itself is ready for drilling.

It is possible that a satisfactory site survey data package can be assembled from existing data. No survey cruise is planned.

Site Survey Readiness Classification: 1B.

SSP Consensus # 20: Progress is being made towards the assembly of an acceptable site survey data package for proposal 472 (mass balance Izu Mariana). The proponents are asked to attend to some outstanding items: core and high-resolution seismic data at site BON8A and alternate site data for 801C.

7.4 Australia-Antarctic Discordance (426)

SSP Watchdog: Toomey

SSP Proponent: SSP/NSF liaison Shor has been involved in site surveys for this proposal

Target type(s): E: open ocean crust <400m sediment

This proposal deals with geochemical mapping and accordingly, geophysical data are to be collected only for site survey purpose. A recent site survey in this area collected single channel seismics, swath bathymetry, sidescan sonar, gravity, magnetics, and dredge samples. With the completion of the site survey, all data required by SSP are believed to exist and are likely to be available in the data bank within the year. Preliminary examples of the data and a cruise report have been submitted to the data bank. However, because the data are preliminary, and because the proponents intend to use their data to revise site locations, the

proposal was not discussed in any depth. The proponents plan to submit a revised proposal, with a new set of sites, prior to the July 1 deadline. SSP expects the proponents will also submit a revised and more complete data package at that time.

All sites for this project are considered to be open ocean sites with less than 400 m of sediment cover; about 100 m of sediment is expected. The proponents will not be drilling at bare rock sites that would require a hard rock guide base. SSP requires the following data for each of the sites: 1) swath bathymetry with the site location clearly marked, 2) SCS data that crosses the site location and clearly defines the depth to basement, and 3) magnetic data that clearly shows the site locations with respect to isochrons and flowlines. Because the drilling strategy is somewhat involved, requiring SSP to examine a large number of sites (18), we request that the proponents make every attempt to organize their data package so that the bathymetry, seismic, and magnetics data can be easily cross-referenced. This requires that sites be clearly marked on each data section, and that the location of each section of data be easily found on an overall map. In addition, it is important that the location and position along a reflection profile be easily referenced to the swath bathymetry.

Site Survey Readiness Classification: 2A

SSP Consensus # 21: Because the proponents of Australia-Antarctic Discordance proposal (426) intend to submit a revised proposal, with revised site locations, prior to the July 1 deadline, SSP did not discuss the data readiness of currently proposed sites. However, all data required by SSP is believed to be available, though not yet in the data bank. SSP classifies the data package as "2A".

8. POTENTIAL FUTURE DRILLING: SGPP

8.1 Red Sea Deeps (481)

SSP Watchdog: Scrutton

SSP Proponents: None

Target types: B (passive margin), E (open ocean crust) and A (paleoenvironment)

There has been no change to the status of the site survey data for this proposal since November 1995. SSP appreciates that it is a major undertaking to assemble the data for the various sites into a coherent package with good navigation maps, seismic profiles annotated with site positions and target depths etc., but at present, with little or no data in the Data Bank in a usable form, it is impossible for SSP to evaluate the site survey readiness of this proposal.

Site Survey Readiness Classification: Because it is reckoned that all the required data do exist, SSP continues to classify this proposal as 2A. There is the additional likelihood that oil industry data exist that would be relevant, e.g. seismic profiles, borehole temperatures.

SSP Consensus # 22: SSP reiterates its consensus of November 1995 that the Red Sea Deeps (481) is an exciting proposal. However, it is necessary for the proponents to prepare for the Data Bank fully annotated maps and sections, velocity data, core logs, heat flow measurements and any other required data for the appropriate target type of each site. SSP believes that all these data already exist. Site Survey readiness is judged as 2A.

8.2 Deformation and Fluid Flow, Nankai Trough Accre. Prism (445 Rev)

SSP Watchdog: Paull

SSP Proponents: Tokuyama

Target Types : C: Active margin

The data package for proposal 445 is incomplete. The following data types need to be provided or modified: 1). A master navigation plots that show all the relevant lines plotted at a useful operating scale with respect to the current sites are needed. 2) The existing seismic lines are annotated with the old Nankai Trough Site designations. Thus, the existing profiles need to be re-labelled or new copies of the profiles be provided with correct labels. 3) Crossing seismic lines for each of these holes are required. The crossing lines at most sites could not be identified. Either crossing lines need to be produced or the sites need to be moved to existing cross lines. 4). The heat flow data has not been deposited in the data bank. 5) No 3.5 kHz data has been deposited. 6). The source of the velocities used to estimate the projected total penetration should be described. 7). The proposed sites need to be plotted on both the Seabeam and side scan sonar data.

Site Survey Readiness Classification: A number of items are still lacking but believed to exist so it is ranked as 2A

SSP Consensus # 23: All required data for Nankai Trough (#445), already submitted to the Data Base in support of ODP Leg 131 and DSDP Legs 31 and 87, exist but in most disorganized fashion. It is suggested these data be organised in the fashion as suggested above or supply copies of the original data showing sites etc. Other required data like heat flow should be submitted in light of the fluid objectives.

8.3 Great Australian Bight (367)

SSP Watchdog: Enachescu

SSP Proponent: none

Target Type(s): B (Passive margin)

A revised version of the Proposal 367 (Rev3) was received in December 1995. This revised version contains most of the site location modifications recommended by this and other panels as a result of previous proposal discussions. The proponents were extremely responsive on all observations and suggestions previously made by the SSP panel and as a result, some sites were moved or added (those with "B" designation). Discussions regarding the final location and drilling platform selection for the shallow water sites are still on going. In the last revision 2 new co-proponents were added and the section on the diagenetic processes and fluid circulation objectives was substantially enhanced. 13 sites are documented located on the inner shelf, outer shelf, slope and continental rise settings. A final decision on the number and location of feasible sites has to be made.

Extensive volume of seismic, magnetic, gravity, geology, water-bottom, current, environment data and excellent documentation exist for this proposal, which is highly ranked by OHP and SGPP. Most of SSP required data is deposited with the DB, some has to be delivered prior to the July meeting. During a recent spring cruise, a complete MCS site survey grid of some 1500 km and .5nm spacing was acquired covering all 12 proposed sites. Adequate acquisition parameters were used and navigation accuracy is considered as very high. Data remains to be processed and send to DB. All sites have now intersecting lines and seismic velocity information.

Concerns, both from technical and feasibility points of view, remain with several sites: the sites GAB-10B, 11A and 12B located in shallow water (under 75m); GAB-9A that probably needs to be slightly relocated to waters over 200m; sites GAB-5B, 6B demanded by OHP to be moved for scientific reasons.

Site Survey Readiness Classification: 2A

SSP Consensus # 24: SSP reiterates that though a nearly comprehensive data package supporting drilling the Great Australian Bight (367-Rev3) now exists, SSP awaits to examine the newly acquired data to make a proper evaluation of this proposal for site survey readiness point of view. The final site survey MCS migrated lines and various other information recently acquired should be supplied to the Data Bank by July 1 deadline. The reviewed proposal contains 13 sites with variants in case of

postponing execution of shallow sites. A final drilling schedule remains to be designed by the proponents prior to the July SSP meeting.

8.4 East Asian Monsoon History. (484) NEW

SSP Watchdog: Peterson

SSP Proponent: none

Target type(s): Mixture of A (Paleoenvironment) and B (Passive Margin)

This is a new proposal which has clearly stimulated the interest of the thematic panels. The proposal calls for the drilling of six sites in the South China Sea to study evolution and variability of the East Asian Monsoon. A companion proposal apparently focuses on tectonic problems in the region and has sites in common with this one; our discussion, however, centred on the paleoenvironmental objectives presented in 484 and the ability of the proposed sites to address them.

The six sites identified range in water depth from 540 m to 2600 m, with penetrations ranging from 325 m to 1750 m into mostly hemipelagic sediments. In looking at seismic profiles included in the proposal in support of the sites, we are concerned, as were the thematic panels, that current site locations are not optimal for answering paleoenvironmental questions which require continuous and relatively undisturbed sedimentary sequences. The presence of apparent erosional hiatuses and complex subsurface structures lead to strong concerns about site safety as well. Sites clearly need to be reviewed and revised by proponents in view of the science objectives, and much better documentation of available survey data will be required. Site SC-1, for example, sits on top of a major unconformity and it would not appear that this is the best location to recover a high-resolution Neogene section. What is the stratigraphic control which suggests that Paleogene sediments are those that are missing? Site SC-2 targets a 1750 m thick section of sediments, but the coring plan on the Site Summary form implies that this site will be triple APC cored, a clear impossibility. Estimates of drilling times and a more realistic coring program are needed. Orientations of profiles are not shown and there is no listing or acknowledgement of other types of data available from the region that will be required for eventual site approval.

SSP encourages the proponents to revise and reconsider site locations in light of recommendations by ourselves and by the thematic panels. Site locations will need to be identified where sufficient data are available to satisfy target type A (Paleoenvironment) requirements for the southern sites (currently SC-5 and -6) and type B (Passive Margin) requirements for the northern sites on the continental slope. The specific data requirements for these target types can be found in no 2 issue of the JOIDES Journal volume 20 or can be supplied upon request. Generally, these will include a grid of high-resolution and/or deep penetration seismic reflection profiles, seismic velocity data for sites where penetration will exceed ~400 m, and lithologic data from sediment cores at the proposed locations. Swath bathymetry is desirable and may be required for certain sites. Geophysical data will need to be supplied with clear navigation records, and data from existing industry wells in the region will eventually be required for safety approval.

Panel members noted that a large quantity of geophysical data should be available from the South China Sea, especially for the northern margin sites. Proponents are encouraged to contact US, German, and French colleagues to inquire about data availability. There may well be some data already available in the ODP Site Survey Data Bank.

Site Survey Readiness Classification: This proposal is currently considered to fall into category 7. Although we are confident that a great deal of data already exist and may be sufficient to target sites without the need for additional surveys, no data are currently in the Data Bank that have specifically been linked to this proposal. We wish the proponents the best of luck in their proposal revision efforts and note our willingness to assist in any way we can.

SSP Consensus # 25: This new proposal to drill in the South China Sea (484) addresses themes of great interest to more than one thematic panel. There is concern, however, that current site selection may not be adequate to meet the scientific objectives proposed. A great deal of survey data are likely to exist in this region, though data presented in the proposal are minimal and inadequately described.

No data have been submitted to the Site Survey Data Bank. Proponents are urged to revise their site selections keeping data requirements in mind for target types A and B. We look forward to seeing this proposal continue to mature and wish the proponents good luck in their efforts.

8.5 Hudson Apron (476)

SSP Watchdog: Flood

SSP Proponent: none

Target type(s): All sites A (paleoenvironment)

476-Add, submitted shortly after the November SSP meeting, brings the proposal into alignment with the seismic profiles collected in summer, 1995, that we reviewed at our November meeting. The drilling plan is now closely tied to the proposed study, and interpreted summary profile is provided. There is still a need for 3D mapping of the surficial and buried slumps, something the proponents suggest is underway using existing data. In November we requested that PPSP preview this proposed study because there were several deep holes (to 710 m) proposed for logging while drilling (LWD; no real-time data provided to the surface) at distances up to 3.5 km from cored holes. PPSP advises us that LWD without a prior core at the same site will be difficult to approve. Measurement while drilling (MWD) apparently provides a real-time resistivity log to the surface, and might be approved without prior coring. However, coring at all sites prior to LWD/MWD is preferable for safety and scientific reasons. In particular, sediment samples are required for determining sediment structure and for determining age. LWD or MWD appears to be particularly valuable for near-surface sections (the top 80-100 m cannot be logged by present techniques) or for unstable sections. However, we are intrigued by other potential uses of LWD or MWD.

Site Survey Readiness Classification: 2A

SSP Consensus # 26: 476-Add ties the drilling plan to the proposed sites. Additional information on the morphology of the near-surface and buried failures needs to be provided, and the acceptable spacing between cored sites and LWD or MWD sites for both scientific and safety reasons needs to be reconsidered. Much of the required data, with the exception of a multibeam survey, may exist in this region because of prior hazards surveys and should be submitted to the data bank. Because of this, a rating of 2A is suggested; however, this rating may change after proponents evaluate existing data in the region and submit to the Data Bank.

9. OTHER BUSINESS

9.1 Long Range Plans (Kidd, Srivastava)

a. & b. SSP reviewing of proposals for Phase III and IV of ODP

Rob Kidd outlined the Long Range Plans and asked the panel to consider the question in two parts; one, how SSP sees their role and that of the DB changing during Phase III of the program which will be using multileg programs and may utilize additional platforms, and two, also in Phase IV of the program when the drill ship with riser capability will be available for drilling in the deep sea and across the margins.

This was discussed at great length by the panel as separate issues. In Phase III if the proposals are aiming for drilling targets with the same drilling depths then the SSP sees no problems. However, where special platforms may be employed it raised a number of problems which many thought should not be of concern to SSP as these will be of engineering type, like sediments compactness etc. On the other hand SSP is supposed to advise proponents on the kind of data to be collected at sites. The question of secondary platform could not be addressed clearly not knowing the nature of these platforms. Many felt that SSP should not be involved in designing the kind of measurements needed for these but should focus on the science that is to be addressed using these platforms. In the case of science, the kind of measurements needed would be guided by the target types as listed by SSP in their guidelines. Whether the proposals are single leg or multileg should not cause any additional problems as the amount and quality of data needed would be the

same. The suggestion that SSP meet twice instead of three times a year, to evaluate these proposals seems incorrect as the kind of problems SSP reviews at these three meetings would still remain the same. The efforts required to evaluate the site survey readiness of multilegs would not decrease the workload of SSP.

SSP role in Phase IV drilling: Discussions over this aspect of the program centred around a suggestion made by Shor that three questions should be considered by the panel under the headings: 1) Data evaluation for non-scientific objectives; 2) Data required for deep crustal drilling; 3) Data required for deep "continental margin" drilling.

1) SSP's concerns expressed for drilling under Phase III were the same for this phase as well. While the SSP, in general, is not eager to expand their role from the evaluation of data in terms of their adequacy to fulfil science objectives, to also include evaluation of data for the engineering and safety aspects of shallow or deep water drilling from platforms other than the *JOIDES Resolution*, they expect (through exposure) to become sufficiently familiar with these issues to be able to tell when such data are absent and required.

2), 3) Successful deep drilling either in deep oceanic environments or in continental margin environment requires the best possible information to determine true X, Y, Z positioning of targets in the presence of structure, and to predict "drillability." The first question will mostly be answered with seismic surveys, designed to provide both three dimensional coverage and velocity information. Whether these objectives are linked via depth migration of 3-D MCS data or through analysis of looser regional grids and wide-angle velocity profiles depends on the structure and drilling objectives.

Safety and feasibility of deep drilling depends on many factors, including downhole temperature gradients, stress, and material properties such as permeability. Several other types of geophysical survey (including heat flow and MT) are likely to be employed in different cases to provide guidance on these issues. When drilling deep holes, it is advisable to conduct downhole logging and other experiments e.g. VSP from time to time in the deepening hole (or in preliminary, shallow holes) to calibrate the site survey results obtained from surface measurements.

Since many of these questions have been addressed by land-based groups, such as the International Continental Drilling Project, it was suggested that they should be approached by some ODP organization, not necessarily SSP, for information and liaison activity, as should land-based deep-crust geophysical groups, including Lithoprobe and Cocorp. Similarly other related issues have been addressed and are presented in JOIDES' Bare Rock Drilling Report, which should be examined. It was felt that the entire question of what measurements should be conducted to image the deeper part of the crust was a difficult one for SSP to resolve alone, although the panel recognised that it was SSP responsibility to see that the required data are deposited by the proponents to the DB for SSP evaluation and thus the panel should make efforts to find out more about these measurements. For this reason a committee of five (Sibuet, Hinz, Diebold, Casey and Enachescu) was appointed to look into this problem. The committee is to report to SSP during their July meeting. SSP in the meantime would recommend to PCOM that serious efforts be made to look into this problem by a special group of people from TECP, LITHP, TAMU and SSP.

Under the present circumstances SSP does not see that its membership would need to be radically changed to evaluate such deep drilling proposals. The present or an evolving membership should be able to provide the required expertise once the type of measurements are sorted out. What is seen, however, is more of a consultation with special group on special problems as need arises.

The question what would be needed for the DB to handle the required data was also discussed. It was felt that the DB should not be involved in handling large digital files created in surveys like 3D but merely the synthesis from such surveys which then can be viewed from the analogue records. In special cases the reduced data may be displayed on a work station. The entire question should be discussed when the question

on the type of measurements is better defined.

SSP Recommendation # 3 to PCOM concerning formation of a special group to look into the problem of imaging deeper part of the crust for drilling. SSP recommends to PCOM that it should form a special group of expertise from TECP, LITHP, SGPP, ODP/TAMU and SSP to look into the ways of finding parameters of the upper crust which would have to be determined for successful drilling to such great depths. This could be similar to what was done for the Bare Rock Drilling using Hard Rock Guidebase.

Explanatory note:

The entire question of imaging the upper and lower part of the crust using new and innovative techniques is being discussed to some extent by a Joint Meeting of ODP and Inter-Ridge held at Woods Hole Oceanographic Institution. It is hoped that it will result in answering some of these questions. Besides this, there are many engineering and scientific questions concerning deep drilling which need to be addressed as well. These perhaps could be better addressed by a group of people who are directly involved in the drilling program. It is for this reason it is suggested that such a group may come from LITHP, TECP, SGPP, ODP/TAMU and SSP. No doubt a meeting of such a group should not be restricted to the group alone but should involve others as well.

c. Shipboard changes at the end of 1998 JR Refit

SSP has no suggestion for incorporation or modification of existing equipment on board J/R at this time.

9.2 Feedback to proponents

Watchdogs should send a letter to the lead proponent of the proposal. For proposals where the usual watchdog was not at the meeting, the acting watchdog prepares and sends the letter, with a copy to the permanent watchdog. In either case, in the letter you should identify yourself as writing in your role as SSP watchdog (or acting watchdog). **For scheduled legs the letter will be sent by Dan Quoidbach in consultation with the watchdog.** If Co-Chiefs for this leg have been named and are not the leading proponent, send copies of the letter and the enclosure to Co-Chiefs as well. The letter should convey the sense of the discussion, plus any additional informal advice or insight you may have to help the proposal/proponent progress through the ODP approval process. With the letter, you should enclose a copy of the section of the draft minutes dealing with the proposal, plus the SSP worksheets (if any) that you filled out for the proposal. Finally, you should send a copy of the letter to the ODP Data Bank, attention Milly Giarratano.

List of things to include:

- the name and contact information of the watchdog,
- a copy of the section of the draft minutes dealing with the proposal,
- copies of the SSP worksheets, if the data package is sufficiently mature to enable the watchdog to fill out worksheets.
- the target types within the SSP guidelines against which each site will be evaluated,
- for each data type classified as "X*" or "Y*", an indication of whether SSP will or will not require this particular data type for these particular sites,
- an indication of additional data types that SSP might require in support of secondary or non-standard drilling objective in circumstances not well covered by SSP guidelines,

- an indication of any potential safety issues,
- for sites in areas of hydrocarbon exploration or production, a reminder that data from commercial wells in the area will eventually be needed for safety review
- for sites in <200m water depth, a reminder of shallow water drilling hazard survey requirements
- for sites in heavily travelled areas or near shore sites, a reminder that information on potential manmade hazards (cable routes, dump sites) will be needed for operational planning
- advice on other investigators who may have relevant data in the region,
- advice on survey ships that may be able to visit the area.
- reminder of timing of next data deadline and next SSP meeting.
- mention about the need to place suitable markers if a HRGB is planned to be used and that the proponents should be in contact with TAMU engineers, in particular with Jay Miller, about it. Enclose a copy of the guidelines on marking these sites using submersibles as outlined by Jay Miller from TAMU.
- Send a copy of your watchdog letter to Milly Giarratano, ODP Data Bank.
- Send the watchdog letter to the lead proponent of the proposal. Ask Shiri for advice if there is not a single obvious lead proponent with whom to communicate.
- Send a copy of "Quantitative Classification of proposals" with your letter.

9.3 JANUS (Ellins/Quoidbach/ACTON)

The role JANUS is playing in putting most shipboard data onto a retrievable system and how the JANUS system can be used to store underway geophysical data was described by Ellins and Acton. It was felt by most that the actual data should be stored at the DB but what actually exist should be mentioned. One member of the relevant JANUS advisory user group is looking into this problem and it was decided that Dan Quoidback should get in touch to investigate ways in which the required information can be stored in this system.

Action item # 4: Dan Quoidback to contact Willford Sager from TAMU to discuss the ways his sub-group are planning to handle storage of underway information on JANUS.

9.4 Panel Membership (Srivastava)

German ODP council has nominated Karl Hinz to serve for another term on the panel. We have one US vacancy coming up on the panel. Doug Toomey is resigning from the panel starting July 96 because of his heavy commitments with teaching and his coming sabbatical leave from his department.

SSP Consensus # 27: SSP has enjoyed working with Doug Toomey for the past two and half years and would like to thank him for his very valuable contribution to the working of this panel.

The question about Doug's replacement was discussed and it was decided that the panel should have a seismologist as Doug's replacement considering the need to have a similar expertise on the panel during implementation of LRP in the coming years. Three possible candidates were suggested and if they agree to

serve on the panel their names together with CV will be forwarded to PCOM by Srivastava.

Action item #5 : Srivastava to write to PCOM Chair with the suggested list of names of candidates as replacement for SSP member Doug Toomey.

9.5 Next meeting (Srivastava)

Dates for the next two meetings were discussed and it was decided to leave them as originally planned i.e., July 29 to August 1, 1996 at LDEO and November 11 to 13, 1996 at LDEO. John Diebold would not be able to attend July meeting because of his involvement on a cruise.

Action item # 6 : SSP Chair Srivastava to contact TECP Chair for a member from their panel to act as an alternate for John Diebold for July meeting.

The question for next spring meeting was then discussed. Countries which could host next meeting are Germany, and Japan. The question of hosting next meeting was circulated by Srivastava earlier. Our Japanese member has extended to host next spring meeting in his country. Possible dates for this meeting were discussed. It was decided to hold this meeting from April 7 to 9, 1997. Our Japanese colleague will let Srivastava know if these dates are agreeable to others in Japan on his return.

Action item # 7: Tokuyama, Japanese member to SSP to let SSP Chair Srivastava know about the suitability of April 7 to 9, 1997 as the dates for holding next SSP meeting in Japan.

Action item # 8: Srivastava, Chair of SSP, to write to PCOM asking for their permission to hold next meeting in July at LDEO.

9.6 Other business

Ellins raised a question about the policy all ODP organisations should follow concerning sites designation as was formulated by SSP and approved by PCOM in 1994. This is specially important when a proposal gets to the drilling leg stage and the sites proposed are not numbered using this approved system. During a recent safety panel review one of the proposal did not have its sites numbered using this new scheme. The question arose regarding whose responsibility it is to ensure that the sites discussed at such meetings are numbered properly. After some discussion it was agreed that as the safety check sheets are prepared by the Data Bank together with proponents that it would make more sense if they would spend bit more time and ensure that all sites get properly designated before the safety check sheets get sent out to all concerned.

SSP Consensus # 28: It was agreed that the responsibility for correct designation of sites for each Leg in the safety sheet would lie with the Data Bank from now onward.

9.7 Data Bank management (Executive session)

An executive session to discuss the management of the DB was held and the outcome from this session will be communicated to PCOM Chair by Srivastava.

Appendix A

Site survey readiness classification of proposals considered during March96											
Global ranking	1. Viable for 98		2.Possibly viable for 98; likely for 99			3. unlik. 98 possible 99		4.impos. 98	5. impos. 98	6.Not consid.	7.Not consid.
	1A	1B	2A	2B	2C	3A	3B				
T-1			450								
T-2			447								
T-3					431						
T-4											442
S-1			481								
S-2			445								
S-3			367								
S-4											484*
S-5			476								
L-1				451							
L-2				457							
L-3		472									
L-4			426								
O-1			464								
O-2				441							
O-3				465							
O-4			485								

* -- see detail comments

Quantitative Classification of proposals (Scrutton)

Site Survey Readiness Classification Scheme.

- 1. Presently viable proposal for FY 98 drilling.**
 - 1A.** All required data are in the data bank
 - 1B.** A few required items are missing from the data bank, but data are believed to exist and to be readily available.
- 2. Possibly viable proposal for FY 98 drilling; likely for FY 99**
 - 2A.** Substantial items of required data are not in the data bank but are believed to exist and are likely to be available in time for consideration for FY 98 drilling schedule.
 - 2B.** Substantial items of required data are not in the data bank, not believed to exist but could be available in time for consideration for FY 98 drilling if a **scheduled** site survey proceeds as planned.
 - 2C.** Substantial items of required data are not in the data bank, not believed to exist but could be available in time for consideration for FY 98 drilling if a **proposed** site survey proceeds as planned.
- 3. Unlikely for FY 98; possible for FY 99.**
 - 3A.** Required data are not in the data bank, not believed to exist but are likely to be available in time for consideration for FY 99 drilling if a **scheduled** site survey proceeds as planned.
 - 3B.** Required data are not in the data bank, not believed to exist but could be available in time for consideration for FY 99 drilling if a **proposed** site survey proceeds as planned.
- 4. Impossible for FY 98:** Required data are not in the data bank and not believed to exist. Data could be available after FY 98 if a **proposed** site survey proceeds as planned.
- 5. Impossible for FY 98:** Required data are not in the data bank and not believed to exist. A site survey needs to be conducted but is not proposed at this time.
- 6. Not considered** because data in the Data Bank does not match present proposal; awaiting a new proposal.
- 7. Not considered** because no data has been submitted to the data bank.

Appendix B
Preliminary 1996 Spring Global Rankings

Panel	LITHP		OHP		SGPP		TECP	
Rank	Number	Title	Number	Title	Number	Title	Number	Title
1	448-Add2	Ontong Java Plateau *	464	Southern Ocean Paleooceanography	481	Red Sea Deep	450	Taiwan arc-continent collision
2	480	Caribbean-LIP *	441-Rev	SW Pacific Gateway	445	Nankai Trough	447	Woodlark Basin
3	481	Red Sea Deep	465-Add	SE Pacific paleoceanography	Generic	Antostrat	431	Western Pacific Seismic Network
4	451-Rev3	Tonga Forearc	376-Rev3	Cenozoic Carbonates in the Great Australia Bight	367-Rev3	Cenozoic Carbonates in the Great Australia Bight	445	Nankai Trough (deform. & fluids)
5	Generic	Seismic Boreholes	484	East Asian Monsoon History in S.China Sea *	484	East Asian Monsoon History in S. China Sea	442	Northern Mariana Rift
6	457-Rev3	Kerguelan LIP	485	Southern Gateway - Australia & Antarctica	476	Hudson Apron	484	East Asian Monsoon History in S.China Sea
7	472-Rev	Izu-Mariana: Mass Balance	449+448	Mesozoic Weddell Sea Weddell Sea	472	Izu-Mariana mass balance	451	Tonga Forearc
8	426-Rev	Australia-Antarctica Discordance	452-Rev2	Antarctic Glacial History of Sea level Change	455-Rev	Laurentide Ice Sheets Outlets	Generic	Crust Structure

Panel	<u>LITHP</u>		<u>OHP</u>		<u>SGPP</u>		<u>TECP</u>	
Rank	Number	Title	Number	Title	Number	Title	Number	Title
9	420	Evolution of Ocean Crust	455-Rev	Laurentide Ice Sheet Outlets	453	Bransfield Strait Antarctica	Generic	Mass Balance
10	442	Mariana Trough Backarc Basin	483	ACC - Scotia Sea and Falkland Trough	355	Gas hydrates/ Peru Margin	457-Rev3	Kerguelan Plateau
11			457-Rev3	Kerguelan Plateau	478	East Nankai multiple Shortening	463	Shatsky Rise
12			490	Prydz Bay - Glacial Sea Level History	464	Southern ocean Paleooceanography	492	Taiwan Arc-Continental Collision
13			477	Sea of Okhotsk and Bering Sea	471	Nicaragua Mass Balance	481	Red Sea Deeps
14			486	Paleogene Equatorial Pacific APC Transect	355	Gas hydrates/Peru margin	Generic	Earthquakes
15			472-Rev	Izu-Mariana mass balance	449	Mesozoic Weddell Sea	Generic	Vertical Tectonics
16			482	Wilkes Land Margin	467	W. Mediterranean Sea Level.	475	Physical properties at accretionary wedges (Costa Rica)
16					479	Felsic volcanics-Manus Basin Sulphides	Generic	Low angle faults
17					493	Okinawa Trough	355	Gas hydrates/Peru margin
18					450	Taiwan arc-continental collision	334	Galicja Margin

<u>Panel</u>	<u>LITHP</u>		<u>OHP</u>		<u>SGPP</u>		<u>TECP</u>	
Rank	Number	Title	Number	Title	Number	Title	Number	Title
19					444	Joban Margin Sea Level Fluctuations	448	Ontong Java LIP
20					447	Woodlark Basin	Generic	Back-arcs
21					454	East Australian Current	479	Felsic volcanics-Manus Basin Sul-fides
24					436	Campeche Bank	480	Caribbean Lip
25							Generic	NARM
26							476	Hudson Apron

* - not ready for SSP consideration

Appendix C

SSP Watchdog Assignments Scheduled Legs										
<i>Leg</i>	<i>Proposal Name</i>	<i>Prop. No.</i>	<i>Nov 1993 (Lamont)</i>	<i>April 1994 (B-rest)</i>	<i>July 1994 (Lamont)</i>	<i>Nov 1994 (Lamont)</i>	<i>APRIL 1995 (BIO)</i>	<i>July 1995 (Lamont)</i>	<i>Nov 1995 (Lamont)</i>	<i>March 1996 (Edinburgh)</i>
166	Bahamas Transect (sea level & fluid)	412-Add	Sibuet	Sibuet	Sibuet	Sibuet	Enachescu/Quoidbach	Enachescu/Quoidbach	data set complete	data set complete
167	California Margin	386-Rev, 422-Rev	Camerlenghi	Lykke-Andersen	Camerlenghi/Tokuyama	Tokuyama	Camerlenghi/Quoidbach	Flood/Quoidbach	Flood/Quoidbach	data set complete
168	East Juan de Fuca hydrothermal	440	not yet submitted	Srivastava	Srivastava	Srivastava/Casey	Casey/Quoidbach	Quoidbach	Sibuet/Quoidbach	Sibuet/quoidbach
169	Sedimented Ridges II	SR-DPG	Srivastava	Srivastava	Srivastava	Srivastava/Casey	Casey/Quoidbach	Quoidbach	Casey/Quoidbach	Casey/Quoidbach
170	Costa Rica acc. wedge	400, 400-Rev	not discussed: not in FY 95 prospectus	Lykke-Andersen	Camerlenghi	Peterson	Tokuyama	Tokuyama/Quoidbach	Tokuyama/Quoidbach	Data set complete
171B	Barbados LWD	475							Sibuet	data set complete
171C	Blake Nose	462		not yet submitted	discovered in DB cubbyhole	Mountain	Mountain	Lykke-Andersen	Lykke-Andersen	data set complete
172	NW Sed Drift	404	Mountain	Mountain	Mountain	Mountain		Lykke-Andersen	Lykke-Andersen	Lykke-Andersen/Quoidbach
173	Iberia II (NARM-non-volcanic)	461, 461-add	Mountain	Mountain	Mountain	Mountain	Mountain	Diebold	Enachescu	Enachescu/Quoidbach

SSP Watchdog Assignments Scheduled Legs										
<i>Leg</i>	<i>Proposal Name</i>	<i>Prop. No.</i>	<i>Nov 1993 (Lamont)</i>	<i>April 1994 (B-rest)</i>	<i>July 1994 (Lamont)</i>	<i>Nov 1994 (Lamont)</i>	<i>APRIL 1995 (BIO)</i>	<i>July 1995 (Lamont)</i>	<i>Nov 1995 (Lamont)</i>	<i>March 1996 (Edinburgh)</i>
174A	New Jersey Shelf II	348-add		Kastens	Farre	not in prospectus	Kastens	Flood	Flood	Flood/ Quoidbach
174B	CORK 395A/Engineering	424							Toomey	Toomey/ Quoidbach
175	Benguela Current	354-Rev, 354-Add	not in 95 prospectus	Farre	out of geo. area	out of geo. area	Hinz	Lyle	Lyle	Paull/ Quoidbach
176	Return to Hole 735B	300-rev	Srivastava	Srivastava/ Quoidbach	out of geo. area	out of geo. area	Casey	Scrutton	Casey	Casey/ Quoidbach

SSP Watchdogs
Highly Ranked Unscheduled Proposals

<i>SR '94</i>	<i>FR '94</i>	<i>SR 95</i>	<i>FR 95</i>	<i>SR 96</i>	<i>Title</i>	<i>Prop.</i>	<i>April 1994 (Brest)</i>	<i>July 1994 (Lamont)</i>	<i>Nov. 1994 (Lamont)</i>	<i>April 1995 (BIO)</i>	<i>July 1995 (Lamont)</i>	<i>Nov 1995 (Lamont)</i>	<i>March 1996</i>
		T-5	--	--	Peruvian Margin /Gas Hydrate	355-Rev5	-----	-----	-----	Camerlenghi	Diebold	not in prospectus	----
		S-6	--	S-4, O-4	Australian Bight Carbonate	367	-----	-----	-----	Enachescu	Enachescu	not in prospectus	Enachescu
L-1, O-1	O-1, L-6, S-6	L-2	L-4, T-7	L-2	Caribbean	384rev3, 408R2, 411, 415-Rev, 480	Mountain	Hinz	Scrutton	Hinz	Scrutton	Casey	outside area of operation for 1998
L-5		L-5	--	L-8	Austr.-Antarc. Discordance	426	Kastens	out of geo-graphic area	out of geo-graphic area	Kastens	Enachescu	not in prospectus	Toomey
				T-3	W. Pacific Seismic Network	431							Toomey
		L-6	--	L-7, S-7	Izu-Mariana Mass Balance	(435-Add2), 472	-----	-----	-----	Scrutton	out of geographic area	not in prospectus	Scrutton
		S-7	--	S-13	Nicaragua	(435-Rev), 471	-----	-----	-----	Scrutton	Scrutton	not in prospectus	ranked low

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SSP Watchdogs Highly Ranked Unscheduled Proposals													
<i>SR '94</i>	<i>FR '94</i>	<i>SR 95</i>	<i>FR 95</i>	<i>SR 96</i>	<i>Title</i>	<i>Prop.</i>	<i>April 1994 (Brest)</i>	<i>July 1994 (Lamont)</i>	<i>Nov. 1994 (Lamont)</i>	<i>April 1995 (BIO)</i>	<i>July 1995 (Lamont)</i>	<i>Nov 1995 (Lamont)</i>	<i>March 1996</i>
O-5			--	O-2	Southwest Pacific Gate-way	441	Peterson	out of geo-graphic area	out of geo-graphic area	Peterson	out of geographic area	not in prospectus	Peterson
T-5		T6	--	T-5	Mariana back-arc basin	442	Tokuyama	out of geo-graphic area	out of geo-graphic area	Tokuyama	out of geographic area	not in prospectus	Kuramoto
		S-4 T-7	--	S-2, T-5	Nankai defor. & fluids	445-Rev	-----	-----	-----	Camerlenghi	out of geographic area	not in prospectus	Paull
T-1		T-1	T-3, O-7	T-2	W. Woodlark Basin	447	Farre	out of geo-graphic area	out of geo-graphic area	Enachescu	Enachescu	Enachescu	Enachescu
		L-3	--	L-1	Ontong Java Plateau origin	448				Tokuyama	out of geographic area	not in prospectus	not quite ready
T-3		T-3	--	T-1, S-18	Taiwan arc/-cont collision	450	Sibuet	out of geo-graphic area	out of geo-graphic area	Scrutton	out of geographic area	not in prospectus	Sibuet
		L-7	--	L-4, T-7	Tonga Forearc	451-Rev2, Rev3				Scrutton	out of geographic area	not in prospectus	Diebold

SSP Watchdogs Highly Ranked Unscheduled Proposals													
<i>SR '94</i>	<i>FR '94</i>	<i>SR 95</i>	<i>FR 95</i>	<i>SR 96</i>	<i>Title</i>	<i>Prop.</i>	<i>April 1994 (Brest)</i>	<i>July 1994 (Lamont)</i>	<i>Nov. 1994 (Lamont)</i>	<i>April 1995 (BIO)</i>	<i>July 1995 (Lamont)</i>	<i>Nov 1995 (Lamont)</i>	<i>March 1996</i>
		L-4	L-4, T-5, S-6	L-6, T-10	Kerguelen Plateau	457-Rev. Rev3				Hinz	Tokuyama	Tokuyama	Hinz
		O-3	O-3, S-5	O-1, S-12	Southern Ocean Paleoceano.	464	----	----	----	Peterson	Flood	Peterson	Flood
		O-6	--	O-3	SE Pacific Paleoceano.	465-Add	----	----	-----	Peterson	Tokuyama	not in prospectus	Peterson
		T-4	T-4, L-6		Romanche FZ	468	-----	-----	-----	Kastens	Diebold	Toomey	ranked low
			S-4	S-6	Hudson apron	476						Flood	Flood
			L-2, S-2	S-1, L-3	Red Sea	481						Scrutton	Scrutton
				O-5, S-5, T-6	E. Asian Mon- soon History	484							Peterson
				O-6	S. Gateway Australia- Antarctica	485							Casey

Appendix D

NSF Budget Information, March 1996

FY 1996:

Although we are now 50% of the way through the Fiscal Year, NSF remains without a budget for FY'96 (10/1/95-9/30/96). Spending has been based on a series of "Continuing Resolutions." The most recent of which is the tenth of the year, and expires 3/29. Spending has been pro-rated through the year, delaying starts of some awards, but up to now NSF has managed to maintain the major facilities and programs (such as ODP Operations, USSSP and the UNOLS Ship Operations) without interruption. The expected final budget level for FY'96 is essentially unchanged from FY95, although in this year of political uncertainty, until a final budget is passed and signed, that cannot be taken for granted. There is some chance a final budget resolution will be passed this week.

FY 1997:

The budget process has begun for FY'97, despite the stalemate over the current year. The FY'97 request is shown below, together with actual figures for FY'95 and our best estimate of FY'96:

	FY' 95	FY' 96	FY' 97	Change %
Ocean Sciences Support	\$102.60 m	\$103.02 m	\$110.18 m	7.0
Oceanographic Centers and Facilities	\$50.45 m	\$47.70 m	\$53.65 m	12.50
Ocean Drilling Program	\$39.76 m	\$39.85 m	\$41.04 m	3.0
Total OCE	\$192.81 m	\$190.57 m	\$204.87 m	7.5 %

NSF Funding Status, Ocean Drilling Program

Field Program, 1995-1997

1997:

Mix & Pisias	Southeast Pacific Paleooceanography	Early '97, Melville
Stephen et al	OSN Pilot Experiment, near Hawaii (Joint W/MGG,EAR)	Early '97, Revelle
Becker	CORK visit, Juan de Fuca Ridge with ROV('97) and Alvin ('98)	Summer '97, '98

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1996

Duncan	Beatta Ridge Submersible Study	Jan '96, Nautila
Sempere et al	Australia-Antarctic Discordance	Jan '96, Milville
Hodell et al	Southern ocean Paleooceanography	Feb '96, Thomson
Carson et al	Barbados CORK Hydrogeology	Feb '96 Nautila
Bloomer	Tonga Forearc Petrology/Tectonics	Summer, Melville
Webb	Middle Valley Seismicity (Joint w/M-GG)	August, Wecoma; (Recovery OBS's May '97)
Plank et al	Nicaragua/Costa Rica ¹⁰ Be Anomaly	Summer, Jeeps

1995

Lyle et al	California Current	June '95, Ewing
Fisher et al	Middle Valley fluid/heat flow (Joint w/MGG)	July '95, Ewing
Reed et al	Taiwan collision MCS (Partially supported from Taiwan)	Sept '95, Ewing
Holbrook	Gas Hydrates offset VSP	Oct '95, Hatteras

Engineering Development, 1995-1997

1996

Pirmez	Gamma-Ray Logging tool development
Becker	CORK Instrument Fabrication

1995

Orcutt et al	Ocean Seismic Network instrumentation development (Joint w/MGG)
Becker	High Temperature logging tool acquisition

NSF Ocean Drilling Program Unsolicited: Grant Proposals

Last Target Date: 2/15/96
Proposals presently out for mail review
Panel meets 5/13/96

This is the second of two annual panels considering **field** program proposals for CY 1997. We also consider engineering development, synthesis, and other proposals which are expected to lead to future drilling or drilling-related science.

ODP received 13 proposals for consideration this time, of which 8 are for field programs. We also expect to consider **joint** support of 3 -5 other proposals submitted to the Marine Geology and Program if they receive favourable review.

Despite the uncertainties of the US Federal Budget, we are not anticipating major changes in the size or emphasis of the unsolicited grants program of ODP at this time.

Appendix E

Current Revised Water Depth Limitations

Water Depth (m)	Well Bore Conditions	Environmental Factors	Equipment Limitations
0 - 75	Zone of complete exclusion for well bore operation		
76 - 300	1,2,3,4	5,6,7	8,9
301 - 650	2,3,4	6,7	8,9
651 - 1000	4	7	8,9
1001 - 8700	-	7	8,9

1. Increased awareness of shallow gas potential, possibly triggering HAZOPs analysis
2. Immediate hole conditioning required when drag encountered.
3. Perhaps for rapid disconnect*
4. Special procedure if stuck in hole **
5. Well bore operations cease @1.5m heave.
6. Well bore operations cease @40kt wind.
7. Well bore operations cease if floating ice present in area.
8. Over-pull limitations calculated daily.
9. Maximum allowable stress on drill string posted at drill floor.

* - Special hardware to be developed. Two systems are envisioned. One is a surface mounted hydraulically actuated shear ram. The second system is a subsurface, in-drilling shear joint which can be commanded from the surface.

** - More conservative stuck pipe procedures employed. Procedures being developed. Such procedures will limit overpull, and shorten the duration of stuck pipe operations before severing is initiated (explosive or remote release).