Final (September, 1996)

MINUTES

JOIDES SITE SURVEY PANEL MEETING

July 29 - August 1, 1996
Lamont-Doherty Earth Observatory,
Palisades, New York, USA

Members: Srivastava, Shiri (*GSC Atlantic, Canada*) -- Chair
Casey, Jack (*U. Houston, 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*)
Sibuet, Jean-Claude (*IFREMER, France*)
Toomey, Douglas (*U. Oregon, USA*)

Alternate: Kinoshita, Masataka *(TU, Japan)*
Scholl, David *(USGS, USA) ---TECP Rep.*

Liaison: Malone, Mitchell (*ODP/TAMU*)
Ball, Mahlon (*PPSP*)
Ellins, Kathy (*JOIDES Office*)
Quoidbach, Daniel (*ODP Data Bank*) -- Host
Shor, Alexander (*NSF*)
Kudrass, Hermann (*PCOM*)

Apology: Mountain, Greg (*PCOM*)
Tokuyama, Hidekazu (*ORI, Japan*)
Diebold, John (*L-DEO, USA*)

AGENDA

JOIDES Site Survey Panel Meeting
July 29 - August 1, 1996
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Palisades, New York, USA

1. **PRELIMINARY MATTERS** (Srivastava)
   - 1.1 Introduction of members, liaison, guests and meeting logistics.
   - 1.2 Charge and procedures for the meeting
   - 1.3 Watchdog assignments
   - 1.4 Feedback to proponents
   - 1.5 Action items from March 1996 Edinburgh meeting
2. **REPORTS**
   - 2.1 PCOM (Kudrass)
   - 2.2 PPSP (Ball)
   - 2.3 Data Bank (Quoidbach)
   - 2.4 TAMU (Malone)
   - 2.5 NSF (Shor)
   - 2.6 JOIDES (Ellins)
3. **SITE SURVEY IMPLICATIONS OF RECENTLY DRILLED LEGS**
   - 3.1 Leg 166: Bahamas (Sibuet/Malone)
   - 3.2 Leg 167: California margin (Flood/Malone)
4. **SITE SURVEY STATUS OF UPCOMING SCHEDULED LEGS**
   - 4.1 Leg 169: Sedimented Ridges II (Casey)
   - 4.2 Leg 172: NW Atlantic Drift ; 404 (Lykke-Andersen)
   - 4.3 Leg 173: Iberia II; 461 (Enachescu)
   - 4.4 Leg 174A: New Jersey II; 348 (Flood)
   - 4.5 Leg 175: Benguela Current; 354 (Paull)
   - 4.6 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)
   - 5.4 442: Northern Mariana Back Arc Basin (Kinoshita)
6. **POTENTIAL FUTURE DRILLING: SGPP**
   - 6.1 481: Red Sea Deeps (Scrutton)
   - 6.2 445: Nankai Trough Accretionary Prism (Paull)
   - 6.3 367: Great Australian Bight Carbonate (Enachescu) PPSP
   - 6.4 476: Hudson Apron (Flood)
7. **POTENTIAL FUTURE DRILLING: OHP**
   - 7.1 464: Southern Ocean Paleoceanography (Flood)
   - 7.2 441: SW Pacific Gateway: Paleoceanography (Peterson)
   - 7.3 465: SE Pacific Paleoceanography (Peterson)
   - 7.4 485: Southern Gateway-Australia and Antarctic (Casey) PPSP
8. **POTENTIAL FUTURE DRILLING: LITHP**
   - 8.1 451: Tonga Forearc (Scholl/Srivastava)
   - 8.2 457: Kerguelen Plateau (Hinz)
   - 8.3 472: Mass Balance: Izu Mariana (Scrutton)
   - 8.4 426: Australian Antarctic Discordance (Toomey)
9. **POTENTIAL FUTURE DRILLING: ANTARCTIC PROPOSALS**
   - 9.1 452/453: Antarctic/Bransfield St. Glacial History (Lykke-Andersen)
   - 9.2 502: Palmer Deep (Peterson)
   - 9.3 490: Prydz Bay Glacial History (Sibuet)
   - 9.4 503: Weddell Sea: Evolution and Paleocirculation (Hinz)
   - 9.5 482/489: Wilkes Land- Ross Sea, Antarctica: Paleoceanography (Paull/Casey)
10. **OTHER BUSINESS**
    - 10.1 LRP Implementation (Ellins)

10.2 SSP role in new set up (Srivastava)
10.3 Report of SSP subcommittee on Phase IV of ODP (Casey, Srivastava)
10.4 Review of Conflict of Interest Policy (Ellins)
10.5 Panel Membership (Srivastava)
10.6 Next meeting (Srivastava)
10.7 Other business

* --- For Legs 168 and 170, 171B, 171C, 174B data sets were approved at previous SSP meetings and no changes have taken place since.

PPSP - items in the proposal of concern to PPSP

Executive Summary

Charge and procedures for this meeting (Srivastava)

The goals for this meeting were: (1) to evaluate the site survey readiness of proposals that were highly ranked at the spring thematic panel meetings and are within the geographic area of operations for FY'98 defined at the April PCOM meeting; (2) to advise proponents of these proposals about data that they need to acquire and/or submit to the Data Bank in order to become contenders for FY'98 scheduling; (3) to evaluate the site survey readiness of legs scheduled for drilling; and (4) to assess any site survey issues arising from legs that were drilled since our last meeting. The main customer for the output of the SSP summer meeting is PCOM, who use the evaluations resulting from item (1) above as input into the process of creating the prospectus for FY'98 drilling; PCOM will create this Prospectus at their August meeting.

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

SSP Recommendation # 1 to PCOM concerning development of a joint JOIDES Office/Site Survey Data Bank database system: SSP, in consultation with the JOIDES Office and the Site Survey Data Bank, recommends that PCOM request JOI to initiate discussions with the JOIDES Office and the SSDB on the joint development of a new database system for managing drilling proposals and site survey metadata which will replace the current 4th Dimension databases in both offices. This database should be set-up with both the SSDB and the JOIDES Office having the ability to access and update the files. Sufficient additional resources should be allocated to allow this database system to be implemented and maintained.

Explanatory Note:

The JOIDES Office uses the 4th Dimension relational database management system as the engine for managing JOIDES drilling proposals. The Site Survey Data Bank uses 4D to track site survey metadata. Currently there is no link between these two database systems. This makes it difficult for the Data Bank to obtain up-to-the-minute information on site locations, and also prevents the JOIDES office from having immediate access to the status of site survey datasets. A jointly developed proposal/metadata tracking system would eliminate these two problems, and increase efficiency in the proposal review system.

Additionally, both the JOIDES Office and the SSDB 4D databases are currently suffering from problems with data corruption and inflexible reporting systems. Each office has contemplated revamping their systems independently, but the drilling program would be better served if they coordinated their efforts.

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Action item # 1 . SSP Chair Srivastava to write to PCOM Chair asking for permission to hold next SSP meeting at LDEO from November 11 to 14, 1996. He is also to inform PCOM Chair about dates for the next two meetings.

Action item # 2. SSP Chair Srivastava to write to LITHP Chair for a member from their panel to act as an alternate for Doug Toomey for November meeting.

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SSP Consensus # 1: All the required and most of the recommended data are provided for **Leg 169**. The proponents have promised to supply certain additional data such as geologic and dive maps of the vent fields 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. A corrected bathymetry map has been provided. The final dive and geologic maps and any additional data should be submitted to the DB prior to the Leg. Copies of the promised dive maps have not been submitted since requested at several previous SSP meetings. SSP regards these maps to be important for site location. Any update made to Site locations should be transmitted to the DB. As the Leg is scheduled for August, 1996, these data should be deposited as soon as possible or added to the shipboard data package. The data package should be completed prior to the ship's departure.

SSP Consensus # 2 : The data packages for **Leg 172** is now declared ready.

SSP Consensus # 3 : All sites for **Leg 173** are well documented from Site Survey readiness point of view. A complete set of migrated MCS lines, intersecting the approved sites and a recontoured basement map, constructed from interpreted migrated sections, must be submitted prior to the November meeting.

SSP Consensus # 4: Side-scan sonar data for shelf sites and data and locations for any newly proposed or relocated sites for **Leg 174A** (New Jersey Shelf II) need to be submitted to the Data Bank by the November 1 deadline.

SSP consensus # 5: As requested, navigation maps that indicate the positions of the seismic reflection profiles with respect to shot point numbers for Leg 175 (Benguela Current) were provided. Thus, the site survey data for ODP **Leg 175** is complete and ready for drilling.

SSP Consensus # 6: SSP reiterates that all the required data is now available in order to deepen **Site 735B (Leg 176)**. 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 any 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 November, 1996 SSP Meeting. Offset sites proposed for the second Leg were not considered by SSP because the proposal is not ranked.

SSP Consensus # 7: An addendum for proposal **450 (Taiwan Arc-Continent Collision)** based on newly collected data was supplied on July 1, 1996 and data were deposited in the DB at the same time. MCS and OBS data collected during a M. Ewing cruise carried out in southern Taiwan during summer 1995 were supplied. In addition, a l'Atalante cruise was conducted in June 1996 in the northern area of this proposal where sites TC-2, TC-6 and TC-7 are proposed. In the absence of cross lines at the sites, adjacent 6 channel lines to the proposed sites from the Moana Wave cruise, collected at a spacing of 5 miles, must be deposited in the data bank. Seismic velocity determinations of the Ewing MCS lines in the area of the sites are also requested as well as refraction data if available in the areas of proposed sites and 3.5 kHz profiles across proposed sites. As some data is still missing from the data bank but believed to exist the proposal is rated 1B.

SSP Consensus # 8: SSP acknowledges that a complete data package supporting drilling in the **West Woodlark Basin (447-rev3)** now exists in the Data Bank and recommends that the proposal is advanced in the ODP rankings. The reviewed proposal contains four feasible, well documented sites. Site Survey Readiness Classification: 1A.

SSP Consensus # 9 : 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 (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).

SSP Consensus # 10: We appreciate the efforts made by the proponents of proposal **442 (Northern Mariana Back Arc Basin)** for supplying some of the required data to the Data Bank. However, because of the poor quality of the data supplied the sites could not be evaluated properly. In addition some of the required data is still lacking and no definite plans exist for collection of this data. It is recommended that serious efforts be made by the proponents in acquiring the required data and depositing good quality existing data to the Data Bank prior to November 1 deadline if they wish this proposal to be considered for drilling in 1998/1999.

SSP Consensus # 11: At present the site survey data for the **Red Sea (481)** are disorganised, although there has been some data submission since the March 96 SSP meeting. The proponents should use the likely upcoming site survey cruise as a catalyst for the assembly of well organised and documented site survey packages for all their proposed sites. The need for alternate sites should be born in mind. The proposal is ranked as 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).

SSP Consensus # 12: Some new data was provided for **Nankai Trough (445-Add 2)** proposal, but the data

package remains incomplete. While the volume of data that is currently in the data bank document that the general region is data rich, the available site specific data are rather limited. The following data types need to be provided: 1). A master navigation plots that show all the relevant seismic lines plotted at a useful operating scale with respect to the current sites is required. 2) Crossing seismic lines for each of these sites are needed. The crossing lines at most sites could not be confidently identified. Either crossing lines need to be produced, the sites need to be moved to existing cross lines, or some argument be made as to why this is unnecessary. 3) No 3.5 kHz data has been deposited. The proposal is rated 2A because 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 provided the proponents would take trouble to assemble them and send to the data bank (Nov. 1) in time for consideration at the next SSP meeting.

SSP Consensus # 13: A complete set of migrated MCS lines, intersecting the approved sites has been collected and brute stacks are in the DB for proposal **367 (Great Australian Bight)**. Migrated lines, horizon maps constructed by interpreting migrated sections and velocity information with plots of site holes on the new sections, must be submitted prior to the November meeting. Site survey readiness: 2A.

SSP Consensus # 14: Measurement while drilling (MWD) is required for this project **(476, HAT)** if uncored holes are not at the sites of cored holes. Also, a three-dimensional interpretation of available data is needed to support the placement of logged and cored sites. The proposal remains rated 2A.

SSP Consensus # 15: Site survey data for proposal **464 (Southern ocean paleoceanography)** is complete and in the Data Bank except for secondary site TSO-1A and synthesis of site-specific and regional velocity information. TSO-2A is renamed TSO-2B in line with JOIDES Office guidelines. The proposal is rated 1B, and we anticipate the final requested items to be submitted by the November 1 deadline.

SSP Consensus # 16: New data in support of three of nine SWPAC sites of proposal **441 (SW Pacific gateway paleoceanography)** have been received since our last SSP meeting, and plans continue for an early 1997 survey cruise which will conduct additional surveys at four sites. The proposal, therefore, is ranked 2B. However, significant items are still missing from the Data Bank and numerous inconsistencies exist within data already submitted. We urge proponents to clarify questions regarding existing data and to continue to submit missing vital data items as soon as possible. SSP looks forward to seeing results from the spring survey cruise and wishes the proponents luck in completing their site survey data package.

SSP Consensus # 17: A large and comprehensive compilation of existing regional survey data has been submitted to the Data Bank by proponents of the **SE Pacific Paleoceanography program (465)**. Though much of the data is old and of variable quantity, the data set clearly demonstrate the potential at all proposed sites for recovery of good sediment sections. An NSF-funded survey cruise currently scheduled for early 1997 will re-survey each of the 15 proposed sites and we anticipate that site locations will be adjusted accordingly. We wish the proponents good luck in carrying out their scheduled survey cruise and look forward to seeing the final results submitted in a timely manner after the cruise.

SSP Consensus # 18: Significant new data has arrived at the data bank for southern gateway proposal **(485)** and the proponents are thanked for the high quality of the data submitted. Based on data requirements for target types proposed, it appears from the proposal that most of the required data is available for drilling. The proponents are encouraged to submit all additional required and recommended data as soon as possible. Processed 6 channel seismic lines with navigation are also expected as promised by the proponents. The data bank has the shipboard monitor records of this data . Data pertinent to gas shows at Sites WT1 and WT2 should be submitted for Safety Panel consideration. All materials should be in the data bank by the November, 1996 SSP meeting for consideration for FY 98 drilling. As some required data is still lacking from the data bank, and believed to exist, the proposal is ranked as 2A.

SSP Consensus # 19: The greater part of the required site data for **Toga Forearc (451)** now resides in the Data Bank. That not included, but to be supplied soon, principally involves underway geopotential data and larger-scale reproductions of site-crossing SCS profiles gathered by the *Melville*. Swath mapping and sidescan data from the *Melville's* Seabeam 2000 system have been sent, but, as of this writing they were not observed in the Data

Bank. The vessel's 3.5 kHz system failed to recover usable data, thus site-crossing high-frequency subbottom profiles remain unavailable. High-resolution profiles exist, however, for many, but not all, of the sites selected along data-sets gathered on other cruises. Remain matters are linked to more accurate calculations of drilling time by integrating velocity information and checking on the accuracy of the calculated thickness and drilling time to penetrate the sedimentary section at new site 08A. With the arrival of Melville data at the Data Bank this proposal could be considered a viable candidate for 1998 drilling.

SSP Consensus # 20: SSP acknowledge the efforts of the proponents of **Kerguelen Plateau proposal (457)** to complete the site survey data set for the proposed sites which in its present form is still not satisfactory to support a two leg drilling. The proponents should keep SSP further posted of the plans to acquire additional data at the proposed sites. The proposal is ranked as 2C (data could be available for 98 drilling pending on planned cruise).

SSP Consensus # 21: A good data package has been assembled for **Mariana Margin (472)**. With one small exception, the package is complete (ranked as 1A) and the proposal is ready for drilling. If any paleoceanography objectives are intended, a good quality SCS profile through the BON site must be collected by the JOIDES Resolution.

SSP Consensus # 22: It is most unfortunate that in spite of the serious efforts made by the proponents of Australia - **Antarctic Discordance proposal (426)** satisfactory seismic and 3.5 kHZ data do not exist to judge the sediment thickness at all sites. Taken the available data as a whole, however, it does appear as though sedimented areas exist within the AAD. Some 3.5 kHZ data collected on other cruises near by the proposed sites exist but these are not in the data bank. In view of the lack of strict site location in this proposal it is possible that the final site selection can be done using the high resolution data collected from J/R on approaches to the sites but in the absence of a general sediment thickness map for the region such an approach can be very time consuming. The proponents are thus urged to compile this information from all existing data in the region so that this question can be examined again at the next SSP meeting. The proposal is judged to be ready for drilling in other respects.

SSP consensus # 23: Data submitted to the data bank in support of **Antarctic Peninsula Pacific Margin (452/453)** drilling program are generally of good quality. However, a number of primary and alternate sites require seismic profiles and 3.5 kHz data. A refined velocity model will enhance the data package. Some safety concerns exist at a few of the sites and PPSP may hold a preview of this proposal if it becomes a Leg. A number of sites needs alternate sites. The proposal is ranked as 2A.

SSP Consensus # 24: Data already submitted in support of **Palmer Deep (502)** drilling come close to satisfying SSP requirements for target type A drilling. Navigation data for the seismic survey need to be supplied, as well as the accompanying 3.5 kHz profiles for both the primary and alternate sites. This program is ranked as 1B in terms of readiness. SSP urges the proponents to submit the final few vital data items to the Data Bank in a timely manner and wishes them luck in the scheduling of this exciting site-of-opportunity.

SSP Consensus # 25: There is a large amount of seismic lines on the continental slope but just a few lines in the deep ocean. The quality of these lines, acquired by different institutions (BMR, Japan and Russia), cannot be evaluated as no data have been deposited in the Data Bank. Like the other Antostrat proposals, where the proposed penetration is larger than 400 m, we have classified all the sites of this proposal **(Prydz Bay proposal, 490)** as target B (passive margin), even though these sites have paleoenvironmental objectives. MCS data and crossing lines with velocity analyses together with 3.5 kHZ data are required. As data of a planned site survey would be deposited in the Data Bank by July 1, 1997, the site survey readiness of the proposal is judged as 2B.

SSP Consensus # 26: It is almost certain that the site survey requirements for the **Weddell Sea proposal (503)** will be satisfied by the existing data, and by the data soon to be acquired during the both forthcoming cruises. The proponents should assemble the data sets not only for the proposed sites but also for recommended alternate sites and submit it before November 1 deadline should it get highly ranked by the thematic panels during the fall meeting.

SSP Consensus # 27: Substantial amounts of data appear to exist for **Wilkes Land - Ross Sea proposal**, but no

data is yet in the data bank. Both proposals are classed as target type B (passive margin) . Additional data is proposed to be collected on an upcoming Spanish cruise, which if successful could provide all the needed data for the Ross Sea. For Wilkes Land new seismic and 3.5 kHz data from the Italian cruise ('97,'98) or resulting from a pending NSF proposal would be necessary prior to consideration, if indeed 3.5kHz data is not available. In addition, the ice and weather windows will be difficult to meet during of a super-leg of 82 days and should be carefully considered in the revised proposal.

SSP Consensus # 28. SSP would like to thank both Kathy Ellins and Sandy Shor for their contributions to the working of this panel. Their efforts in steering this panel to keep on tracks have been most valuable. We wish them both all the best in their new endeavours.

SSP Consensus # 29. SSP would like to thank TECP for providing David Scholl to substitute for John Diebold, the absentee SSP member and David Scholl for doing such a superb watchdogging job.

SSP Consensus # 30. SSP would like to thank Roger Scrutton and Dan Quoidbach for hosting the March and July meetings in Edinburgh and at LDEO respectively. Both of them have been superb host for these meetings. SSP would also like to thank the staff and associates of ODP Data Bank for their help during the meeting at Lamont.

Minutes
JOIDES Site Survey Panel Meeting
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Note: These minutes are arranged in logical order for ease of reading, and do not reflect the exact order in which items were discussed at the meeting.

1. PRELIMINARY MATTERS (Srivastava)
1.4 Introduction of members, Liaisons and guests and meeting logistics.

SSP Chair Srivastava welcomed all those present, especially the new member, Mitch Malone the acting TAMU liaison, David Scholl, member from TECP who substituted John Diebold as John was at sea. It was followed by a self introduction by all. Dan Quoidbach, the host for this meeting, welcomed the members, outlined the logistics and provided information about the various facilities at LDEO which members needed to use during the meeting.The minutes of March 96 meeting and the agenda for this meeting were approved unanimously. As the meeting was spread over four days, the first day was devoted to examination of data by the panel members. The minutes of March meeting were accepted with no corrections.

1.2 Charge and procedures for this meeting (Srivastava)

SSP Chair Srivastava described the charge for this meeting: (1) to evaluate the site survey readiness of proposals that were highly ranked at the spring thematic panel meetings and are within the geographic area of operations for FY'98 defined at the April PCOM meeting; (2) to advise proponents of these proposals about data that they need to acquire and/or submit to the Data Bank in order to become contenders for FY'98 scheduling; (3) to evaluate the site survey readiness of legs scheduled for drilling; and (4) to assess any site survey issues arising from legs that were drilled since our last meeting. The main customer for the output of the SSP summer meeting is PCOM, who use the evaluations resulting from item (1) above as input into the process of creating the prospectus for FY'98 drilling; PCOM will create this Prospectus at their August meeting.

Srivastava outlined how the SSP operates and explained the significance and timing of the three SSP meetings.

1.3 Watchdog assignments

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

1.4 Feedback to proponents

SSP Chair Srivastava stressed the need for the panel members to send their watchdog letters to the lead proponents as soon as possible after the meeting. Appendix B gives a list of things to be include in the letter.

1.5 Action items from March 1996 Edinburgh meeting

All action items were taken care of by those responsible. Action item where TAMU was involved are described in TAMU's report.

2.REPORTS

2.1 PCOM (Kudrass)

PCOM met in Aix en Provence, France, April 22 - 25. The three major themes of this meeting were: the adoption of the advisory structure to the LRP, decisions on priorities of the technological developments and special operation expenses, and issues related to the conflict of interest.

PCOM had started the discussion of the new advisory structure by email and after intensive discussions at Aix a first set of recommendations were sent to EXCOM. At its Oslo meeting EXCOM set up a subcommittee which finalized the first complete draft of the advisory structure. (see Kathy Ellins report below).

Diamond Coring System: Considerable time was spent on the discussion of the continuation of the DCS development for which $1.3 M were already invested. TEDCOM had reviewed the present status and was satisfied by the results of the developed well control unit. The program seems to be feasible and would allow to make the next step, which requires the installation of accelerometers onboard of the JR at Leg 169. During the next step a hydraulic system has to be built at costs of $551,000 to control the weight-on-bit and test the equipment with realistic conditions on land. After positive tests the controller system can be adapted to the ship and the first test will be possible in 1999. PCOM approved funds for the FY 97 hoping that spin off effects of the controller will also improve the primary heave compensation system and that the overall performance of drilling operations will benefit.

Hammer Drill - in - Casing: A smaller hammer for a 7" casing will be tested in June 96 onshore in Australia. In case the system performs well, a more powerful hammer must be developed for ODP at costs of about $300,000 which should be able to emplace a 40 m long 16" casing. The new system might be ready for a test during the CORK/engineering leg 174 B. The hammer is anticipated to penetrate different kind of rocks even on sloping surfaces and thus it will reduce the need for TV seafloor observations to locate proper places for the installation of reentry cones.

JANUS: A first version of the system was installed onboard in December 95 and since then the stepwise implementation of the data acquisition for the four data groups started. The programs for the first two data groups are hoped to be finalized during the present leg. Funds for the image capture and for a fist step of a core description were provided for the FY 97 leading into the second phase of the JANUS project . These data acquisition will be needed to accelerate, enlarge and improve the contents of the IR volumes.

Publications: As a consequence of the stable budget situation and the steadily increasing costs for operations and technological improvements, the costs for publications have to be cut once more. This move was also requested by the US Inspector General Office in a letter to the NSF Ocean Science Division. PCOM suggested to return to the model of DSDP publication policy. A single volume is published as a kind of monograph 48 months post-cruise containing the contents of present IR and SR volumes. Data will be mainly contained on CD-ROM. Participants will be permitted to publish in the outside literature 12 months post-cruise without prior approval of the scientific party. However, manuscripts have to be submitted to the Editorial Review Board to check for the proper use of the data and the rights of other members of the scientific party. Three months post-cruise an initial core description volume will be published, which will be mainly used for further sampling. Legs 164, 165, and 166 have the option to publish in the outside literature. This publication policy was endorsed by EXCOM at its Oslo meeting.

Minileg in the Gulf of Mexico: Oil industry is moving into deeper water depths and the new installations will consist of

floating units anchored at the sea floor. The design and dimension of the anchors depend on the geotechnical properties of the uppermost 100 m of sediments. The HPC of JR seems to be an ideal tool to investigate these properties. The Offshore Technological Research Center at College Station will initiate a workshop to be held in June 96 at Houston at which it might suggest the use of JR for this research. PCOM stressed that it would be necessary to demonstrate how this minileg contributes to the scientific goals of ODP and that it would be extremely difficult to squeeze the leg into the present schedule.

SSP recommendations to PCOM: ODP TAMU should investigate the possible use and costs of a differential GPS; Liaisons of TAMU should attend the meetings of the SSP; and the working groups of the InterRidge Workshop in Woods Hole will be asked to include site survey requirements for deep oceanic crust drilling in their agenda.

2.2 PPSP (Ball)

The safety panel has completed reviews through LEG 173, IBERIA II. During the panel's next meeting, September 19 - 20, 1996 at College Station, Texas, Leg 174A, New Jersey margin, Leg 175, Benguela Current, and Leg 176, Return to 735B will be reviewed. Site 395a, being corked during leg 174b was reviewed previously. A preview of proposed drilling in the great Australia Bight (proposal 367 rev3) is also planned for the September meeting.

2.3 Data Bank (Quoidbach)

The Data Bank received 657 new data items since the last SSP meeting. The bulk of these submissions came in after the July 1 data deadline. Quoidbach requested that the SSP watchdogs stress to the proponents that these deadlines are strict, and that data received after the deadline will be set aside until the following SSP meeting. The next data deadline is 1 November 1996.

The Data Bank prepared seagoing packages for Legs 167 and 168, and is now in the process of assembling the Leg 169S/169 package. Problem with info that Bob Zirenberg promised to send, like his geological maps are not yet received. He has been informed about them. It is assumed that he will carry it with him and send copy to the data bank. Jay Miller argues that his package is not that important for locating sites.

The Data Bank has been experiencing problems with their 4th Dimension database system. Corruption of records is becoming common, an experience which is being shared by the JOIDES Office with their own databases. Quoidbach suggested linking the JOIDES Office and Data Bank's databases more closely together and jointly developing a new database system. This database would be hosted at the Data Bank to provide continuity even during JOIDES office moves. It was noted that such an increase in duties would require additional resources in personnel and equipment in the Data Bank. An SSP recommendation to PCOM was then written.

Data Bank staff attended the project management seminar held at the Borehole Research Group in July.

> **SSP Recommendation # 1 to PCOM concerning development of a joint JOIDES Office/Site Survey Data Bank database system: SSP, in consultation with the JOIDES Office and the Site Survey Data Bank, recommends that PCOM request JOI to initiate discussions with the JOIDES Office and the SSDB on the joint development of a new database system for managing drilling proposals and site survey metadata which will replace the current 4th Dimension databases in both offices. This database should be set-up with both the SSDB and the JOIDES Office having the ability to access and update the files. Sufficient additional resources should be allocated to allow this database system to be implemented and maintained.**

Explanatory Note:

The JOIDES Office uses the 4th Dimension relational database management system as the engine for managing JOIDES drilling proposals. The Site Survey Data Bank uses 4D to track site survey metadata. Currently there is no link between these two database systems. This makes it difficult for the Data Bank to obtain up-to-the-minute information on site locations, and also prevents the JOIDES office from having immediate access to the status of site survey datasets. A jointly developed proposal/metadata tracking system would eliminate these two problems, and increase efficiency in the proposal review system.

Additionally, both the JOIDES Office and the SSDB 4D databases are currently suffering from problems with

data corruption and inflexible reporting systems. Each office has contemplated revamping their systems independently, but the drilling program would be better served if they coordinated their efforts.

2.4 TAMU (Malone)

° ODP/TAMU report focuses on recent updates or highlights of Semiannual Report of the Science Operator

° Project Management is being initiated to enhance efficiency and effectiveness of service and support provided by ODP/TAMU

- All employees received training on the elements of Project Management -implementation plan that phases in the transition to a project-based operation over the next 21/2 years.
- all special operation projects for FY97 are to be project managed,
-first component of leg-based management (pre-cruise activities) will be introduced this August.

° Five-Year Plan : Currently in the process of creating a five-year program plan that aligns the mission and goals of our service components, and their supporting activities, with the goals of the Long Range Plan.

° Reorganization : In conjunction, the programmatic goals identified in the five-year plan will be used to help us establish whether our presently defined organizational framework is best suited to achieve the goals defined in our five year plan. We plan to have this analysis, and any suitable changes in our organization, completed by Fall

° New Operational Schedule : The approval of LWD for Leg 170 has eliminated the need for a transit from Panama to Barbados (Leg 171A) and subsequent Barbados port call. Barbados LWD is now called Leg 171A and will begin in Panama and Blake Nose is now Leg 171B.

° Publications : -Brief review of recent developments in ODP publications; Summary of new proposed publication strategy that was presented to and endorsed in principal by EXCOM and will be considered by PCOM in August.

° Underway Lab Working Group : The new six-channel streamers were installed on Leg 168. Testing will take place during 168 and 169 as permitted, however, no seismic surveys are planned for either leg.

Specific Recommendations or Action Items from March 1996 minutes:

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

The ODP/TAMU Underway LWG has been instructed to compile a report concerning options and feasibility of global dGPS onboard the JR to be presented at the upcoming PCOM.

SSP requested that ODP/TAMU liaison report on site selection and site survey data related to the drill-in casing test and other engineering tests (Leg174B) at the next meeting. Tom Pettigrew reports that all Leg 174B Engineering sites will be reoccupation of Leg 153 sites.

John Diebold recommended that the JR start using a GI gun instead of a watergun, but thought it unlikely in view of the cost. Considering the good service record of the present guns and the present funding climate,this is currently not being pursued.

2.5 NSF (Shor)

Shor briefly presented the FY 96 NSF Ocean Science Division budget (Appendix C), noting that the final budget was only sorted out earlier this summer after long delays. He pointed out the modest (0.5%) increase, which did not directly affect ODP (flat) but primarily was used to increase the Ocean Sciences Research programs. He noted that the

ODP Grants Program, which supports many programs evaluated by SSP, remains little changed at bit over $5 million annually. He provided brief synopsis of the six field programs which will take place in 1997 (Appendix C). He also noted that while he will remain at NSF for one more year, he is leaving ODP next month, and that an advertisement is out searching for a replacement.

2.6 JOIDES Office (Ellins)

- The sad and untimely passing of Rob Kidd was noted and Ellins read a passage that he had requested be read at his funeral service.
- The JOIDES Office received 43 proposals and 4 LOIs for the July 1 proposal deadline.
- PCOM: At the April meeting, PCOM developed a new advisory structure for JOIDES in response to a request from EXCOM. A draft of the proposed new JOIDES Advisory structure was prepared by the JOIDES Office and submitted with PCOM approval to EXCOM.
- EXCOM: EXCOM endorsed the three tiered planning structure proposed by PCOM; the concept of separating long-term science planning from short-term operations by the formation of a SCICOM and OPCOM.; endorsed the concept of two review panels; and the concept of having scicom establish WGs (PPGS).
- EXCOM also asked PCOM to address several specific questions. A subcommittee of EXCOM and PCOM met along with representatives of JOI and the JOIDES Office and revised the plan. The revised plan will be a major topic for discussion by PCOM at the August meeting.
- EXCOM also endorsed the ODP Publications strategy. JOI and TAMU will co-ordinate efforts to establish a JOI steering committee to put the policy into effect.
- EXCOM endorsed changes to the JOI Policy manual regarding conflict of interest.
- NSF has instructed JOI to produce a five year science plan. PCOM will be tasked with this at the August meeting. The JOIDES Office will provide a draft of the PCOM Science Plan by September 15.

3. SITE SURVEY IMPLICATIONS OF RECENTLY DRILLED LEGS

3.1 Leg 166: Bahamas (Sibuet/Malone)

According to one of the co-chiefs, Gregor Eberli, the Data Bank package for 166 was not used heavily on 166 primarily because most of the data submitted to the data bank subsequently underwent more elaborate processing by the proponents before the cruise.

Sites BT-1/F-1 (Site 1005; originally at a water depth of 290 m) and F-4 (Site 1009; originally at a water depth of 245 m) were moved locating them in water depths greater than 305 m (1000 ft) to satisfy Sedco-Forex concerns about completing these sites safely. Site 1006 (BT-5) was also added supplanting BT-4 as the most distal site in the transect because its position in the center of the sediment drift afforded a better chance of achieving the objectives identified for the most distal transect site. The site survey data for Leg 166 were more than adequate for these purposes.

3.2 Leg 167: California Margin (Flood/Malone)

According to Mitch Lyle, US co-chief, the data bank package contained all materials requested and was more than adequate and useful. No sites were relocated during the leg. According to Mitch a great deal of the credit for success of this Leg goes to TAMU who were instrumental in preparing the hazard package for this Leg.

4. SITE SURVEY STATUS OF UPCOMING SCHEDULED LEGS

4.1 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.

The proponents have submitted new heat flow data collected on the recent Ewing cruise. All required data are in the DB, but some of the promised and recommended data has not yet arrived. Previously planned submissions of Ewing 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. The SSP reviewed preliminary dive maps that were sent back to the proponents. The revised copies of dive maps have not been submitted. Improvement of the previously-submitted dive maps which could prove helpful in site location of sites were 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. During the meeting we received notice from Jay Miller at ODP-TAMU that the ALVIN dive maps would not arrive to the DB prior to the cruise and would not be completed for the cruise. Miller argues that they are not absolutely necessary from an operational point of view. SSP does not consider these arguments compelling as the dive maps provide a reference frame for existing holes as well as holes proximal and within the hydrothermal mounds and could in fact save valuable drill ship time. They were requested more than a year ago and promised to SSP. In the proposal (p 5), the proponents state that the location of Holes ET1-5 are "based on mapping from submersible dives that were transponder navigated." The sites are positioned based on mapped surface features. SSP does not regard maps that were important in site location as unimportant to the data package. SSP strongly encourages the proponents to have the detailed dive maps ready prior to the cruise and on board the JR at the time it sails. A message from the proponents indicates that the navigation differences between older SeaBeam and newer hydrosweep data are being corrected to the more accurate P-code GPS navigated bathymetry and will be submitted in digital form. The corrected bathymetric maps arrived during the SSP meeting. The proponents are thanked for their efforts with regard to bathymetric updates, but are encouraged to have the remainder of the package assembled by cruise time.

SSP Consensus # 1: All the required and most of the recommended data are provided for Leg 169. The proponents have promised to supply certain additional data such as geologic and dive maps of the vent fields 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. A corrected bathymetry map has been provided. The final dive and geologic maps and any additional data should be submitted to the DB prior to the Leg. Copies of the promised dive maps have not been submitted since requested at several previous SSP meetings. SSP regards these maps to be important for site location. Any update made to Site locations should be transmitted to the DB. As the Leg is scheduled for August, 1996, these data should be deposited as soon as possible or added to the shipboard data package. The data package should be completed prior to the ship's departure.

4.2 Leg 172: NW Atlantic Drifts: Neogene Paleoceanography (404-Rev2)
SSP watchdog: Lykke-Andersen/Quoidbach
SSP Proponents: Flood
Target Type: all sites type A: paleoceanography

SSP appreciate the efforts made by the proponents to complete the dataset in the data bank, and to meet the recommendations expressed by SSP at its previous meeting. With the suggested relocations of some of the sites it is found that all sites are now located on seismic lines that image the subsurface to at least TD's. It is appreciated that the proponents also have made an attempt to move sites as to avoid features that could cause problems for the stratigraphic interpretation of the cores.

SSP Consensus # 2 : The data packages for Leg 172 is now declared ready.

4.7 Leg 173: Iberia II, Ocean-Continent Transition (461-Rev3)
SSP Watchdog: Enachescu/Quoidbach

SSP Proponent: Sibuet was a participant on a recent site survey cruise.
Target Type(s): B (Passive margin)

SSP acknowledges the large amount of data that exist for this leg. It was ranked 1B for site readiness at the Edinburgh meeting. All sites are strongly documented.

Several new items were received in the DB since our last spring meeting, including colour coded regional and detail scale plots of all recent MCS tracks, list of sites with geographic and CDP locations.

Based of recently collected and processed reflection data, a new site was proposed (08B). A portion of migrated line just over the IBERIA 08B site has entered the Data Bank and was inspected by the SSP from the point of view of safety hazards and to test if relocation achieves proposed scientific objectives. Site IBERIA 08B seems to be well placed but the panel would like to see a full migrated section of line CAM 144 at their next meeting in Nov.

Intersecting stack lines were received, albeit in the page size format, and they were inspected during past meetings. All the lines required for completeness of the intersecting grid are in the process of being migrated and will be sent to the DB. It is understood from the correspondence received at DB that this will be done prior to Nov 1 deadline. A redrawn basement map with site locations, based on interpretation of the migrated lines must be included in the package. This map should also be sent to the PPSP. For now, the proposal is still ranked 1B, and we stress the November 1st deadline for the submission to the DB of final migrated complete lines, displayed at adequate scale.

SSP Consensus # 3 : All sites for Leg 173 are well documented from Site Survey readiness point of view. A complete set of migrated MCS lines, intersecting the approved sites and a recontoured basement map, constructed from interpreted migrated sections, must be submitted prior to the November meeting.

4.8 Leg 174A; New Jersey Shelf II (348)
SSP Watchdog: Flood/Quoidbach
SSP Proponent: PCOM liaison Mountain
Target Type(s): All sites A (paleoenviornment)

Required side-scan sonar data was collected at shelf sites in Spring, 1996. A small-scale bathymetric map resulting from that survey was submitted to the Data Bank. All hazards data for shallow water sites has now been collected. The present drilling plan includes the primary shelf sites (MAT-7B, MAT-8B and MAT-9B) and alternate slope sites (MAT-13A and MAT-13B). Site MAT-13A is identical to Site MAT-13, approved by PPSP for Leg 150 drilling. The remaining four sites (MAT-7B, MAT-8B, MAT-9B and MAT-13B) need to be approved by PPSP. A letter from Jamie Austin, designated Co-Chief for Leg 174A, notes that additional alternate slope sites will be designated in an early September meeting. Supporting data for any new sites and large-scale sonar maps of the shelf needs to be provided to the Data Bank by the November 1 deadline.

SSP Consensus # 4: Side-scan sonar data for shelf sites and data and locations for any newly proposed or relocated sites for Leg 174A (New Jersey Shelf II) need to be submitted to the Data Bank by the November 1 deadline.

4.10 Leg 175: Benguela Current (354add3, 354add4)
SSP Watchdog: Paull/Quoidbach
SSP Proponent: none
Target Type(s): A (Paleoenvironment)

Since the last meeting, new navigation plots that indicate the line positions in terms of shot point numbers (consistent with the annotation on the seismic profiles) were provided. The new plots are of excellent quality.

SSP consensus # 5: As requested, navigation maps that indicate the positions of the seismic reflection profiles with respect to shot point numbers for Leg 175 (Benguela Current) were provided. Thus, the site survey data for ODP Leg 175 is complete and ready for drilling.

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.

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 2km 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:
   - offset HRGB in present 200 m survey box.
   - bare rock spud -in at 400 m intervals on flow line.
   - 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".

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 proponents have not submitted new data to the DB since the March, 1996 meeting. One of the proponents has responded by e-mail on 7/24/96 that he is now trying to obtain the video tapes from ODP prior to the scheduled leg.

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 the proposal to deepen 735B as 1A. The second Leg for offset drilling proposed remains as 2C until additional site survey data is collected.

SSP Consensus # 6: 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 any 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 November, 1996 SSP Meeting. Offset sites proposed for the second Leg were not considered by SSP because the proposal is not ranked.

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, an addendum based on the newly collected data was submitted on July 1, 1996 and data were deposited in the DB at the same time. MCS and OBS data were collected during a M. Ewing cruise carried out in southern Taiwan during summer 1995. In addition, a l'Atalante cruise was conducted by French in June 1996 in the northern area of this proposal near sites TC-2, TC-6 and TC-7. A complete swath bathymetric map is thus available in this area and will complement preceding data. In addition, 6-channel seismic profiles, gravity, magnetic and 3.5 kHz data were also collected.

Six channel seismic profiles (Moana Wava. 1990) as well as 133-channel MCS profiles (M. Ewing, 1995)

concerning the 7 sites have been deposited in the DB. However, processing of the Ewing profiles could be certainly improved. The side-scan data as well as deduced swath bathymetry data have been deposited in the DB as maps at a scale of 1/400 000.

No Cross line at the sites are provided. However, as 6-channel profiles of the Moana Wave cruise have been collected with a 5 miles spacing, at least 1 profile on each side of the lines on which sites are selected must be deposited in the data bank. In particular, 6-channel profiles 17, 19, 29, 32, 43, 68, 69 and 74 must be sent to the DB. Seismic velocity determinations of the Ewing MCS lines in the area of the sites are also requested as well as refraction data if available in the areas of proposed sites. 3.5 kHz profiles across proposed sites must also be sent to the DB. Already compiled magnetic and gravity maps of the area would be desirable in the DB.

The proposal is rated 1B which means that some required data items are still missing and should be deposited with the DB before Nov. 1 deadline in order this proposal to be declared ready for drilling.

SSP Consensus # 7: An addendum for proposal 450 (Taiwan Arc-Continent Collision) based on newly collected data was supplied on July 1, 1996 and data were deposited in the DB at the same time. MCS and OBS data collected during a M. Ewing cruise carried out in southern Taiwan during summer 1995 were supplied. In addition, a l'Atalante cruise was conducted in June 1996 in the northern area of this proposal where sites TC-2, TC-6 and TC-7 are proposed. In the absence of cross lines at the sites, adjacent 6 channel lines to the proposed sites from the Moana Wave cruise, collected at a spacing of 5 miles, must be deposited in the data bank. Seismic velocity determinations of the Ewing MCS lines in the area of the sites are also requested as well as refraction data if available in the areas of proposed sites and 3.5 kHz profiles across proposed sites. As some data is still missing from the data bank but believed to exist the proposal is rated 1B.

5.2 West Woodlark Basin (447-rev)
SSP Watchdog: Enachescu
SSP Proponent: none
Target Type(s): B (passive margin)

The ODP proposal 447-rev3 was reviewed during the July 1996 SSP meeting at Lamont. The revised proposal is a re-write of earlier versions modified to accommodate the presence of sedimentary rocks dredged from the Moresby Seamount and some of the remarks of other panels. All required data including that collected during the last winter cruise was processed and is deposited now in the Data Bank.

SSP acknowledges that a comprehensive set of data now exists in the DB that fulfils all the SSP requirements.

The four proposed sites, 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) are judged as passive margin targets (including, the site 3C after sampling ponded sediments on the top of the mound). All four locations are feasible and strongly documented in the revision. A dense grid of intersecting migrated MCS exists in the DB, at different display scales and processing variants. I suggest that improved quality of the migrated lines crossing the locations can be further obtained by careful velocity selection, multiple suppression and testing of migration algorithms.

All locations are now validated by SSP. We reiterate that some sub-unconformity trapping of sediments exists at ACE-1C and 7A locations; however, no hazard problems were detected on the migrated reflection lines. We will recommend that PPSP preview the sites on the intersecting migrated grid to test for gas anomalies or potential closures.

Site Survey Readiness Classification: 1A.

SSP Consensus # 8: SSP acknowledges that a complete data package supporting drilling in the West Woodlark Basin (447-rev3) now exists in the Data Bank and recommends that the proposal is advanced in the ODP rankings. The reviewed proposal contains four feasible, well documented sites. Site Survey Readiness Classification: 1A.

5.3 Western Pacific Seismic Network: 431 (NEW)
SSP Watchdog: Toomey
SSP Proponent: None

Target Type: E open ocean crust with > 400 sediment

SSP briefly discussed proposal 431 during the July meeting. No data are as yet in the Data Bank in support of this proposal. Previous discussion of each of the 4 sites determined 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.

SSP Consensus # 9 : 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 (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).

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

SSP Watchdog: Permanent: Tokuyama; Acting: Kinoshita

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

Target Type: D (open ocean with sediments > 400 m)

During the previous meetings, the following problems were pointed out:

1) No bathymetry data submitted,

2) No SCS data submitted,

3) Data already published elsewhere, but not presented here,

4) SCS may be enough if it is good enough quality (???).

As a result this proposal was ranked "7" at the last meeting.

The proposal was classified earlier under target type C as it deals with the region located in the vicinity of an active trench. However, on due consideration of the locations of the sites which are mostly located over undeformed thin sediments between basement highs, the panel decided to classify it under target type D : "Open ocean crust with > 400 m sediment". As a result the target type of this proposal loosen the strictness of data preparation under category C with the exception of swath bathymetry which the panel still recommends .

Since the objective of this proposal is to obtain a continuous sequence of sedimentary section and take as many basement samples as possible, it is vital to know beforehand the thickness and condition of sediment layer as accurately as possible.

During this meeting we looked at the data submitted to ODP Data Bank. We found that SCS profiles are not yet satisfactory in their quality. Furthermore, there is no information on seismic velocity structure and availability of MCS profiles. The sidescan imagery, swath bathymetry, gravity and magnetics data are presented in digital format. However, there is no paper copy of the bathymetry which includes navigation tracks and site locations, on a big enough scale to recognize topographic characteristics at each site as well as general features in the whole area. The sidescan imagery, presented on a page size image are most unsatisfactory and can not be used for site selection or evaluation purpose. Besides it includes only sites 3A and 5A. The 3.5 kHz profiles are presented but the quality is too poor . The proponents should bear in mind that the site data is required at the Data Bank not merely to satisfy the requirement that it exist but also for the panel to examine its quality. This can not be achieved from an excessively reduced copy. Furthermore, if the proposal progresses enough the same data is supplied as part of a ship board package for use on board ship. It is for this reason that large good copies of the data are required at the data bank.

Thus, it is recommend for the proponents to present the following materials and deposit them with the Data Bank before November 1 deadline for further consideration.

1) A "big paper copy" of bathymetry map with necessary navigation tracks and accurate site locations plotted on it.

2) Good quality paper copy of SCS profiles, probably reprocessed showing clearly the sediment layers and the underlying basement.

3) MCS data at sites where SCS data fail to show the basement sediment interface clearly and where the thickness of sediments is greater than 400 m.

4) As good as possible seismic velocity data. This data is vital to estimate the depth to the basement unless MCS data is provided.

5) Detailed bathymetry and/or sidescan imagery data for sites 1A, 2B and 4A. Although we understand the difficulty of obtaining swath data from US Navy, as noted from past correspondence (page 3, Jan 5, 1995), we still encourage proponents to increase their efforts in obtaining data from US Navy.
6) Also, more heat flow measurements if possible.
7) Shipboard gravity data (in a gridded digital format) obtained by GSJ and its paper map.
8) Geomagnetic anomaly map (big paper copy).

The following are the comments originating from detailed examination of the data carried out at this meeting.

SCS data

The SCS data presented to ODP Data Bank are poor paper copies from which it is difficult to judge the basement sediment interface. These paper copies are same as those presented in the proposal whose quality is better. Thus, we would urge proponents to submit better-quality (enlarged, as close as to original) copies of all SCS data.

3.5 kHz data

Similar comments apply to 3.5 kHz data . Proponents should submit a better-quality copy to ODP Data Bank.

Gravity and Magnetics

The gravity and magnetics data are presented and well documented in a reference (Data Bank #7440). Also, data are presented in a digital format (GMT *.grd or *.gmt). However, the gridded digital gravity data (in *.grd form) is derived from satellite gravity data by Sandwell and Smith. and not the ship borne data.

Swath Bathymetry data

The result of swath mapping, as a composite plot of SeaMARC-II, 12kHz survey by GSJ and ETOPO5, is presented from a reference paper (#7440). The combined bathymetry data is also presented in a digital format (GMT *.grd). However, there is no paper copy of the bathymetry which includes navigation tracks and site locations, which is big enough to recognize topographic characteristics at each site as well as general features in the whole area.

Sea MARC-II sidescan image

A paper copy of sidescan image, from a reference paper (#7439) and the digital data (in *ps and *ras format) are presented to ODP DATA Bank. The reference paper describes the bathymetry and geologic interpretation in detail. However, the data covers only for proposed sites 3A and 5A.

MCS data

According to the letter from Robert J. Stein received at ODP Data Bank (L-DEO) on July 15, proponents do not have any firm plans as to MCS survey, although they are still hoping for it. Because acquisition of MCS data and determination of seismic velocity is necessary at some sites, efforts be made in acquiring this data.

Seismic Velocity data

Seismic velocity data is required for this type of target where the sediment thickness exceeds 400 m. We already mentioned this in the previous correspondences; we again urge the proponents to present velocity data which is as good as possible, even if you do not plan to collect any MCS data.

Heat Flow

Additional heat flow measurements is preferable, if possible, for estimation of hydrothermal activities around the proposed sites.

Sediment Cores

Description of surface core is presented in Appendix 1 of the proposal.

Classification

In view of the lack of data required by this proposal which still lacks in the Data Bank and the uncertainty of obtaining MCS or SCS data at some of the sites the proposal is ranked as 5, "Impossible for FY98: 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", However, if the SCS data is properly reprocessed showing the sediment structure and underlying basement clearly and the seismic velocity data is provided, this proposal would be ranked higher.

SSP Consensus # 10: We appreciate the efforts made by the proponents of proposal 442 (Northern Mariana Back Arc Basin) for supplying some of the required data to the Data Bank. However, because of the poor quality of the data supplied the sites could not be evaluated properly. In addition some of the required data is still lacking and no definite plans exist for collection of this data. It is recommended that serious efforts be made by the proponents in acquiring the required data and depositing good quality existing data to the Data Bank prior to November 1 deadline if they wish this proposal to be considered for drilling in 1998/1999.

6. POTENTIAL FUTURE DRILLING: SGPP

6.1 Red Sea Deeps (481)
SSP Watchdog: Scrutton
SSP Proponents: None
Target types: B (passive margin), E (open ocean crust) and A (paleoenvironment)

Since our March meeting an Addendum to the Red Sea proposal has been received. Some revised site locations are given within the framework of the existing three main objectives, creating a more focused and still exciting proposal.

Two of the revised sites have new Site Summary forms attached to the Addendum. However, there is confusion over the lats and longs given for some of the sites in the proposal and their positioning on maps within the proposal. The proponents should thoroughly check over all the site locations and revise Site Summary forms accordingly. All site locations should be accurately plotted on any seismic sections and maps submitted to the Data Bank.

Some data has been submitted to the Data Bank. Seismic profiles from the western central Red Sea are relevant to the Magmatic-Tectonic transect, but do not illustrate specific sites. A large copy of Red Sea Commission seismic profile 19 with sites RS1A, RS2 and RS3A located on it has been submitted, but it is of poor quality. There is still some data in the DB in support of the metalliferous deeps sites, but it needs to be organised into a self consistent and well annotated set of data. A lot of other potentially useful site survey data is thought to exist for all sites, for example, Red Sea Commission data, which could be assembled into site survey packages relevant to the target types of the different sites.

Good news is that a site survey cruise by the SONNE is proposed for summer 1997 to visit all proposed sites. It is not clear if the cruise is in fact scheduled, but the opportunity should be taken for this cruise to act as a catalyst for the assembly of organised site survey data packages. In view of this cruise now likely to take place and to yield better quality data than is now available, and the fact that several sites have been relocated since SSP's last meeting, this proposal is now classified as 2C, rather than the 2A given previously

SSP Consensus # 11: At present the site survey data for the Red Sea (481) are disorganised, although there has been some data submission since the March 96 SSP meeting. The proponents should use the likely upcoming site survey cruise as a catalyst for the assembly of well organised and documented site survey packages for all their proposed sites. The need for alternate sites should be born in mind. The proposal is ranked as 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).

6.2 Deformation and Fluid Flow, Nankai Trough Accre. Prism (445 Rev)
SSP Watchdog: Paull
SSP Proponents: Tokuyama
Target Types : C: Active margin

Since the last meeting some new data has been supplied to the Site Survey Data Bank. The new line copies of the Fred Moore seismic data are of the highest quality and clearly identify the proposed sites. Inclusion of the shot points numbers on the newly provided navigation for the Fred Moore data did help in establishing how this data relates to the proposed sites. Moreover, combination of the reprint by Stoffa et al. (JGR) and the depth converted profiles along the two major drilling transects address the velocity (depth) issue.

Unfortunately, it remains a difficult data set to review because: some of the relevant data was accumulated for ODP leg 131 (and thus is not annotated with respect to the new sites), the line numbers on some of the older profiles appear to have been changed, and there is no common navigation which allows all the relevant data to be directly compared. While the volume of data that is currently in the data bank document that the general region is data rich, the available site specific data is rather limited and perhaps marginal to support the detailed objectives of this proposal. If the data in fact exist a substantial amount of data still needs to be provided in a useful form.

A master track line navigation map which shows the position of the proposed sites and all of the relevant seismic reflection data is essential. The data bank has a digital file of the Fred Moore data. If digital navigation files of the other lines are provided, the data bank can make the plots.

The most serious apparent deficiency is the lack of clearly identified crossing seismic profiles at the proposed sites. A data table that indicates specific crossing lines and the shot point numbers at (or closest to the sites) the proposed sites should be included. I was able to locate the following potential cross lines for the Nankai Trough proposal, but am not confident of these identifications:

ENT-01A	KK 83-12 is nearby
ENT-02A	NT 62-4 is nearby
ENT-03A	NT 62-4 is nearby
	KH-86-5-6-3 is nearby
WNT-01A	KT 84-15-1 is nearby
WNT-02A	N 55-A-1 is nearby
WNT-03B	no cross was identified.

The panel took a long look at the ENT-03A site where there does not appear to be a crossing line directly at the proposed site. However, because the site is specifically targeted to penetrate the most seaward proto thrust zone fault, it cannot be moved to NT62-4. Thus, the panel is prepared to relax the crossing line requirement at this Site. However, at the other sites we require that they be located at a crossing line or that a strong argument be made as to why they cannot be moved. Moreover, the copies of other seismic data that could be used as crossing lines are very small, and thus appear to be of low quality. Good copies of the cross lines need to be provided which are well annotated and at a useful scale.

No 3.5 Khz data has been provided which is a required data type. Thus, 3.5 kHz data either need to be provided, acquired prior to the cruise, or during the leg.

The stated position of site WNT-01A differs subtly from the position that is plotted on your new navigation.

Since strong currents exist in the area which may influence drilling operations, reprints about the current structure should be provided.

SSP Consensus # 12: Some new data was provided for Nankai Trough (445-Add 2) proposal, but the data package remains incomplete. While the volume of data that is currently in the data bank document that the general region is data rich, the available site specific data are rather limited. The following data types need to be provided: 1). A master navigation plots that show all the relevant seismic lines plotted at a useful operating scale with respect to the current sites is required. 2) Crossing seismic lines for each of these sites are needed. The crossing lines at most sites could not be confidently identified. Either crossing lines need to be produced, the sites need to be moved to existing cross lines, or some argument be made as to why this is unnecessary. 3) No 3.5 kHz data has been deposited. The proposal is rated 2A because 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 provided the proponents would take trouble to assemble them and send to the data bank (Nov. 1) in time for consideration at the next SSP meeting.

6.3 Great Australian Bight (367- rev3)
SSP Watchdog: Enachescu
SSP Proponent: none
Target Type(s): B (Passive margin)

SSP acknowledges that a large amount of data exist for this proposal which is highly ranked by OHP and SGPP and was ranked 2B for site readiness at the Edinburgh meeting. During this spring, two successful cruises have collected an impressive volume of geophysical and geological data for site characterization.

The 367-add3 package recently received at DB contains regional and local ship's track maps across the sites, contoured bathymetry map, gravity and magnetics maps and preliminary brute stacks of lines intersecting the proposed sites, description of acquisition parameters and processing sequence. It also contains new sites summary forms with drilling time estimates (48.5 to 59.5 days and 8370 m total penetration). The shallow sites that in the past have created drilling safety concerns have been removed from the present proposal and several insignificant (4-15 m) site relocations required by the navigation grid were listed. The new submission (add-3) has the core logs and grab sample descriptions from the proposed sites area.

The proponents admit that the following data remain to be submitted:
- final brute stacks and migrated lines for each sites;
-contoured horizon maps;
-revised velocity calculations and projection of site holes in depth on migrated lines.
It is also understood by the proponents that some sites may be relocated at the request of OHP and therefore documentation must be sent for this sites. It is reminded that relocations of sites must conform with the ODP renumbering policy that requires a letter to be added to the new site in the order A or B or C etc.

Commercial lines and brute stacks of the new data with site locations have been reviewed in the past and found to be free of hazards. All other lines required for completeness are in the process of being migrated and it is understood that this will be done prior to our fall meeting. For now, the proposal is ranked 2A and the SSP stresses the September deadline for a preview of migrated lines across the eight sites with the PPSP. We remind the proponents the November 1st deadline for the submission of final, adequate scale, migrated lines to the DB together with horizon maps and velocity information, and plots of holes on sections in order for SSP to rank it for consideration for 98 drilling schedule.

The proponents and especially Dr. Feary have conducted exemplary work on this proposal that up to now was perfectly managed and documented from both scientific objectives and Site Survey point of views. The proponents were also extremely responsive of this panel concerns and observations. We expect that the remaining work will be completed in time and fast expedition of the information to PPSP and DB will follow. This will allow SSP to advance the proposal in ranking at the next meetings.

SSP Consensus # 13: A complete set of migrated MCS lines, intersecting the approved sites has been collected and brute stacks are in the DB for proposal 367 (Great Australian Bight). Migrated lines, horizon maps constructed by interpreting migrated sections and velocity information with plots of site holes on the new sections, must be submitted prior to the November meeting. Site survey readiness: 2A.

6.4 Hudson Apron (476)
SSP Watchdog: Roger Flood
SSP Proponent: none
Target type(s): All sites A (paleoenvironment)

This addendum presents a revised, somewhat reduced drilling and logging proposal for the Hudson Apron. These sites are located on a seismic line presently in the Data Bank, although a 3-d interpretation of the sediment failure based on available lease-sale and other seismic data has not been provided. The proposal includes one cored site (plus MAT-13B, an alternate site for Leg 174A) and three uncored sites where logging data is collected during drilling. It is important for safety purposes that real-time logging, provided by MWD (measurement while drilling), be utilized if uncored sites are not located at cored sites. (LWD (logging while drilling) only provides the logging data after drilling is completed.) The regional data needed for a 3-d interpretation of failure morphology appears to exist, but has not been submitted to the Data Bank or incorporated in the proposal. The proposal remains rated 2A.

SSP Consensus # 14: Measurement while drilling (MWD) is required for this project (476, HAT) if uncored holes are not at the sites of cored holes. Also, a three-dimensional interpretation of available data is needed to support the placement of logged and cored sites. The proposal remains rated 2A.

7. POTENTIAL FUTURE DRILLING: OHP

7.1 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),(added July 96 B, G)

This addendum provides a drilling plan based on new SCS and core data collected in February, 1996. Large-scale, processed SCS profiles, 3.5 kHz profiles and hydrosweep data were submitted to the Data Bank, and the proposal summarizes Polarstern meteorological data from the area and piston core logs. Seismic velocity data, from MCS lines, was provided for three sites, but the depth to be sampled is not indicated on seismic profiles. The continued compilation and use of both site-specific and regional sediment velocity information (from earlier sites and sonobuoys as well as from MCS) is strongly encouraged although it is recognized that the proposed drill depths are based on sedimentation rates rather than on seismic horizons. However, time-depth information will be needed for detailed planning purposes because the seismic profiles do show prominent seismic horizons apparently related to paleocirculation events, and in at least one case the proposed total depth appears to go into basement.

Position data for TSO-2A has been changed and thus it is renamed TSO-2B. Sufficient data is available in the Data Bank for all seven primary sites (TSO-2B, TSO-4A, TSO-5B, TSO-6A, TSO-7A, SubSAT-1B and SubSAT-3B, although no new SCS data was collected at TSO-4A), for both alternate sites in case of ice (TSO-6B and TSO-7B), and for two secondary sites (TSO-3B and SubSAT-4B). A third secondary site (TSO-1A) is located at the site of DSDP Site 360. No new additional data has been collected at this site, and the Data Bank holds no data for DSDP Leg 40. The appropriate seismic data for this site will need to be deposited in the Data Bank.

Additional comments on specific sites based on analysis of the site-survey data and drilling plan: Total depth of penetration needs to be shown on all profiles. TSO-3B: A potential basement rise may be present at about 700 m subbottom depth while total proposed depth is 800 m. SubSAT-1B: The hole ends just above a topographic feature that creates a local hiatus. The site needs to move a bit if deeper penetration is desired. TSO-4A: The map is in shot point while the profile is labelled in CDP point; however, the site position on the map and on the profile are consistent. At primary sites TSO-2B and TSO-4A and at secondary site TSO-1A only one APC hole is proposed. Also, APC penetration is planned for 200 m (300 m at SubSAT-1B) although the deepest APC at Site 704 was about 150 m.

The proponents report that a German seismic survey cruise is planned for February-March, 1997, to further augment the seismic site survey data, especially MCS. While the additional survey data is welcomed, sites can be drilled on the basis of data now in the data bank. This proposal is rated 1B because some essential information has not yet been received for TSO-1A. We also want additional analysis of seismic velocity data.

> **SSP Consensus # 15: Site survey data for proposal 464 (Southern ocean paleoceanography) is complete and in the Data Bank except for secondary site TSO-1A and synthesis of site-specific and regional velocity information. TSO-2A is renamed TSO-2B in line with JOIDES Office guidelines. The proposal is rated 1B, and we anticipate the final requested items to be submitted by the November 1 deadline.**

7.2 SW Pacific Gateway: Paleoceanography (441-Rev)

SSP Watchdog: Peterson
SSP Proponents: None
Target Type(s): all Sites A (Paleoenvironment)

This proposal calls for the drilling of 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 system that feeds deep water into the SW Pacific Ocean. 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 of 39° to 51°S.

Since our last meeting in Edinburgh, new site survey data have been submitted to the Data Bank in support of three more sites. There are now data on file in support of all but one of the nine sites, though the data quality is very uneven and a number of vital data types (e.g., 3.5 kHz, core descriptions) are missing for many of the sites. In addition, we found numerous problems with matching navigation data to seismic lines and site locations, and with profiles that are poorly labelled

and/or missing vertical and horizontal scales. Some of the data deficiencies are likely to be remedied with an 18 day survey of sites SWPAC-1A and SWPAC-6A thru -8A scheduled aboard the R/V *Tangaroa* in February 1997. Nevertheless, proponents need to take action to clear up questions on data already submitted, and to complete their submission of vital data types in support of sites not scheduled for re-survey.

A site-by-site assessment of data problems follows:

SWPAC-1A: This site lies close to an industry MCS line at ~shotpoint 100. Water depth is 310 m, a level very close to the 1000 ft limit above which ODP will now not drill. This site is scheduled to be re-surveyed by the *Tangaroa*. We suggest that the water depth be increased slightly to avoid problems with the 1000 ft rule.

SWPAC-2A: The Mobil 72 line on which this site is located is of good quality, but the site location is not where the navigation data indicate it to be. Latitude/longitude coordinates indicate a position on the navigation line at ~00:00 on 31 January, but comparison with the profile in the proposal shows the site to be at ~16:00 on 30 January. The difference in times do not suggest a simple discrepancy between local time and GMT. 3.5 kHz data are thought to exist, but are not in the Data Bank.

SWPAC-3A: This site appears to lack 3.5 kHz and core data. There are two navigation maps in the Data Bank files, which differ by exactly 12 hours.

SWPAC-3B: This alternate site sits on a good quality Mobil MCS line, but the position of the site is not marked and cannot be identified with available information. 3.5 kHz and core data are not in the Data Bank.

SWPAC-4A: The 3.5 kHz record suggests that the site falls at ~00:05 on 26 October, while the navigation map show the location at ~12:00. SCS data are of adequate quality, but there are no core data.

SWPAC-5A: There is an SCS profile in the Data Bank (D.B.#5810) which we assume to be NZOI CR2050. However, it is not labelled as to ship/cruise, there is no vertical scale, and no date is indicated on the line. The time marks again don't match the navigation data. The site location actually falls off this line and is apparently closer to line EH-9003. No data from the latter are on file in the Data Bank, though a cruise report is available.

SWPAC-6A: Eltanin-52 data on file are of poor quality. The site location is indicated on the track chart at ~20:00, 22 March, but on the SCS profile (as matched to the proposal), the site location appears to fall closer to midnight on 23 March. Water depth on the profile appears to be considerably shallower (~600 m) than listed (960 m), and the latitude/longitude are inconsistent with the track chart and the SCS profile.

SWPAC-7A: This site is situated on a very poor quality Eltanin profile. There are no 3.5 kHz data on file and core data are lacking.

SWPAC-8A: There are no data in support of this site in the Data Bank. Site summary forms and correspondence indicate that seismic profiles exist and appear to have been submitted in the original data submission. These may have been lost in the mail with the original navigation data when that first data package arrived at the Data Bank damaged and opened. Recent messages between the Data Bank and chief proponent address this concern.

SWPAC-9A: The proposal figure showing the site location seems to be from E-W line NC8802. However, the site is actually offset to the north on SCS line CR2050D. Times on this profile and the accompanying navigation map don't match.

The site survey readiness level for this program remains as 2B, pending success of the scheduled survey cruise aboard the *Tangaroa*. However, there are still vital data types missing from sites not planned for additional survey, and numerous inconsistencies in data already filed. We urge proponents to review existing data and submit accurate information on site locations for those profiles already in the Data Bank (e.g., exact time or shotpoint as shown on the profiles themselves). We also remind proponents of SSP's request for velocity data for sites with proposed penetration in excess of 400m. Proponents are encouraged to design their upcoming *Tangaroa* survey to maximize the site coverage and information gained with time available. We wish the proponents luck in conducting their survey and in assembling and refining their overall data set.

Site survey readiness status: 2B

SSP Consensus # 16: New data in support of three of nine SWPAC sites of proposal 441 (SW Pacific gateway paleoceanography) have been received since our last SSP meeting, and plans continue for an early 1997 survey cruise which will conduct additional surveys at four sites. The proposal, therefore, is ranked 2B. However, significant items are still missing from the Data Bank and numerous inconsistencies exist within data already submitted. We urge proponents to clarify questions regarding existing data and to continue to submit missing vital data items as soon as possible. SSP looks forward to seeing results from the spring survey cruise and wishes the proponents luck in completing their site survey data package.

7.3 SE Pacific Paleoceanography (465)

SSP Watchdog: Peterson
SSP Proponents: None
Target Type(s): all Sites A (Paleoenvironment)

This proposal calls for recovery of Neogene and older sediments in a series of latitudinal and depth transects from the relatively unexplored SE Pacific region. The most recent addendum (465-ADD) is highly ranked by OHP and targets top thematic objectives related to mid-depth and deep water circulation, the history of a major eastern boundary current system, paleoproductivity, and tectonic-climate connections. A total of 15 sites are proposed and scenarios for both a one- and two-leg program are presented.

A large and extremely well packaged data set arrived at the Data Bank for the July 1 deadline. Proponents have done an admirable job of pulling together available survey data in support of each of the proposed sites. Although much of the data are old and of variable quality, the data appear sufficient to demonstrate that all proposed sites represent viable drilling targets and to allay SSP's previous concerns about availability of sediment cover at some of the more southern sites. An NSF-funded site survey cruise currently scheduled for early 1997 will conduct additional surveys at each of the 15 sites, and we anticipate that final site locations will naturally shift somewhat as a result of survey findings. We urge the proponents to ensure that, at a minimum, data types considered vital for target type A objectives are collected (i.e., high-resolution seismic, 3.5 kHz, sediment cores). Reported survey plans call for additional swath mapping that will help to characterize local topography. We encourage the collection of crossing lines at or near all proposed sites. For sites where sediment penetration is planned to exceed 400 m, SSP asks the proponents to include velocity data or estimates with the seismic profiles that are eventually submitted.

Site survey readiness status continues to be considered as "2B". Pending successful completion of the upcoming survey cruise and submission of final data, we anticipate this program to be a strong candidate for eventual drilling.

Site survey readiness status: 2B

SSP Consensus # 17: A large and comprehensive compilation of existing regional survey data has been submitted to the Data Bank by proponents of the SE Pacific Paleoceanography program (465). Though much of the data is old and of variable quantity, the data set clearly demonstrate the potential at all proposed sites for recovery of good sediment sections. An NSF-funded survey cruise currently scheduled for early 1997 will re-survey each of the 15 proposed sites and we anticipate that site locations will be adjusted accordingly. We wish the proponents good luck in carrying out their scheduled survey cruise and look forward to seeing the final results submitted in a timely manner after the cruise.

7.4 Southern Gateway - Australia and Antarctic: 485 (NEW)
SSP Watchdog: Casey
SSP Proponents: None
Target Type(s): B (Passive margin), D (open ocean with sediments >400 m) and G (topographically elevated features)

This proposal involves drilling between Tasmania and the South Tasman Rise and Antarctica to address Cenozoic climate changes and paleo-ocean currents. The proposal was reviewed by SSP during the July meeting. Significant new data has arrived at the data bank and the proponents are thanked for the high quality of the data submitted. Based on data requirements for target types proposed, it appears that most of the required data is available for drilling. The data available includes SCS deep penetration, MCS, 3.5 kHz, swath bathymetry, hi-resolution side looking sonar, magnetics, gravity, coring, rock sampling data, but not all data is submitted at this time. Seismic reflection, bathymetry, navigation, and side scan sonar data has arrived at the DB. SCS high resolution data is available for four of the seven sites. Intersecting seismic lines are available for most of the Sites and crossing multi channel lines are available for all sites except TFZ02, ETP1 and alternate site SET1. SSP request the data not yet included in the Data Package be submitted to the DB before November 1 deadline in order this proposal to be considered for 98 drilling. The missing data includes 3.5kHz data (required), magnetic data, gravity data, coring and sampling summaries. Detailed information on the velocity and depth estimates should be provided for each site. Velocity information is critical for sites exceeding in drilling depths of 400 m into the sediments. Drilling, transit, change over times from XCB/RCB need to be rigorously evaluated.

Processed 6 channel seismic lines with navigation are also expected as promised by the proponents. The data bank has the shipboard monitor records of this data . Data pertinent to gas shows at Sites WT1 and WT2 should be submitted for Safety Panel consideration. A proposal is ranked as 2A as some critical data is still not in the Data Bank.

SSP Consensus # 18: Significant new data has arrived at the data bank for southern gateway proposal (485) and the proponents are thanked for the high quality of the data submitted. Based on data requirements for target types proposed, it appears from the proposal that most of the required data is available for drilling. The proponents are encouraged to submit all additional required and recommended data as soon as possible.

Processed 6 channel seismic lines with navigation are also expected as promised by the proponents. The data bank has the shipboard monitor records of this data . Data pertinent to gas shows at Sites WT1 and WT2 should be submitted for Safety Panel consideration. All materials should be in the data bank by the November, 1996 SSP meeting for consideration for FY 98 drilling. As some required data is still lacking from the data bank, and believed to exist, the proposal is ranked as 2A.

8. POTENTIAL FUTURE DRILLING: LITH

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

SSP Watchdog: Permanent: John Diebold; Acting: Dave Scholl/Srivastava
SSP Proponent: Dave Scholl, liaison to SSP from TECP, is a supporting investigator of 451-Add2
Target Types: C (Active margin)

The science of this proposal focuses fundamentally on crustal generative and destructive processes and effects operating at an interoceanic arc. In this example, the Tonga-Lau backarc-arc-trench system, which is presently characterized by regional extension linked to rapid trench convergence (170-180 km/my) and eastward trench rollback. Proposal 451 places specific emphasis on investigating the (1) nature, characteristics, and cause of suprasubduction zone arc magmatism and ophiolitic crustal formation above new interoceanic subduction zones, (2) subsequent crustal generation processes and changing mantle sources that nourish backarc spreading (Lau Basin) and arc magmatism (Tofua arc) in particular as speculatively thought to be instigated by the subduction of a lengthy chain of seamounts, the Louisville Ridge, beneath the Tonga Ridge, and (3) background or long-term effects and rates of subduction erosion and the accelerated effects and rates hypothesized to be tied to the subduction of the Louisville Ridge. A strategy of drilling to determine N-S geochemical variations in basement rock, vertical ash stratigraphy ,and cross-arc history of vertical tectonism, is expected to establish the nature and origin of the ridge's Eocene arc massif, to document long-term processes and effects of crustal growth and thinning and changing magmatic sources including those hypothesized to be tied to the southward propagation of backarc rifting (opening of Lau Basin, initiation of Tofua arc volcanism) in the wake of the southward progression of the Louisville-Tonga collision zone.

The current addendum-2 incorporates the results of the recently completed site-survey cruise of the R/V *Melville* , May-June, 1996. The results of the gathered information served to more accurately position the coordinates of previously selected sites, move selected sites to positions at which scientific objectives could be better achieved (e.g., TONG 10A for 05B, eliminate one site (TF7) because the objectives at which were not judged achievable and basically supplied by dredge recoveries, and locate a new site, TONG 08A).

Seven sites are proposed which, together with existing drill sites 840 and 841 (Leg 135), make up three cross-arc transects at 15°, 22° and 23°S. One new site, TONG 08A was positioned at 26^0 S in response to TECP's request for a "benchmark" site south of the collision zone of the Louisville and Tonga Ridges. This site, at 3555 m along an existing 24-fold MCS line, is positioned at the inner (western) edge of a deep-water forearc terrace. The sedimentary section to be penetrated (430 m), as indicated on the Site Summary Form, appears to be too thin by a factor of at least two (twt reflection time to basement is ~1.1 sec)--this matter should be checked by the proponents because the required drilling time appears to be much greater than estimated.

The targets in the sedimentary cover are predominantly stratigraphic, with a view to interpreting changes in magmatic sources and vertical movements of the arc basement from ridge crest to outer forearc region. Basement objectives exists at every site, and 100-200 m of sub-basement rock recovery is scheduled. The typical thickness of the sedimentary column to be drilling is 400-500 m. Sites range in water depths from 315 m to 4868 m. Crossing seismic profiles through the sites locations show the drilling targets for all sites. Many of the sites are located along 24 or 6-fold MCS data, with the exception of new site TONG 10A, which, based on crossing, single-channel seismic profiles collected by the R/V Melville cruise of May-June, 1996, is positioned about 100 km north of former TF5.

The greater part, but not all, of the site survey information thought to exist and deemed required have been submitted to the ODP DataBank. A significant amount of MCS, SCS, 3.5/12kHz profiles, multibeam swathmapping bathymetry and sidescan sonar, magnetic and gravity data now reside in the DataBank. A remaining fraction of larger-scale SCS and underway geopotential data from the Melville site survey cruise is be submitted in the immediate future. The vessel's 3.5 kHz system failed to recover usable data, thus site-crossing high-frequency subbottom profiles remain unavailable. High-resolution profiles exist, however, for many, but not all, of the sites selected along data-sets gathered on other cruises. 3.5 kHz profiles formerly required for site TF7 is now moot because this site has been abandoned.

An issue of better calculation of drilling time remains with respect to the integration of subbottom velocity information based on MCS stacking velocities. Stacking velocity data now exist in the DataBank as top-header information on compiled MCS profiles. The SSP has no information on what velocity data have been used in making the proposed drilling-time and sediment-thickness estimates. Drilling times for sites 840 and 841 may be applicable to many of the

proposed sites. Sites located along the crest of the ridge are in a setting similar to industry hydrocarbon exploration holes drilled on Tongatapu, where petroleum seeps have been observed. It is likely that PPSP may have questions concerning pollution and safety. All of the hole were reported as dry and effectively without shows. Information about these holes and organic maturation data were published in 1985.

Further detailed comments on data quality on this proposal are given in Appendix F.

Site Survey Readiness Classification: Strictly speaking most of the data collected by Melville had not arrived at the Data Bank at the time of the meeting. It is expected to arrive soon. Judging from the sample copies sent with the cruise report it appears most of the required SCS and swath bathymetry exist. The rating of this proposal therefore is closer to 1B than 2A. Hence it is ranked 1B.

SSP Consensus # 19: The greater part of the required site data for Tonga Forearc (451) now resides in the DataBank. That not included, but to be supplied soon, principally involves underway geopotential data and larger-scale reproductions of site-crossing SCS profiles gathered by the *Melville*. Swathmapping and sidescan data from the *Melville's* Seabeam 2000 system have been sent, but, as of this writing they were not observed in the DataBank. The vessel's 3.5 kHz system failed to recover usable data, thus site-crossing high-frequency subbottom profiles remain unavailable. High-resolution profiles exist, however, for many, but not all, of the sites selected along data-sets gathered on other cruises. Remain matters are linked to more accurate calculations of drilling time by integrating velocity information and checking on the accuracy of the calculated thickness and drilling time to penetrate the sedimentary section at new site 08A. With the arrival of Melville data at the Data Bank this proposal could be considered a viable candidate for 1998 drilling.

8.2 Kerguelen Plateau and Broken Ridge: age and evolution (457-rev3)
SSP Watchdog: Hinz
SSP Proponent: None
Target types: G (topographically elevated features)

In response to SSP's latest consensus the proponents submitted a fourth version of their proposal together with a large-scale track plot of all existing French, Australia, and U.S. MCS and SCS data. The proponents have made some changes in the drilling strategy for Leg A. Instead of drilling site KIP 18C, located on the Central Kerguelen Plateau in the southern Raggat Basin and recommended by LITHP for deepening on a possible later Leg B; sites KIP 6B and KIP 9A have been selected located on the Elan Bank and on the Eastern Broken Ridge, respectively. Leg A involves now - 200m basement penetration at 6 sites (KIP 2B/3A/7A/6B/9A/12A) with an estimated total drilling time of 43 days. All of the above sites are being judged as target type G and need intersecting seismic lines to control the two dimensionality of the basement structure and its sedimentary overburden.

There have been little changes in the site survey status for the latest proposed sites. The proponents anticipate further Australian and French site surveys in early 1997, and they are in close contact with AGSO and EOPG organizing these cruises not finally approved at this time.

Site Survey readiness classification : Earlier this proposal was ranked as 2B as we had the understanding of a definite cruise plan to collect additional site survey data. However, considering that the cruises are still in their planning stages it is ranked as 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 proposed site survey proceeds as planned).

SSP Consensus # 20: SSP acknowledge the efforts of the proponents of Kerguelen Plateau proposal (457) to complete the site survey data set for the proposed sites which in its present form is still not satisfactory to support a two leg drilling. The proponents should keep SSP further posted of the plans to acquire additional data at the proposed sites. The proposal is ranked as 2C (data could be available for 98 drilling pending on planned cruise).

8.3 Mass Balance: Izu-Mariana convergent margins (472)
SSP Watchdog: Scrutton
SSP Proponent: None
Target Type(s): D (Open ocean crust with sediments >400 m)

The proponents are congratulated on their energetic response to the SSP comments of March '96. A lot of important data has been submitted to the Data Bank. An Addendum to the proposal has also recently been submitted to address questions from the thematic panels and SSP, including the relationship of this proposal to proposal 505, for which there is at present no site survey consideration.

The panel considered BON8A and its alternate, BON9, as Target Type D. Their location at the top of the outer trench wall did not warrant classification as type C. For both these sites all the required data are in the Data Bank, with the exception of the 3.5kHz profile through site BON9. The possibility of these sites requiring data to meet their secondary paleoceanographic objective was not considered because OHP ranked the objectives 15th. However, SSP suggests that care is taken to collect a high resolution SCS profile over the site with the JOIDES Resolution.

Site 801C and its alternate, PIG3B, are also Target Type D. With the relevant required data from ODP Leg 129, Fred Moore 3512 and Survoit MESOPACII cruises all in the Data Bank these sites are ready for drilling. It was noted that the drilling time does not take into account sediment penetration, presumably because 801C is a reentry site.

Assuming that the 3.5 kHz profile at BON9 is submitted to the Data Bank, this proposal is classified 1A.

SSP Consensus # 21: A good data package has been assembled for Mariana Margin (472). With one small exception, the package is complete (ranked as 1A) and the proposal is ready for drilling. If any paleoceanography objectives are intended, a good quality SCS profile through the BON site must be collected by the JOIDES Resolution.

8.4 Australia-Antarctic Discordance (426)
SSP Watchdog: Toomey/Srivastava
SSP Proponent: SSP/NSF liaison Shor has been involved in site surveys for this proposal
Target type(s): E: open ocean crust <400m sediment

The intent of this proposal is to locate and characterise the boundary between seafloor basalts that were derived from the mantle of Pacific Ocean affinity and those that were derived from the distinctly different mantle of Indian Ocean affinity. The revised proposal includes 18 sites in order to cover the range of possible locations of isotopic boundaries.

A site survey cruise was carried from *R/V Melville* in February 1996. Unmigrated two channel seismic reflection, seabeam 2000, gravity and magnetic data that were collected along most of the tracks covering all sites were supplied in small page size figures during our March 96 meeting. Preliminary examination of this data suggested that adequately processed data could be available for July 96 meeting.

The proponents are commended for their unparalleled efforts in putting together a thorough, well-organized data package for SSP. Given the complexity of their drilling strategy (18 possible sites have been proposed), this was surely a monumental task. The data package was complete, easy to follow, well documented and concisely organized; for example, times and sites were marked in a uniform fashion for each type of data, and map view plots of different data types were made at the same scale, allowing an easy comparison between different types of data. It is the view of the watchdog, if not the entire panel, that the proponents spared no effort and on their part nothing more could have been done to make this data package more complete or thorough.

It is most disturbing to see, however, the poor quality of this data. No 3.5 kHZ has been supplied as it could not be collected during the cruise. Thus with poor quality seismic and no 3.5 kHZ data it is impossible to judge the thickness of sediments at all of the proposed sites. To do so would have required either 3.5 kHz or SCS data that showed structural features characteristic of a sedimentary sequence.

While SSP cannot classify site readiness for specific sites, a valid and outstanding question is whether or not the operational objectives can be achieved in the absence of required site survey data. In other words, is there enough evidence from this area to argue that the region, in general, can be successfully drilled? Taken as a whole, the available swath bathymetry, dredging samples, backscattering sonar, and SCS data suggest that sedimented areas exist within the AAD. Much of this region is not covered by bare rock.

Thus, given that the scientific objectives do not require precisely positioned samples (i.e., a sample within 10 to

20 km of each of the proposed sites would satisfy the proponents goals), it is proposed by the proponents to use the Joides Resolution to collect additional data that would suffice for locating sites that could be drilled without having to use a hard rock guide base. The panel would not object to this approach provided secondary data showed that sufficient sediments existed throughout the region. A cursory inspection of the Lamont data base showed presence of some 3.5 kHZ data from other cruises in the vicinity but this data is not in the DB. The proponents are urged to compile this information using data available from other cruises so that this question can be examined again at the next SSP meeting. The remainder of the data is satisfactory at all sites.

Because of the need for last minute determination of actual drill sites the panel cannot rank the readiness for drilling of this proposal.

SSP Consensus # 22: It is most unfortunate that in spite of the serious efforts made by the proponents of Australia - Antarctic Discordance proposal (426) satisfactory seismic and 3.5 kHZ data do not exist to judge the sediment thickness at all sites. Taken the available data as a whole, however, it does appear as though sedimented areas exist within the AAD. Some 3.5 kHZ data collected on other cruises near by the proposed sites exist but these are not in the data bank. In view of the lack of strict site location in this proposal it is possible that the final site selection can be done using the high resolution data collected from J/R on approaches to the sites but in the absence of a general sediment thickness map for the region such an approach can be very time consuming. The proponents are thus urged to compile this information from all existing data in the region so that this question can be examined again at the next SSP meeting. The proposal is judged to be ready for drilling in other respects.

9. POTENTIAL FUTURE DRILLING: Antarctic Proposals

9.1 Antarctic Peninsula Pacific Margin: Antarctic Glacial History and Sea-Level Change. (452-Add2, 453 and LOI 68)

SSP Watchdog: Lykke-Andersen
SSP Proponents: None
Target Type: B (passive margin) and A(paleoenvironement)

This proposal is composed of the original proposal 452 with elements added from proposal 453 (Bransfield Strait) and LOI 68 (palmer Deep). The main objective of the composite proposal is to study the glacial history of the Antarctic Peninsula, including estimation of temporal variations of grounded ice volumes as basis for evaluation of the glacial influence on sea-level changes observed at low latitudes.

All the sites, except site APSHEL-13A , have been assessed as Target Type B (Passive Margin). Site APSHEL-13A designed for shallow, high-resolution stratigraphic investigations in Palmer Deep was classified as Target Type A (Paleoenvironment).

SSP acknowledges the efforts made by the proponents to establish a site survey package of good quality. The MCS-profiles and the SCS-profiles are of high quality. On the other hand the 3,5 kHz data does not contain much except for bathymetric information.

It is noted that some of the sites do not completely fulfil the requirements according to target type. It is found that the high-priority site APSHEL-01A is located on a dip line without a crossing line. Although parallel lines are located nearby it is recommended that the proponents try to provide lines that can image the progradational deposits in the strike direction. This may help to assess the horizontal extent of the depositional elements of the progradational unit. In case the depositional lobes have a limited extent the unconformities observed in the dip direction may represent the effect of local shifting of depositional lobes rather than events of more global significance.

Some of the low-priority sites and the alternate sites are also not located on intersecting lines: APRISE-04A and -05A; APSHEL-05A, -06A and -12A; APSSTR-01A and -02A. Additional crossing lines are required for these sites. It is recommended to consider relocation of site APSSTR-01A so as to avoid problems related to dipping structures seen as sideswipe on line HESP92-11.
For some sites (APRISE-01A and -04A and APSHEL-13A) 3,5 kHz profiles are still to be provided to the databank.

It is now mandatory to have realistic alternate sites in ice infested waters which can be drilled to achieve the objectives in case the prime sites can not be approached because of ice condition present at the time of drilling. Therefore

the proponents are requested to supply this information to the Data Bank with the required data by November 1 deadline.

The velocity information available in the databank is found in the top-header of the MCS-profiles. SSP agrees that the interval velocities calculated from stacking velocities are not satisfactory for depth calculations. It will therefore be much appreciated that accurate velocity to be used in depth calculations is supplied to the Data Bank.

During inspection of the seismic profiles the presence of a Bottom Simulating Reflection (BSR) was noted at 500-600 msec bsf on IT92-109 close to site APRISE-01A and -03A. The proponents seem to interpret the BSR as a silica diagenetic BSR. SSP is of the opinion that the BSR may as well be related to gas-hydrates., SSP is therefore concerned about the safety implications and this was discussed with PPSP chair present at the meeting. PPSP may hold a pre-review of this proposal if it becomes a Leg.

The site survey readiness is considered to be 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.") SSP urges the proponents to provide the remaining data to the data bank before the Nov. 1. deadline.

SSP consensus # 23: Data submitted to the data bank in support of Antarctic Peninsula Pacific Margin 452/453 drilling program are generally of good quality. However, a number of primary and alternate sites require seismic profiles and 3.5 kHz data. A refined velocity model will enhance the data package. Some safety concerns exist at a few of the sites and PPSP may hold a preview of this proposal if it becomes a Leg. A number of sites needs alternate sites. The proposal is ranked as 2A.

9.2 Palmer Deep (502)
SSP Watchdog: Peterson
SSP Proponent: None
Target Type(s): Paleoenvironment (A)

This proposal, which expands upon objectives presented in LOI 68, calls for the recovery of an ultra-high resolution Holocene record from the Palmer Deep, a small basin located on the western side of the Antarctic Peninsula. Previous work on cores from the Palmer Deep has revealed a record of fluctuations in oceanic productivity of unparalleled resolution preserved in the laminated, pelagic/hemipelagic siliceous oozes. Drilling plans call for the quadruple coring of the complete 50-55 m-thick sequence at a single location in Basin I (1040 m W.D.). The total drilling time at this unique site-of-opportunity is estimated at less than one day.

Site survey data for proposed site APSHEL-13A need to satisfy the requirements for target type A (Paleoenvironment). Survey data recently submitted already come close to satisfying these needs. The primary site (APSHEL-13A) in Basin I falls along a good quality, north-south trending seismic line obtained with a deep-towed HUNTEC (boomer) source. Although the site position is noted on the profile, navigation data need to be submitted that identify the exact location on the line with respect to time or shotpoint. Also required for this target type are 3.5 kHz data . These appear to exist but have not yet been submitted to the Data Bank. An alternate site, APSHEL-13B, has been identified in Palmer Basin II, but the exact position needs to be specified on the HUNTEC line and navigation and 3.5 kHz data also need to be submitted. The proponents must realise that it is now mandatory to have realistic alternates sites in ice infested waters which can be drilled if the primary site remains covered by ice at the time of drilling. Therefore the chosen alternate site must satisfy this condition.

The site survey readiness level for this program is considered by SSP to be 1B. Pending final submission of the few missing data items, we anticipate that Palmer Deep drilling can be approved in short order.

Site Survey Readiness Classification: 1B

SSP Consensus # 24: Data already submitted in support of Palmer Deep (502) drilling come close to satisfying SSP requirements for target type A drilling. Navigation data for the seismic survey need to be supplied, as well as the accompanying 3.5 kHz profiles for both the primary and alternate sites. This program is ranked as 1B in terms of readiness. SSP urges the proponents to submit the final few vital data items to the Data Bank in a timely manner and wishes them luck in the scheduling of this exciting site-of-opportunity.

9.4 Prydz Bay (490)
SSP Watchdog: Sibuet
SSP Proponent: None
Target Type(s): B (Passive margin)

Proposal 490 (Prydz Bay) is one of the 5 Antostrat proposals dealing with ice sheet fluctuations to document oceanic changes such as sea surface temperature, bottom water formation and sea ice extent.
There is a large amount of seismic lines on the continental slope but just a few lines in the deep ocean. The quality of these lines, acquired by different institutions (BMR, Japan and Russia), is probably different but it is difficult to have a precise idea as no data, except for what is mentioned in the proposal, have been deposited in the Data Bank.
Like the other Antostrat proposals, we have classified all the sites of this proposal as target B (passive margin), even if all these sites have paleoenvironmental objectives, because the proposed penetration is always larger than 400 m. MCS data and crossing lines with velocity analyses are required. 3.5 kHz data are also required. These must be taken into account during the site survey cruise planned by the end of 1996-beginning of 1997.

It is now mandatory to have realistic alternate sites in ice infested waters which can be drilled to achieve the objectives in case the prime sites can not be approached because of ice condition present at the time of drilling. Such sites must be included in the proposal.

Proponents mention that data of the planned site survey would be deposited in the Data Bank by July 1, 1997. The site survey readiness of the proposal is therefore 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).

> **SSP Consensus # 25: There is a large amount of seismic lines on the continental slope but just a few lines in the deep ocean. The quality of these lines, acquired by different institutions (BMR, Japan and Russia), cannot be evaluated as no data have been deposited in the Data Bank. Like the other Antostrat proposals, where the proposed penetration is larger than 400 m, we have classified all the sites of this proposal (Prydz Bay proposal, 490) as target B (passive margin), even though these sites have paleoenvironmental objectives. MCS data and crossing lines with velocity analyses together with 3.5 kHZ data are required. As data of a planned site survey would be deposited in the Data Bank by July 1, 1997, the site survey readiness of the proposal is judged as 2B.**

9.5 Weddell Sea: Glacial History and Evolution of Restricted Mesozoic Basin (503)
SSP Watchdog: Hinz
SSP Proponent: None
Target Type(s): D (Open ocean crust/>400m sediment), B (Passive Margin) for sites W503A/04A/05A/06A

This proposal is a combination of Proposal 449 ("Drilling Proposal for the Dromming Maud Land Margin/NW Weddell Sea: Evolution of the restricted Weddell Sea Basin") and of Proposal 488 ("Linking changes in the Southern Ocean circulation and terrestrial events in East Antarctica - the Weddell Sea record"), and it involves five sites in the southern Weddell Sea.

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The objective of three sites (WS01A/03A/04A) concerns the development of the Cenozoic ice shield of East Antarctica.

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Sites WS01A(WS02A is an alternate) with a total penetration of 500m and located on the Polarstern Bank in a water depth of 3,456 m is judged a target type D.

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Sites WS03A and WS04A are located on a levee on the lower part of the Crary Trough Mouth Fan in water depths between 3,300 and 3,700 m. Both sites are judged as target type B.

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The objectives of Sites WS05A and WS06A concern the development of the widespread anoxic "black shale" environments in the Mesozoic Weddell Sea basin, one of the oldest basins formed during early fragmentation of Gondwanaland, and the time and nature of the volcanic Explora Wedge.

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Site WS05A with a total penetration of 800 m lies approximately 10 nm to the northeast of ODP Site 693 in water depths

of 2,550 m. Site WS06A with a total penetration of 1,350 m (~50 m basement penetration) is located few miles to the north of ODP Site 692 in water depths of 3,020 m, and may need reentry.
Both sites are judged as target type B.

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Although only site survey data for ODP Leg 113 are in the Data Bank, it is known that a very extensive set of site survey data required and recommended for target types B (Passive Margin) exist from the southern Weddell Sea including updated index maps, bathymetric maps and geophysical compilations, e.g., OMD Atlas, etc., and CD-ROMs carrying all MCS data that have been acquired prior to 1985. The latter were produced by the SCAR Seismic Data Library System (SDLS). There will be a Norwegian and a German cruise in the season 1996/1997 that will do additional surveying according to the recent report of the Antarctic DPG.

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SSP strongly recommend that the proponent acquire all required and recommended data for target type B as outlined in Joides Journal V. 20, No.2 p27, 1994. The proponents should also consider that alternate sites may be needed due to possible drilling problems, e.g., glacial erratics, and ice conditions. It is now mandatory to have realistic alternate sites for each site in ice infested waters so that these sites can be drilled if the prime sites are found to be covered with ice at the time of drilling. The proponents are urged to bear this in mind when choosing alternate sites.

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Site Survey Readiness Classification: 2A

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> **SSP Consensus # 26: It is almost certain that the site survey requirements for the Weddell Sea proposal (503) will be satisfied by the existing data, and by the data soon to be acquired during the both forthcoming cruises. The proponents should assemble the data sets not only for the proposed sites but also for recommended alternate sites and submit it before November 1 deadline should it get highly ranked by the thematic panels during the fall meeting.**

9.6 Wilkes Land Margin - Ross Sea: Paleoceanography (482/489)
SSP Watchdog: Casey/Paull
SSP Proponent: None
Target Type(s): B (Passive margin)

A combined proposal of these two regions was formulated after DPG meeting on Antostrat. The proponents of the two proposals, 482 and 489, have put these two proposals with three things in mind.
1. Drilling two standard legs with a port call in New Zealand (or Australia)
2. Drilling only one region
3. Drilling a super leg of 82 days consisting of two short legs with a break at McMurdo Station

Evaluation of this combined proposal thus had to be carried out as two separate proposals in view of the above scenario. It would be rather difficult to envisage an 82 days leg even with a port call. Both proposals address similar scientific objectives; deciphering the history of Antarctic Ice sheet and the related sea-level, paleoceanographic, paleoenvironmental changes. A number of sites for Wilkes Land and for Ross Sea have been proposed. These are located in water depths of 467 to 3710 m whose depth of penetration varies from 500 to 1000 m. Most of them will require RCB. They are, therefore, are classified under target type B (Joides Journal v. 20, no. 2, p27, 1994). This will require high resolution as well as multichannel seismic reflection data, with cross lines at each proposed site, good velocity control to calculate drilling target time, and gravity and magnetic data. For use of re-entry cones some cores information will be needed in the vicinity of the proposed sites.

No data for the Ross Sea region has been yet submitted to the DB, although the addendum suggests that a CD Rom has been submitted. No such CD was received at the DB. Thus, Ross Sea could not be evaluated.

Wilkes Land data package included IFP MCS data, navigation and shotpoint, velocity structure, gravity and magnetics and information on sediment cores. No seismic data were submitted for WLR!IS02A (WLT5). There is no 3.5 kHz data supplied and none indicated as available. This is a required data set. In addition, crossing seismic lines are required for each site. Additional data from the Japanese Oil Co and USGS should be deposited as soon as possible. New seismic and 3.5 kHz data from the Italian cruise ('97,'98) or resulting from a pending NSF proposal would be necessary prior to consideration, if indeed 3.5kHz data is not available. In addition, the ice and weather windows will be difficult to meet during of a super-leg of 82 days and should be carefully considered in the revised proposal.

It is now mandatory to have realistic alternate sites which can be drilled to achieve similar objectives in case prime sites are found to be ice covered at the time of drilling. Proponents must bear this in mind when proposing alternate sites.

Since no data is yet in the data bank it is impossible to make a detailed assessment at this time. However, the summary information presented in the original proposals and knowledge of the region suggests that much of the required data may already exist. A site survey cruise is planned for the Ross Sea.

SSP Consensus # 27: Substantial amounts of data appear to exist for Wilkes Land - Ross Sea proposal, but no data is yet in the data bank. Both proposals are classed as target type B (passive margin) . Additional data is proposed to be collected on an upcoming Spanish cruise, which if successful could provide all the needed data for the Ross Sea. For Wilkes Land new seismic and 3.5 kHz data from the Italian cruise ('97,'98) or resulting from a pending NSF proposal would be necessary prior to consideration, if indeed 3.5kHz data is not available. In addition, the ice and weather windows will be difficult to meet during of a super-leg of 82 days and should be carefully considered in the revised proposal.

10. Long Range Plans: (Ellins, Srivastava)
10.1 LRP - Revision of Advisory Structure

Kathy Ellins gave a detailed overview of the new proposed JOIDES Advisory Structure (Appendix G).

10.2 Role of SSP in the new scheme.
10.2.1 Role of SSP:
In the new set up there will be four service panels; TEDCOM, SSP, PPSP, and a new panel called scientific measurement panel. Service panels had not been considered at length by PCOM because of lack of time. It is our understanding that SSP would be largely unaffected by the revision.

Because the new program is structured along the fiscal year cycle it changes all meeting schedule. Chart 2 in Appendix A shows the meetings schedule. It shows that SSP is to meet twice a year; once on Jan15 and then on July 15. This could mean more work for an already busy SSP. SSP will feedback to proponents and interact with the PPG's and contribute information to the scheduling package that goes forward to SCICOM-OPCOM. However, it is not envisaged that SSP will interact with the SSEPs other than to receive scientifically mature proposals from them for site survey consideration. In other words SSP is not to have a liaison member attending their meetings. Interaction with PPG's may be through some liaison- though this is not certain because of the number of PPG's which may be set up.

10.2.2 Role of the Data Bank: The Data Bank is seen as taking some of the load off SSP in two ways. One by carrying out preliminary check on the kind of data required and what exist for all the proposals received by the Joides Office on Oct. 1. This is done for the benefit of SSEP's. The second task would require proposal vetting for target types and site survey data availability for highly ranked proposals as recommended by SSEP's for SSP. There will be two data deadlines - 1st Jan & 1st July - giving two weeks for data preparation for the SSP meetings on 15th Jan & 15th July. The "Proposal Timeline" figure (Appendix G) was a most useful figure for envisaging the flow of work.

10.2.3 Points raised in discussion by SSP: The following points were raised in discussion:

- The role of the Data Bank in conjunction with the specifications of the upcoming RFP, e.g. staffing, tasks, location.
- The timing of the data deadlines with respect to SSP meetings.
- The interaction of SSP with PPG's and SSEP's and the timing of this.
- The need for two proposal deadlines.
- The role of the Data Bank at the preliminary stage and a checklist for proponents.
- The need for any site survey review before scientific peer review.

- The ability of the Data Bank to adjust to the advisory structure revisions within its current contract.

- The work load on SSP - how to limit the number of proposals handed down by the SSEP's.

- The possibility of a proposal build up in the system - how to avoid keeping weak proposals in the system unnecessarily.

- The perception of the work of SSP as simply a mechanical exercise rather than one in which the quality of data and the scientific objectives are important.

10.2.4 Recommendations

Following the discussion these recommendations were made:

- The preliminary role of the Data Bank in preparing a checklist of data requirements for all proposals received in the JOIDES Office should be replaced by a checklist that proponents complete. The contents of the checklist can be tailored to meet the objectives of this phase as envisaged by EXCOM/PCOM. This would not require Data Bank involvement.

- The panel did not see any point in the data bank doing the second task of categorising the highly ranked proposals for their data type requirement as this will have to be done again by SSP as part of the evaluation processes and to understand the proposals. With its present staff it is not practical for the Data Bank to judge whether a proposal has the data required, bearing in mind that there is much, much more to this judgement than just whether a seismic record exists or not. Even if additional staff (scientist) is hired to do this, one cannot replace the breadth of scientific expertise required to do it properly. This is one of the major mandates of SSP on which the entire judgement of data adequacy is built. The panel appreciates the efforts being made to reduce its workload in this new document but this cannot be achieved by transferring some of its responsibilities to the Data Bank. No doubt the Data Bank plays a key role in SSP operation and ways to improve DB's function was already discussed at SSP March 96 meeting. SSP workload can be decreased more effectively by decreasing the number of proposals it has to evaluate for their data readiness.

- Limit the total number of new and highly ranked proposals passed down to SSP from the SSEP's. This will allow SSP to do its job properly. In our experience, about 15 proposals is the most SSP can handle in detail at a meeting. The limiting factors will be science quality, timeliness, relevance to LRP, location w.r.t. area of operation, safety and technical demands (and possibly even site survey readiness if there has been no new site survey data since the last meeting).

- Allow more time for the Data Bank to prepare material for SSP meetings. Move data deadlines to 15th December and 15th June.

- SSP liked the idea of its participation in PPG's. However it was not clear how this liaison would be set up. SSP would prefer if members from PPG's would substitute for absent US SSP members on demand like is done at present with the thematic panel members.

- There should be no SSP review until the science peer review has been completed. This will avoid SSP spending time on proposals that are rejected after peer science review. This may not arise if SSP reviews at its meetings mainly proposals which have gone round the system once.

- Following from this, site survey data should only be requested of proponents once their proposal has been favourably reviewed by SSEP's. This will limit the amount of redundant data in the system.

- Establish SSEP liaisons to SSP like PCOM at present. This will allow SSEP's to appreciate the finer points of site survey data judgement and will allow informed decisions at the SSEP's, in much the same way as PCOM has the benefit of a liaison on SSP at the moment. It would also help the feedback that they have to give to proponents of immature proposals as well as allowing them to assess, in an informal way, the survey maturity of scientifically mature proposals.

- Consider, at least in outline, the flow of proposals through the new advisory structure to make sure there will be neither blockages caused by too many proposals nor over-zealous rejection to leave to few.

On the whole SSP liked the new scheme as it will bring some new thinking into the ODP.

10.3 Report of SSP subcommittee on Phase IV of ODP (Casey, Srivastava)

Jack Casey, one of the member of this subcommittee, mentioned that little or no progress was made on this item since our Edinburgh meeting. He also mentioned his and Srivastava's attendance at the InterRidge meeting held at WHOI dealing with the Phase IV problem. Since the organisers of that meeting were to produce a report dealing with this subject, it was decided to postpone any discussion until this report is available to SSP. Any discussion on this item was therefore deferred to the next meeting.

10.4 Review of Conflict of Interest Policy (Ellins)

Joides representative Kathy Ellins distributed a recent amendment to the conflict of interest to all present and explained the differences between it and the earlier version. Appendix D describes the new guidelines. The new regulation do not affect SSP members, on the contrary they are more helpful.

10.5 Panel Membership and Liaisons (Srivastava)

SSP Chair Srivastava mentioned that terms of appointment for two of the foreign members, Roger Scrutton from U.K and Jean-Claude Sibuet from France are due to expire after November meeting. He suggested that because so much changes are going to take place in the ODP in the coming year that it would be helpful to this panel if these two members would be willing to stay on for another year with the panel. Both of them are to let the Chairman know if this would be possible so that he could approach their countries with appropriate requests before the next meeting.

It was noted that because of the move of the JOIDES office in October 96 to WHOI, Kathy Ellins, our Joides liaison, may be replaced by a new liaison person starting at November meeting. Similarly we also learnt the Sandy Shor will be leaving NSF/ODP office and will be replaced by another NSF member.

SSP Consensus # 28. SSP would like to thank both Kathy Ellins and Sandy Shor for their contributions to the working of this panel. Their efforts in steering this panel to keep on tracks have been most valuable. We wish them both all the best in their new endeavours.

10.6 Next meeting (Srivastava)

Dates for the next three meetings were discussed. Most felt that having a three and a half days meeting was an excellent idea specially when members have to spend a great deal of time inspecting the data. Most felt lot more relaxed and were able to complete their assignments with little difficulty. They all voted for three and a half meeting for November as well. The meeting dates for November meeting will be:

November 11 to 14, 1996 at LDEO

As usual it will be hosted by Greg Mountain and Dan Quoidbach.

For April meeting dates as firmed up by our Japanese host Hidekazu Tokuyama will be:

April 7 to 9, 1997 Japan

We also discussed the dates for next July meeting. As this meeting may have to follow the suggested dates it was decided to hold this meeting from

July 14 to 17, 1997 LDEO

Action item # 1 . SSP Chair Srivastava to write to PCOM Chair asking for permission to hold next SSP meeting at LDEO from November 11 to 14, 1996. He is also to inform PCOM Chair about dates for the next two meetings.

As Doug Toomey will be at sea he will not be able to attend November meeting.

Action item # 2. SSP Chair Srivastava to write to LITHP Chair for a member from their panel to act as an alternate for Doug Toomey for November meeting.

10.7 Other business

SSP Chair Srivastava thanked David Scholl for looking after John Diebold's assignments at this meeting and for doing

such a superb job. Now John would have to make sure that he will be able to keep it up.

SSP Consensus # 29. SSP would like to thank TECP for providing David Scholl to substitute for John Diebold, the absentee SSP member.

SSP Consensus # 30. SSP would like to thank Roger Scrutton and Dan Quoidbach for hosting the March and July meetings in Edinburgh and at LDEO respectively. Both of them have been superb host for these meetings. SSP would also like to thank the staff and associates of ODP Data Bank for their help during the meeting at Lamont.

Appendix A

SSP Watchdog Assignments Scheduled Legs

Leg	*Proposal Name*	*Prop. No.*	*Nov 1993 (Lamont)*	*April 1994 (B-rest)*	*July 1994 (Lamont)*	*Nov 1994 (Lamont)*	*APRIL 1995 (BIO)*	*July 1995 (Lamont)*	*Nov 1995 (Lamont)*	*March 1996 (Edinburgh)*	*July 1996 (Lamont)*
169	Sedimented Ridges II	SR-DPG	Srivastava	Srivastava	Srivastava	Srivastava/ Casey	Casey/ Quoidbach	Quoidbach	Casey/ 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	Data set complete
171B	Barbados LWD	475							Sibuet	data set complete	data set complete
171C	Blake Nose	462		not yet submitted	discovered in DB cubbyhole	Mountain	Mountain	Lykke-Andersen	Lykke-Andersen	data set complete	data set complete
172	NW Sed Drift	404	Mountain	Mountain	Mountain	Mountain		Lykke-Andersen	Lykke-Andersen	Lykke-Andersen/ Quoidbach	Lykke-Andersen/ Quoidbach
173	Iberia II (NARM-non-volcanic)	461, 461-add	Mountain	Mountain	Mountain	Mountain	Mountain	Diebold	Enachescu	Enachescu/ Quoidbach	Enachescu/ Quoidbach
174A	New Jersey Shelf II	348-add		Kastens	Farre	not in prospectus	Kastens	Flood	Flood	Flood/ Quoidbach	Flood/ Quoidbach
174B	CORK 395A/Engineering	424							Toomey	Toomey/ Quoidbach	data set complete
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	Paull/ Quoidbach

SSP Watchdog Assignments Scheduled Legs

Leg	*Proposal Name*	*Prop. No.*	*Nov 1993 (Lamont)*	*April 1994 (B-rest)*	*July 1994 (Lamont)*	*Nov 1994 (Lamont)*	*APRIL 1995 (BIO)*	*July 1995 (Lamont)*	*Nov 1995 (Lamont)*	*March 1996 (Edinburgh)*	*July 1996 (Lamont)*
176	Return to Hole 735B	300-rev	Srivastava	Srivast-ava/ Quoidbach	out of geo. area	out of geo. area	Casey	Scrutton	Casey	Casey/ Quoidbach	Casey/ Quoidbach

SSP Watchdogs
Highly Ranked Unscheduled Proposals

SR '94	*FR '94*	*SR 95*	*FR 95*	*SR 96*	*Title*	*Prop.*	*April 1994 (Brest)*	*July 1994 (Lamont)*	*Nov. 1994 (Lamont)*	*April 1995 (BIO)*	*July 1995 (Lamont)*	*Nov 1995 (Lamont)*	*March 1996 (Edinburgh)*	*July 1996 (Lamont)*
		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	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	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	Toomey
				T-3	W. Pacific Seismic Net-work	431							Toomey	Toomey
		L-6	--	L-7, S-7	Izu-Mariana Mass Balance	(435-Add2), 472	--------	-------	------	Scrutton	out of geographic area	not in prospectus	Scrutton	Scrutton
		S-7	--	S-13	Nicaragua	(435-Rev), 471	--------	--------	--------	Scrutton	Scrutton	not in prospectus	ranked low	ranked low

SSP Watchdogs
Highly Ranked Unscheduled Proposals

SR '94	*FR '94*	*SR 95*	*FR 95*	*SR 96*	*Title*	*Prop.*	*April 1994 (Brest)*	*July 1994 (Lamont)*	*Nov. 1994 (Lamont)*	*April 1995 (BIO)*	*July 1995 (Lamont)*	*Nov 1995 (Lamont)*	*March 1996 (Edinburgh)*	*July 1996 (Lamont)*
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	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	Kinoshita
		S-4 T-7	--	S-2, T-5	Nankai defor. & fluids	445-Rev	------	--------	--------	Camerlenghi	out of geographic area	not in prospectus	Paull	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	Enachescu
		L-3	--	L-1	Ontong Java Plateau origin	448				Tokuyama	out of geographic area	not in prospectus	not quite ready	out of area of operation
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	Sibuet
		L-7	--	L-4, T-7	Tonga Forearc	451-Rev2, Rev3				Scrutton	out of geographic area	not in prospectus	Diebold	Scholl/ Srivastava

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SSP Watchdogs
Highly Ranked Unscheduled Proposals

SR '94	*FR '94*	*SR 95*	*FR 95*	*SR 96*	*Title*	*Prop.*	*April 1994 (Brest)*	*July 1994 (Lamont)*	*Nov. 1994 (Lamont)*	*April 1995 (BIO)*	*July 1995 (Lamont)*	*Nov 1995 (Lamont)*	*March 1996 (Edinburgh)*	*July 1996 (Lamont)*
		L-4	L-4, T-5, S-6	L-6, T-10	Kerguelen Plateau	457-Rev, Rev3				Hinz	Tokuyama	Tokuyama	Hinz	Hinz
		O-3	O-3, S-5	O-1, S-12	Southern Ocean Paleoceano.	464	-----	-----	----	Peterson	Flood	Peterson	Flood	Flood
		O-6	--	O-3	SE Pacific Paleocceano.	465-Add	-----	-----	------	Peterson	Tokuyama	not in prospectus	Peterson	Peterson
		T-4	T-4, L-6		Romanche FZ	468	------	-------	------	Kastens	Diebold	Toomey	ranked low	ranked low
			S-4	S-6	Hudson apron	476						Flood	Flood	Flood
			L-2, S-2	S-1, L-3	Red Sea	481						Scrutton	Scrutton	Scrutton
				O-5, S-5, T-6	E. Asian Monsoon History	484							Peterson	no data
				O-6	S. Gateway Australia-Antarctica	485							Casey	Casey
				Ants.	Antarctic Glacial History	452	-	-	-	-	-	-	-	Lykke-Andersen

SSP Watchdogs
Highly Ranked Unscheduled Proposals

SR '94	*FR '94*	*SR 95*	*FR 95*	*SR 96*	*Title*	*Prop.*	*April 1994 (Brest)*	*July 1994 (Lamont)*	*Nov. 1994 (Lamont)*	*April 1995 (BIO)*	*July 1995 (Lamont)*	*Nov 1995 (Lamont)*	*March 1996 (Edinburgh)*	*July 1996 (Lamont)*
				Ants.	Bransfield St., History	453	-	-	-	-	-	-	-	Lykke-Andersen
				Ants.	Palmer Deep	502	-	-	-	-	-	-	-	Peterson
				Ants.	Prydz Bay	490	-	-	-	-	-	-	-	Sibuet
				Ants.	Weddell Sea	503	-	-	-	-	-	-	-	Hinz
				Ants.	Wilkes Land	482	-	-	-	-	-	-	-	Paull
				Ants.	Ross Sea	489	-	-	-	-	-	-	-	Casey

APPENDIX B

SSP 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.

NSF OCEAN SCIENCES DIVISION

Ocean Sciences

- Budget Estimate is $193.7 Million
- Increase of $0.9 Million or .5%

	FY 1994	FY 1995	FY 1996
Ocean Sciences Research	$100.0 M	$102.6M	$104.9M
Oceanographic Centers & Facilities	50.3M	50.4M	48.9M
Ocean Drilling Program	38.7M	39.8M	39.9M
	189.0M	192.8M	193.7M

- Major Research Initiatives

	FY 1994	FY 1995	FY 1996
Global Change Programs	$53.7M	$57.7M	$57.6M
Biotechnology	4.0M	3.6M	3.0M
High Performance Computing	0.4M	0.8M	0.8M
Environmental Research	7.3M	7.7M	7.3M
Smete (EHR)	2.1M	2.9M	3.1M
	$67.5M	$72.7M	$71.8M

• Other Research Activities	$121.5M	$120.6M	$121.9M

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NSF Ocean Drilling Program
Field Program Grants, 1997 Cruises

OSN-1 Pilot experiment. Ralph Stephen (WHOI), John Orcutt (SIO) and Tokuo Yamamoto (RSMAS). Deploy and recover surface, buried and borehole seismometers off Hawaii. Jointly supported by ODP, MG&G Programs and the Earth Sciences Division of NSF.

Data Recovery from Instrumented CORKs. Keir Becker (Miami) and Earl Davis (Canada). CORKs to be deployed on ODP Legs 168 and 169 (Juan de Fuca Hydrothermal and Sedimented Ridges II) by JOIDES Resolution. Data recovery will use ROV JASON. A second data recovery leg in 1998 will use the D/V ALVIN submersible.

Sediment Coring and Seismic Reflection in the SE Pacific. Alan Mix and Niklas Pisias (OSU) and Larry Mayer (UNB, Canada). This Quaternary paleoclimate/paleoceanography study and site survey supports JOIDES proposal #465.

On-Bottom Seismic Refraction Study of Crustal Structure on the Mid-Atlantic Ridge. John Collins and Robert Detrick (WHOI). Conduct NOBEL refraction studies at sites with various known basaltic and ultramafic rock exposures. Jointly supported with the RIDGE Program in MG&G.

Heat Flow, Pore Fluid Geochemistry and Sedimentology Study of the Mariana Forearc. This ROV JASON study is led by Patricia Fryer (Hawaii).

Coring and Seismic Reflection Study of the Paleogene Equatorial Pacific. Ted Moore and David Rea (Michigan) and Mitchell Lyle (Boise State). This study of the equatorial Paleogene "hot house" addresses JOIDES proposal #486 and MESH objectives.

Site survey readiness classification of proposals considered during July 96											
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-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**								
Antostrat			**452/ 453**								
Antostrat		**502**									
Antostrat				**490**							
Antostrat			**503**								

* --- see detailed comments.
( ) --- not ranked.

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Quantitative Classification of proposals
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 F

REVIEW OF 451-ADD2 PROPOSAL (7/1/96)
(Dave Scholl, 7/31/96, Lamont)

I) DRILLING SCIENCE AND STRATEGY

- Basic science questions of Tonga forearc drilling proposal deal with:
  (1) initiation of subduction and nature of early arc volcanism [middle Eoc],
  (2) origin of suprasubduction zone ophiolite,
  (3) physical and chemical controls on arc magmatism,
  (4) tectonic erosion of forearc and mass flux of terrestrial material into mantle.
  (5) effects of the subduction of a major physiographic feature
  (6) Regional control on dynamics of ocean margin basin formation

- Drilling strategy is to drill three transects, 6-7 sites, laterally along the forearc that cross 3 separate structural domains. Controls can be extend to exposed rocks on Tongan islands, dredge results, industry drill holes, and Leg 135 drilling.

Main Sites Are Presently:

+ Alternate **TONG 08A** benchmark site, 26 deg S. (Louisville "terrace" site)

+ Southern transect, sites **TONG 01A** (ridge crest, paired with 840) and 841 (forearc terrace), 23-24 deg S [Horizon Bight transect]

+ Central transect, sites **TONG 03A** (Tofua Arc) and **TONG 02A** (forearc terrace), 21-22 deg S [Eua transect]

+ Northern transect, sites **TONG 04B** (ridge crest) and **TONG 10A**(alternate 05B and 09A)(forearc terrace), 17-18 deg S

+ Ridge crest. **TONG 06B**, 15 deg S (Tofua arc)

II) STATUS OF SITE SURVEY INFORMATION

- Most of the site survey information now available includes SCS, MCS, refraction, gravity and magnetic, heatflow, multibeam, standard bathymetric, dredge, and drilling data gathered mainly during cruises of:
  + R/V *Melville* Boomerang cruise, May-June/96 [SCS, multibeam, sidescan, gravity, magnetic, gravity core, dredge over and in vicinity of each proposed drilling site]
  + R.V. *Thomson* cruise (von Herzen) of 1993 [SCS, multibeam, heatflow, gravity cores]
  + ODP Leg 135--1991(?) [SCS, magnetic(?), drilling /sampling/logging(?)]
  + R/V *Washington*, 1989 (Hawkins)[dredging, scs]
  + R/V *Lee* Tripartite SOPAC cruises of 1982 and 1984 [MCS, SCS, 3.5 khz, sonobuoy refraction, dredge, gravity and magnetic, bathymetry]
  + R/V Natsushima of 1984(?), 6-fold MCS, SCS, dredging, geopotential (?)
  + Older (pre-1980) SIO, FSU, French (EVA), and industry data [MCS (Mobil, 1972; Shell, 1973; Webb-Tonga, 1979), and drilling, magnetic, gravity, SCS, refraction, conventional bathymetry, and dredge].

- Based on results of 1996 *Melville* cruise:
  + Site-survey data are reasonably complete for forearc from 14-26 degs south (~1300 km).

+ Multibeam coverage north of 21 S is nearly 100 percent.
+ All proposed sites were surveyed, sidescan, SCS, 3.5 khz gravity core, gravity, magnetic, multibeam

- Present form of revised proposal integrates the results from the 1996 Boomerang cruise of the R/V *Melville* and calls for minor changes to existing drilling plan of Proposal 451. Changes involve:
  + Better site postioning,
  + Based on new dredge and SCS data, abandonment of one site.
  + A new site south of the Louisville Ridge collision point was surveyed to meet request of TECP for a "benchmark or pre-collision site south of the Louisville..

- Melville dredging established that suprasubduction ophiolite is present:
  + Volcanic rock at < 4.5 km, except adjacent to Horizon deep where they occur to trench floor (10+ km)
  + Gabbro/diabase at 6-4.5 km
  + Ultramafics at 6-9 km

III) METHODOLOGY AND DRILLING DATA NEED

- **OBJECTIVE--Opening of Lau Basin in Conjunction with Tearing and Rotation of Arc Massif and Trailing Flow of Asthenosphere**

+ Oriented cores for paleomagnetic reconstructions of arc rotation via core-log integration and use of multishot tool. Requires BHTV and FMS data. Tilted beds are expected in cores to assist reorientation measurements.

+ Measurement of orientation of present in-situ stress regime and, if possible, magnitude by breakouts to assess nature of interplate coupling.

+ Isotopic and trace-element analyses of recovered rocks to assess if asthenosphere is moving southward from Samoan tear and getting involved in arc magmatism and timed with opening of Lau Basin.

- **OBJECTIVE--Assessing Mechanism of Background Rates and Accelerate Rates of Tectonic Erosion (Subduction of Louiville Ridge)**

+ History of vertical tectonism via faunal indicators and location of unconformities/hiatuses of recognizable water-depth origins.

+ Mesoscale structures seen in core need to be compared to FMS and BHTV data.

+ Rates and direction of tilting with time by comparing core data with logging data (at 841 oldest beds dip as steeply as 60 deg)

- **OBJECTIVE--Does Subduction of Large Seamount Chain Trigger Arc Rifting and Backarc Basin Opening?**

+ Same basic needs as listed above with respect to reconstructing history of vertical tectonism and forearc faulting and deformation.

- **OBJECTIVE--Documentation of Spatial and Temporal Variations in Arc Volcanism with Respect to Regional Geodynamics**

+ Must be able to recover volcaniclastic section for detailed ion-probe geochemical analysis of volcanic ash issued from the Tofua volcanic arc cresting the Tonga Ridge.

- **OBJECTIVE--To Constrain Nature of Volcanism in Intra-arc Forearcs Immediately After Initiation of Subduction (Suprasubduction zone ophiolite test)**

+ Requires getting good samples of forearc basement rock

IV) SITE-SURVEY OF ODP PROPOSAL 451-ADD2 AS MODIFIED WITH INCLUSION OF NEW R/V *MELVILLE* BOOMERANG DATA, MAY-JUNE, 1996

- **SITE TONG-01A:** Site is located along crest of ridge between Tofua volcanic arc and western edge of southern summit platform area. Purpose of drilling is to reach basement and determine its nature and origin. Overlying sedimentary section will provided information on history of vertical tectonism and the onset and history of Tofua arc volcanism..

  + **Site Defining MCS Data:** The location of the site-defining sector of MSC line, Lee 82-11, is not provided, but the data look okay. Presumably line 82-11 is located along Melville line 1 identified in full DB-7080 Boomerang-8 cruise report. The section of MSC line 82-11 crossing site exists in migrated form.

  + ***Melville* Data**: In the full DB-7080 Boomerang-8 cruise report the geographic location of site-crossing SCS lines are not definitively located on index bathymetric maps. Also no horizontal scale or VE are given on the seismic lines. This circumstance made it hard to easily grasp location and critical relation of the new seismic reflection profiles to regional bathymetry, or for that matter, to the original site-defining seismic profile. New *Melville* data are not provided in 451-Add2. It is recognized that the proponents had just barely enough time after return of *Melville* cruise to update their drilling proposal by the July 1 deadline.

  Melville SCS data image basement, but not cleanly so. Basement could include pre-rift and pre-Tofua arc stratigraphic sequences younger than basement.

  Seabeam-gridded bathymetric data are good. Sidescan results difficult to interpret and not very useful until processed better. This is not a critical issue 3.5 kHz data provided by *Lee* cruise; geopotential data provided by Melville and Lee cruises.

- **SITE TONG-02A:** Site is at inner or western edge of forearc terrace section seaward of Eua island. Purpose of site is to examine record of vertical tectonism and basement rock type and origin.

  + **Site Defining MCS Data:** (*Lee* 82-3): Location of MSCprofile not shown on regional bathymetric base. Presumably line 82-3 is along *Melville* line 6. MCS data exist in migrated form, but could benefit from more processesing to better resolve basement and dip of older sedimentary deposits.

  + ***Melville* Data:** Site-crossing SCS profiles not definitively located on regional bathymetric maps in full DB-7080 Boomerang-8 cruise report. The profiles do not clearly image basement, but it's at about 0.6 seconds below bottom. Migrating the data would be a good idea. Science targets should be reachable as described. Good Seabeam and Seabeam-based grided bathymetric information. Sidescan data in the full DB-7080 Boomerang-8 cruise report is of limited interpretability in present form.

- **SITE TONG-03A:** This site is intended to control the inward side of the central transect, which cross the ridge crest just north of Tongatapu. Purpose of the site is to sample east-dipping platform sequence and underlying basement for history of vertical tectonism and basement rock origin to fill-in the incomplete section exposed on nearby Eua Island.

  + **Site Defining MCS Data:** The Industry MCS line used to located this drilling site is difficult to interpret. But basement seems to be imaged overlain by seaward dipping beds. The line of section is not included on bathymetric index of report 451-Add2, nor is in included in the parent or full DB-7080 Boomerang-8 cruise report.

  + ***Melville* Data**: Site-crossing SCS profiles are not definitively located on regional bathymetric maps provided in the full DB-7080 Boomerang-8 cruise report. In this report the strike lines and dip lines, as identified, appear to be reversed. These profiles do not clearly image basement, but it's at about 0.4-0.5 sec below bottom. Migrating and filtering the data (lower cut) ought to be tried to unmuddy the record, gain some s/n, and clarify downsection relations. Science targets should be reachable as described. Good Seabeam and Seabeam-based grided bathymetric information. Sidescan imagery in the full DB-7080 Boomerang-8 cruise report of limited interpretative value until fully processed. No 3.5 kHz data available, although cruise report incorrectly notes that R/V Lee 3.5 records were over drilling site..

- **SITE TONG-04B:** Similar to 03A, site O4B is intended to control the inward site of a forearc transect, in this situation the northern transect. Site is located just to east of the Tofua arc on the crest of the northern platform. Purpose is to gather information on the history of Tofua arc activity and the history of vertical tectonism of the northern platform and nature and origin its underlying basement rock..

  + **Site Defining MCS Data**: The site-defining MCS section is identified as a sector of line 82-3, which is a designator for *Lee* 82 MCS data. But site TONGA-02 is located along line 82-3, which crosses the southern platform well to the south of TONG 04B. The northern platform was surveyed in 1984 with 6-fold MCS coverage by the R/V *Natsushima* i. So the source for the site defining seismic profile is the *Natsushima* , probably line L-20 based on the information on summary form for site 04B provided in the full *Melville* cruise report. The location of the *Nasushima* profile is not shown on the regional bathymetric base, nor the directions of its left and right ends. Site-defining profile should be migrated and possibly better deconvolved to improve resolution of basement and dip of older sedimentary deposits.

  + ***Melville* Data**: Site-crossing SCS profiles are not definitively located on regional bathymetric maps provided in the full DB-7080 Boomerang-8 cruise report. The seismic section themselves are not provided in the derivative 451-Add2 report. These profiles image basement at about 0.6-0.7 sec below bottom. The younger part of the stratigraphic

record is missing, presumably eroded away (?), at the selected site location. Possibly much of the history of Tofua arc volcanism will be absent. Migrating and filtering the data (lower cut) ought to be tried to unmuddy the record, gain some s/n, and clarify downsection relations. Basement targets should be reachable as described. Good Seabeam and Seabeam-based grided bathymetric information. Sidescan imagery of limited interpretative value until fully processed. No 3.5 kHz data were collected on *Melville* cruise, hence they are unavailable.

- **SITE TONG 06B:** Site O6B is located within a small perched basin along the crest of the Tonga Ridge near its northernmost end. The site is just east of the Tofua arc. Purpose of site is to sample pre-rift and post-rift volcanic sediments to assess history of vertical tectonism, and nature and origin of underlying basement, in particular to determine if boninitic basement rocks are present beneath a datable stratigraphic sequence.

  + **Site Defining MCS Data**: The line of MCS profile used to select the original drilling site not shown in the 541-Add2 report. The MSC profile shown is identified as L-23, a *Natsushima* 6-fold profile. Drilling targets are adequately revealed.

  + ***Melville* Data**: New seismic lines crossing the site are not provided in 541-ADD2. Those displayed in the full DB-7080 Boomerang-8 cruise report are not definitely positioned on bathymetric bases provided. The sections reveal interesting stratigraphic relations consistent with a complex subsidence and infilling history. Basement appears to have a layered fabric. Good Seabeam and Seabeam-based grided bathymetric information. Sidescan imagery of limited interpretative value until fully processed. Sidescan imagery of limited interpretative value until fully processed. No 3.5 kHz data.

- **SITE TONG 08A**: Site 08A is intended to be a reference or "benchmark"site to assess the history of arc volcanism and outer forearc vertical tectonism prior to the imposition of the accelerated tectonic effects of the subduction of the Louisville Ridge. The site is located south of the southward migrating collision zone along the inner part of the Tonga forearc terrace..

  + **Site Defining MCS Data:** The defining profile is a section of MCS data ascribed to a *Melville* dual-channel record. However, this seismic section is part of the Lee-84 MCS data set. The section to be drilled is adequately imaged, but the usefulness of the MCS section would benefit from migration and an improved deconvolution filter, even if one has already been applied.

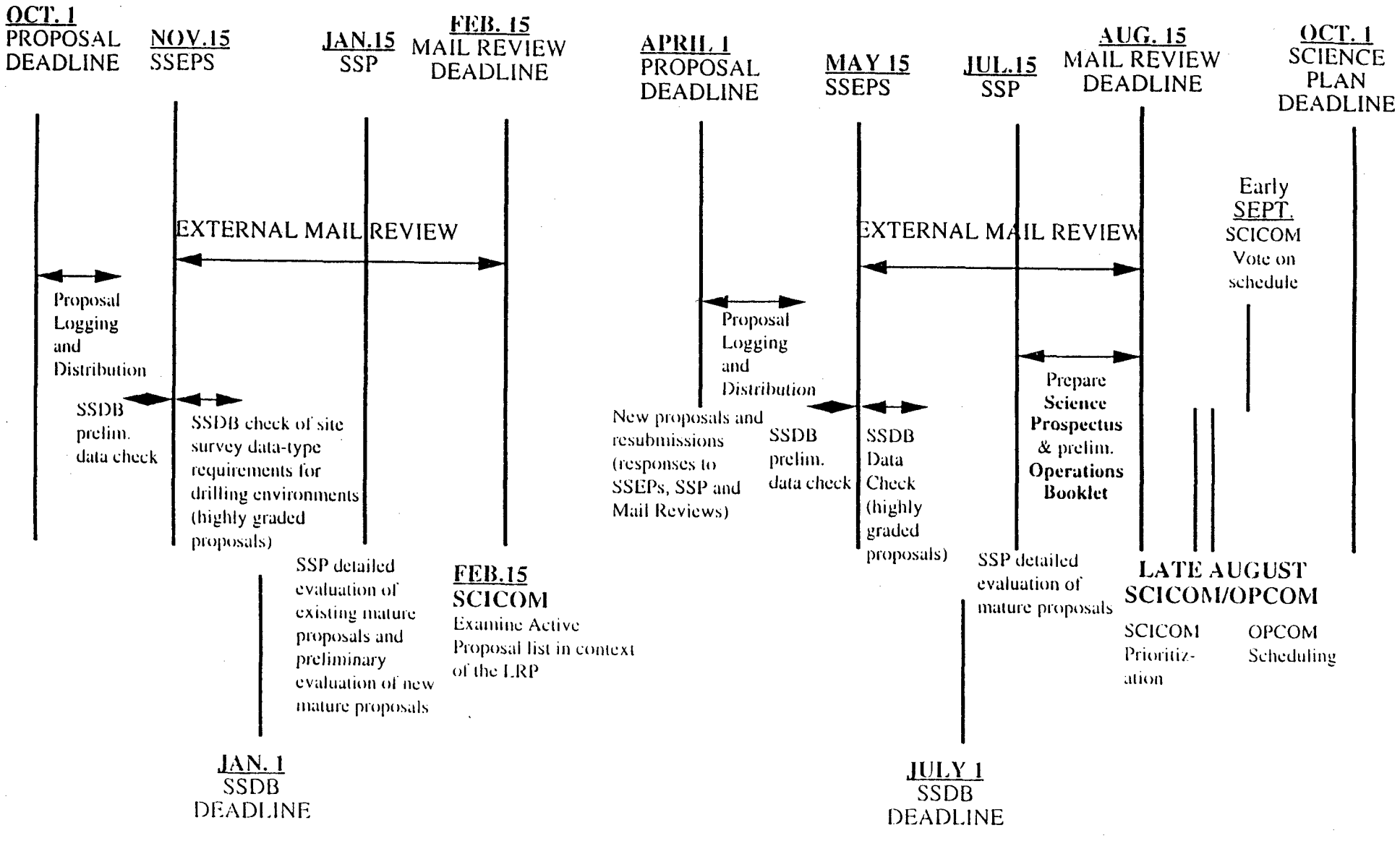
  Cruise report and 451-ADD2 state that thickness of the sedimentary section is approximately 430 m. But both MCS and SCS profiles reveal that the thickness of the sedimentary section is approximately 1.0 sec TWT, which corresponds to a minimum thickness of 800-900 m. Calculated drilling time is thus greatly underestimated on 541-ADD2 and in the full Bommerang-8 cruise report.

  + **Melville Data**: The new seismic profiles image the section to be drilled including basement contact. But migration work would be beneficial and probably so the application of lower-cut filtering. Good Seabeam and Seabeam-based grided bathymetric information. Sidescan imagery of limited interpretative value until fully processed. Sidescan imagery of limited interpretative value until fully processed. No 3.5 kHz data from the Melville cruise, but 3.5 kHz profiles were gathered along the Lee-84 MCS line .

- **SITE TONG-10A:** Site TONG 10A is the outer forearc site for the northern drilling transect. Intended to provide information on the history of Tofua arc activity and the history of vertical tectonism of the outer forearc platform and the nature and origin of its basement rock.

  + **Site Defining *Melville* Data:** Site-crossing SCS profile not definitively located on regional bathymetric map provided in 451-Add2, or in the full report of the Melville cruise. Drilling site to meet objectives moved to *Melville* line from those positioned along *Natsushima* profiles.These profiles image basement at about 0.3-0.4 sec below bottom within a subbasin of a forearc terrace. Migrating and filtering the data (lower cut) ought to be tried to unmuddy the record, gain some s/n, and clarify downsection relations. Basement targets should be reachable as described. Good Seabeam bathymetry and Seabeam-based grided bathymetric information. Sidescan imagery of limited interpretative value until fully processed. No 3.5 kHz profiles available.

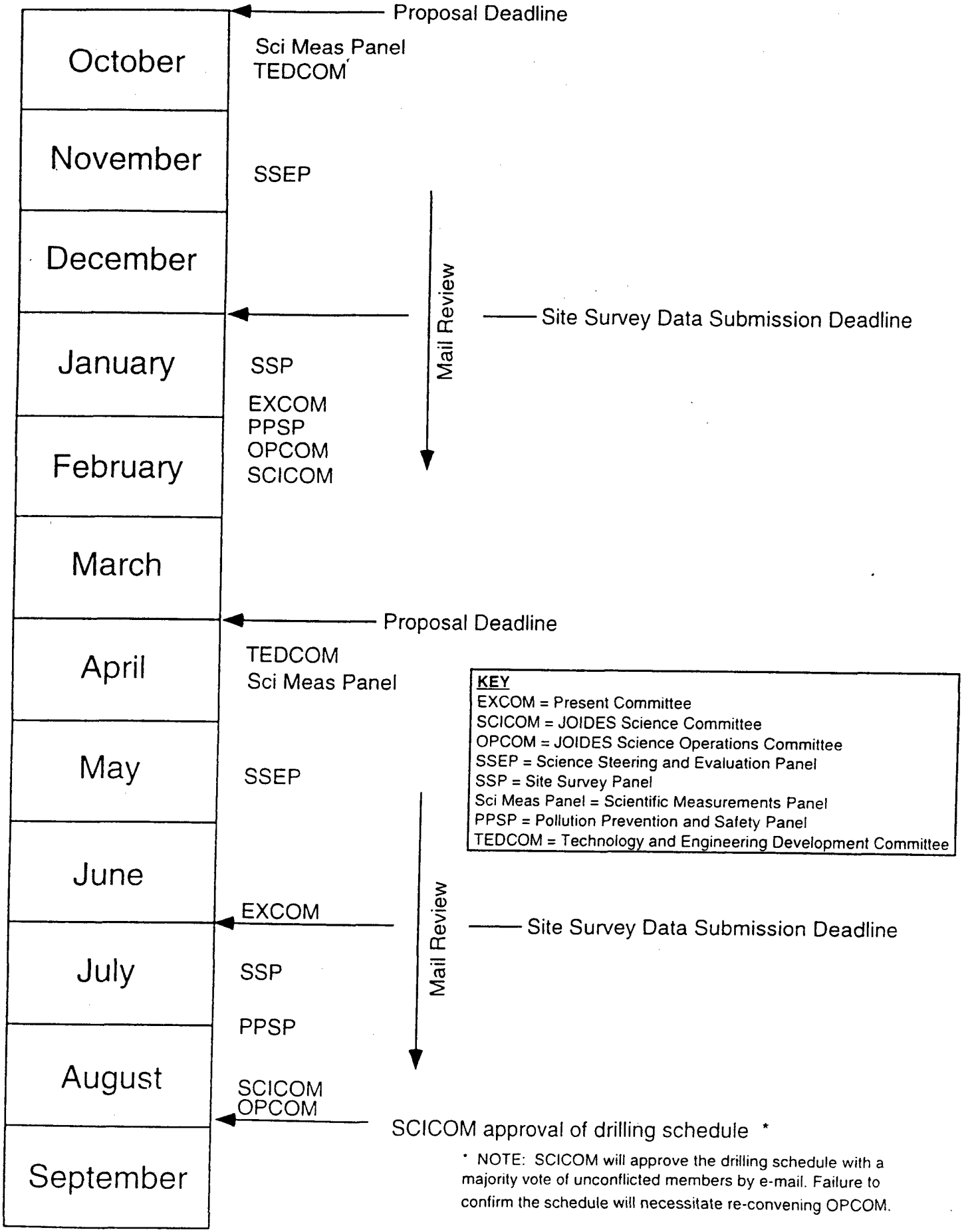
Appendix C



PROPOSAL TIMELINE FOR ONE YEAR

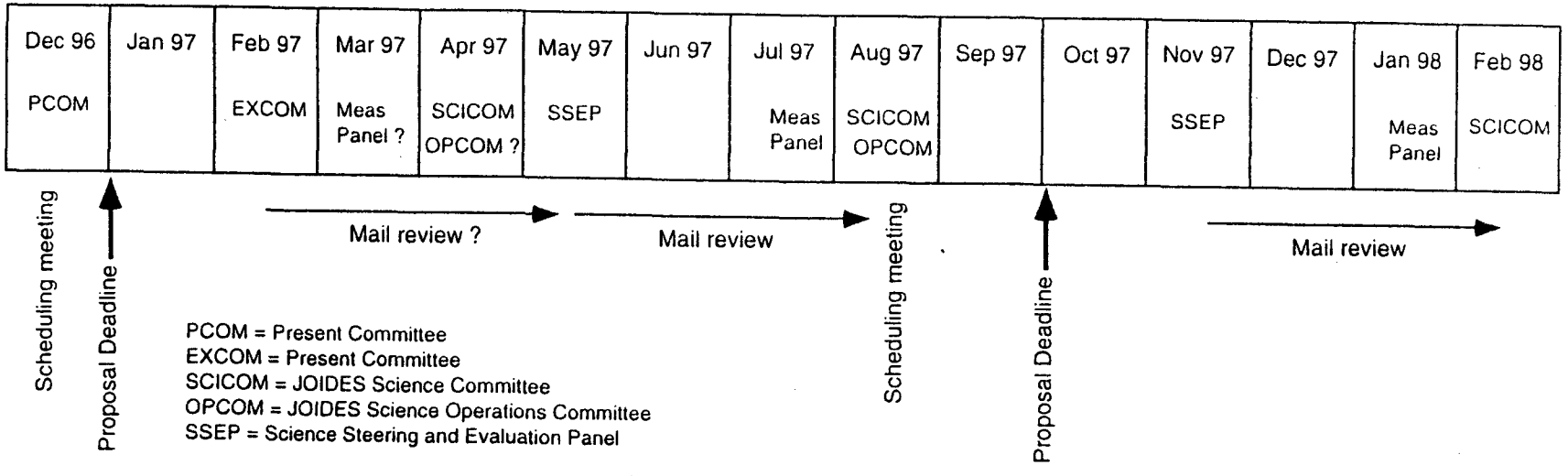
NOTES: OCT 1 = Primary proposal deadline
Each proposal has only one shot at external mail review

Annual meeting timetable, and submission deadlines for the proposed *NEW* JOIDES Advisory Structure



* NOTE: SCICOM will approve the drilling schedule with a majority vote of unconflicted members by e-mail. Failure to confirm the schedule will necessitate re-convening OPCOM.

Proposed Implementation timetable for NEW JOIDES Advisory Structure,
effective at EXCOM ratification , mid-February 1997*.



Dec 96 PCOM. As at present, main business is the JOIDES Resolution schedule for 1998.
Apr 97 SCICOM. Main business will be to form OPCOM, the SSEPs and PPGs, to evaluate what active proposals are in the system, and which LRP themes require proactive development. Determination of what business items will be passed to OPCOM.
Apr 97 OPCOM. If required, will continue the implementation and general oversight role of PCOM.
May 97 SSEPs. First meetings of steering and review panels, determination of which mature proposals warrant external review.
Aug 97 SCICOM. Ranking of proposals and long term science and technology planning.
Aug 97 OPCOM. Formulation of a drilling schedule for the JOIDES Resoluition from 1999 onward, depending upon logistical constraints.
Nov 97 SSEPs. Second meeting of steering and review panels, consideration and comment upon previous external review and determination of which other mature proposals warrant external review.

TO BE RESOLVED

*** Should EXCOM be asked to hold a special meeting in November 1996 to ratify the proposed new structure and thus allow more time for membership of the SCICOM to be determined ?**

Feb 97 Mail Review. This will allow the SSEPs to evaluate, at their May meetings, the comments of external reviewers and put them into context, along with the Panel's own comments if the panel decides that the proposal should be passed to SCICOM for ranking. This would allow the August SCICOM to have a full suite of proposals to consider.

Some of the questions that remain for PCOM to consider in August include:

Should there be a mail review in February ?
If so, which proposals should be sent for mail review in February ?
Who would determine the reviewers ?
Is it necessary to have a Scientific Measurements Panel meeting in March 97 ?