

FINAL

JOIDES SITE SURVEY PANEL
MINUTES

April 13-15, 1994
IFREMER
Brest, France

- Members: Kastens, Kim (L-DEO, USA) Chair
Farre, John (Exxon, USA)
Mountain, Greg (L-DEO, USA)
Peterson, Larry (RSMAS, USA)
Sibuet, Jean-Claude (IFREMER, France)
Srivastava, Shiri (Atlantic Geoscience Center, Canada)
Tokuyama, Hidekazu (ORI, Japan)
- Alternate: Lykke-Andersen, Holgar (Univ of Aarhus, Denmark)
- Liaisons: Blum, Peter (TAMU)
Collins, Bill (JOIDES Office)
Kidd, Robert (PCOM)
Shor, Alexander (NSF)
Quoidbach, Daniel (ODP Data Bank)
- Apologies: Hinz, Karl (BGR, Germany)
Scrutton, Roger (Univ. of Edinburgh, UK)
Toomey, Douglas (Univ. of Oregon, USA)
Trehu, Anne (Oregon State University, USA)
Ball, Mahlon (PPSP)

AGENDA
ODP Site Survey Panel Meeting
April 13-15, 1994
INFREMER, Brest, France

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- 2.3 JOIDES Office (Collins)
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5. POTENTIAL FUTURE DRILLING: TECP

- 5.1 NEW: West Woodlark Basin (447) (Farre)
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- 5.3 NEW: Taiwan Arc/continent Collision (450) (Sibuet)
- 5.4 NARM Nonvolcanic-II: Return to Iberia (NARM-Add3) (Mountain)
- 5.5 NEW: Mariana Back-arc Basin (442) (Tokuyama)
- 5.6 North Australia Margin (340-rev) (Kidd)
- 5.7 NARM Volcanic-II: E. Greenland transect extension (NARM-add2) (Kidd)

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- 6.1 New Jersey Sealevel II (348add/letter) (Kastens)
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8. POTENTIAL FUTURE DRILLING: OHP

- 8.1 Caribbean OHP (see under item 7.1)
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- 8.4 NEW: Southwest Pacific Gateway (441) (Peterson)
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ODP Site Survey Panel
April 13-15, 1994
Executive Summary

The ODP Site Survey Panel met at Ifremer, in Brest, France, on April 13-15, 1994. The goals of the meeting were (1) to evaluate the site survey readiness of proposals that were highly ranked at the spring thematic panel meetings, (2) to advise proponents of these proposals about data that they need to acquire and submit the Data Bank in order to be considered for scheduling, (3) to identify potential safety problems among this group of proposals, (4) to evaluate the site survey readiness of legs scheduled for drilling, and (5) to assess any site survey issues arising from recently drilled legs.

Our deliberations resulted in the following recommendations to the Planning Committee:

SSP recommendation #1: Shallow water hazards survey funding:

SSP is concerned that in the present austere budgetary climate, PCOM's recent decision to fund shallow water hazard surveys out of co-mingled funds may mean that such surveys never happen. SSP recommends that PCOM consider permitting alternative funding scenarios, for example:

(a) co-mingled funds pay for independent expert(s) to oversee the quality of the data during acquisition and processing, and to interpret the data with respect to safety issues on behalf of TAMU and SEDCO/BP; but

(b) the proponents raise funds from other sources to pay for ship time, data acquisition, and data processing costs.

Recommendation #2: Navigation data for VIT surveys

To emphasize the importance of accurate positioning data for VIT camera surveys, SSP recommends to PCOM that TAMU be asked to investigate ways to capture SEDCO DP (dynamic positioning) navigation data during VIT surveys, and that these data be archived in the Data Bank along with the videos themselves. Video data should be time coded in a manner that matches the navigation data, and the GPS location of all beacons should be recorded.

Explanatory Notes:

Recent experience in bare-rock settings have highlighted the value of VIT camera data for geologic mapping, as well as for local drillsite characterization and specific site location. The Site Survey Data Bank is now archiving sea floor videos collected by JOIDES Resolution. Unfortunately, the accompanying dynamic positioning (DP) data are lacking. Furthermore, we're not certain that time is recorded on the videos themselves, which if present, would provide the necessary link to the navigation. Peter Blum, through Ron Grout (Supervisor of Operations at ODP/TAMU) has begun to investigate the possibility of acquiring and archiving DP data. The main problem found thus far is access to the DP system, which is the responsibility of SEDCO/BP and is a safety issue. Answers to the following questions should be available within a few weeks:

- 1) Do DP data tapes exist for previous drilling Legs? If so, where and in what format?
- 2) Can these tapes be translated into a format suitable for scientific use?

- 3) If the tapes cannot be translated or don't exist, can a technique be developed to record DP data in either an electronic or paper format for use on future Legs?

SSP Recommendation #3: Changes in pre-cruise distribution of operations data packages (formerly known as Co-Chiefs' data packages)

SSP recommends that the name of the Co-Chiefs' data package be changed to Operations Data Package. SSP also recommends to PCOM that the Data Bank be permitted to reduce the number of data packages produced from four to three. One package would be sent directly to a Co-Chief, one would be sent by express delivery to the Co-Chiefs and Staff Scientist via the Port Agent, and one would be sent to ODP/TAMU Science Operations.

Explanatory Notes:

Currently the Site Survey Data Bank contract with JOI requires it to produce four data packages for each Leg. Two packages are sent directly to the Co-Chiefs before the cruise, and two are sent to ODP/TAMU, one to be used by Science Operations during the cruise, and the other to be carried to the ship by the Staff Scientist. As the latter package routinely goes unused onboard the *Resolution*, SSP had instructed the Data Bank to inquire whether all interested parties would support an elimination of this extra data package. Both PPSP and ODP/TAMU have indicated that having only three data packages would be acceptable to them.

With the recent growth in bulk and weight of data packages, the data packages are now routinely taken as checked baggage on airline flights, rather than as carry-on baggage as in earlier years. Sending the data as checked baggage is not seen to be any more reliable than using an express delivery company. For this reason, it is proposed that one data package be sent via express delivery to the port agent, addressed to both Co-Chiefs and the Staff Scientists. The delivery date would be far enough in advance of the portcall to allow the Data Bank to confirm delivery, and deliver a replacement package if needed. One of the remaining packages would still be sent directly to a Co-Chief, and one to ODP/TAMU Science Operations. The two shipboard packages would be taken home by the two Co-Chiefs at the conclusion of the Leg.

In addition, we formulated the following action items for SSP members and liaisons:

Action Item #1: ODP Data Bank Manager Quoidbach and SSP industry member Farre to draft a statement concerning commercial well data for inclusion in the Data Bank's guidelines for data submission. Comments on this draft to be solicited by email from SSP members and liaisons. Statement to be finalized in time for inclusion in the new "Guide to the Ocean Drilling Program" being published by the JOIDES Office.

Action item #2: Shor to provide to SSP Chair Kastens a copy of NSF's new policy statement concerning the obligation of investigators funded by NSF/ODP to deposit data in the ODP Data Bank. Kastens to circulate this policy statement to non-US members of SSP. Non-US panel members may, if they feel that it would be useful and appropriate within the funding structure of their own particular country, pass this statement along to program managers in their national funding agencies to consider as a model for possible adoption.

SSP Action Item #3: TAMU liaison Blum to request specifications for a sonar reflector which allows relocation of a site and which can be deployed from a site-surveying submersible.

SSP Action Item #4: For bare rock and offset drilling legs, ODP Data Bank to provide ODP/TAMU with appropriate site survey data, especially submersible video tapes, to give operations personnel the best possible idea of the physical setting of drill sites in complex bare rock environments.

Action Item #5: Data Bank manager Quoidbach to incorporate statement about format of sound velocity data into the next revision of the Data Bank's data format document.

SSP Action Item #6 Data Bank Manager Quoidbach to write to the Co-Chiefs of scheduled legs, reporting the sense of the SSP discussion and enclosing the appropriate section of the draft minutes.

SSP Action Item #7: Watchdogs to write to the lead proponent of all other programs discussed, reporting the sense of the SSP discussion and enclosing the relevant section of the SSP minutes. A copy of these letters to be sent to the ODP Data Bank.

SSP Action Item #8: SSP Chair Kastens to request permission from the JOIDES Office for a meeting at Lamont on July 13-15.

Finally, our deliberations resulted in the following consensus evaluations or decisions:

SSP Consensus #1: No site survey problems were encountered on **Leg 152, East Greenland margin**.

SSP Consensus #2: The **Leg 153 (MARK area)** data packet was not complete, as noted repeatedly by SSP before the cruise. The data included in the packet did not help to identify alternate sites. Some of the additional data brought to the ship by the Co-chiefs were used to look for alternate sites. Only two sites were defined prior to the cruise, but 5 sites were drilled during Leg 153. A larger number of sites must be identified and documented prior to the drilling leg.

SSP Consensus #3: The following **site survey requirements are crucial if hard rock drill sites in tectonically complex areas** are to be defined prior to the drilling cruise instead of located during the leg through trial and error and by using the JR for extensive survey: 1) precise navigation of submersible dive data to a degree that observed outcrops can be relocated by the drilling ship; 2) submersible-deployment of a reference beacon or sonar reflector near potential drill sites as navigation references for submersible and drill ship/string; 3) slope and sediment thickness measurement with the submersible to determine if a HRB can be deployed.

SSP Consensus #4: The site survey community is urged to consider design of **high-resolution sea floor geophysical experiments** (seismic, electromagnetic, etc.) capable of distinguishing between intact crustal blocks and volumes of pervasively fractured or brecciated material.

SSP Consensus #5: All vital data types for the **North Barbados Ridge program (Leg 156)** are in the Data Bank. Proponents are encouraged to submit missing "desirable" data types (velocity determinations) in time for inclusion in the Operation Data Package.

SSP consensus #6: The MAP portion of **VICAP/MAP (leg 157)** is ready to drill. The status of the VICAP portion has improved with the submission of CD82 MCS

and swath bathymetry, but there are still several types of vital and desirable data which need to be submitted in time for the creation of the Operations Data Package for Leg 157. The top priority of the proponents should be to submit all vital data types, including clear navigation plots annotated in units which tie it to the seismic data.

SSP consensus #7: With the addition of current meter and heat flow data, all vital and desirable data are in the data bank for the sites on the **TAG Hydrothermal mound (Leg 158)**. SSP thanks the proponents for responding to SSP's request for a backup drilling strategy, and urges them to submit the data from upcoming surveys of the Alvin and MIR relict hydrothermal zones to the Data Bank as soon as possible.

SSP Consensus #8: SSP is pleased to see that backup sites have been selected by the proponents for **[former] Leg 159, return to 735B**. SSP encourages the proponents to deposit additional navigation data which would be useful to the shipboard party in locating these sites should these sites be required to be drilled.

SSP Consensus #9: All vital data for **Equatorial Atlantic Transform Fault drilling (rescheduled leg 159)** is in the Data Bank.

SSP Consensus #10: SSP's evaluation **Mediterranean Ridges** remains unchanged since the November '93 SSP meeting: the Olimpi mud volcano site, the Ionian transect, and Erasthenes transect (except ESM-4) have complete or nearly complete data packages. SSP recommends that the Co-Chiefs develop interpretative maps/sections to integrate results and interpretations from recently collected data with the proposed drilling strategy (mainly at Erasthenes transect) for upcoming discussions with PPSP.

SSP Consensus #11: The data package for Leg 162, **Western Mediterranean**, is in reasonably good shape, lacking only a few small items of existing data. SSP hopes that the CoChiefs may be able to identify a more favorable location than MedSap7B (reoccupation of DSDP 121) to recover the Plio-Pleistocene paleoceanographic history of the Alboran Sea, because the section at DSDP 121 is known to contain a large hiatus.

SSP Consensus #12: The majority of the sites for the **NAAGII drilling (rescheduled leg 162)** have adequate data in the data bank, but a number of specific items remain outstanding. SSP recommends that additional data, if existing, be supplied to the DB for contingency purpose for drilling in the Northern latitudes. SSP recommends the CoChiefs/proponents considering moving two of the sites from the proposed locations to areas that exhibit less sediment disturbance or less safety risk.

SSP Consensus #13: No new data has been submitted in support of the **Gas Hydrate** program since the last SSP meeting, at which time we reviewed a strong and nearly-complete data package. We understand that a recent coring/side-looking sonar cruise on the diapir area was successful, and we look forward to seeing these new data, as well as a promised proposal addendum presenting new site(s) on the Blake Ridge Diapir.

SSP Consensus #14: SSP recognizes that a large volume of data exist to support drilling in the **West Woodlark Basin (447)**, although no data package has yet been submitted to the Data Bank. One possible critical issue may be the need for visual data in support of bare-rock drilling at site ACE-3.

SSP Consensus #15: The data set in the Data Bank is satisfactory for the structural objectives of the **Costa Rica Accretionary Wedge (400 rev/add2)** proposal. Heat flow measurements, cores and submersible observations have been collected in Feb. 1994, but not yet deposited; it is likely that these new data will complete the data requirements for the fluid objectives.

SSP consensus #16: Most of the existing seismic data for the **Taiwan Arc/Continent collision area (450)** are 4 or 6 channels data, rather than the grid of

MCS data considered vital for active margin sites. SSP understands that there is a possibility to collect the requisite data from R/V M. Ewing or Rig Seismic. SSP feels that this deep seismic survey is essential to get a reasonable picture of the whole geodynamic system from the subduction to the collision and to better locate the final drilling targets.

SSP Consensus #17: SSP determines that all necessary data types are available for four of the six sites proposed for *NARM-NV-Add3 (return to Iberia)*. IAP-6A lacks crossing seismic lines; GAL-1 needs to be reviewed by SSP.

SSP Consensus #18: A reasonable quantity of a variety of data types appears to exist around the proposed *Northern Marianas Rift (442)* sites. It's not clear from the small-scale photocopies in the proposal whether the existing seismic data are of adequate quality to define the basement targets.

SSP Consensus #19: The *North Australia Margin proposal (340-rev)* remains a preliminary proposal with only site indications and no specific locations. SSP encourages the proponents to submit a mature proposal based upon data that was planned to be collected in 1993. SSP again refers the proponents to the Survey Guidelines for Active Margin sites paying particular attention to the need for intersecting seismic lines in this tectonically complex setting; to the various types of high resolution data required; to the need for heat flow data, and to the need for core data where reentry is likely. The proponents are advised that, in addition to SSP's requirements, they will almost certainly be expected to eventually supply, for Safety review, maps of commercial well locations, well logs and core descriptions from those holes, ties through velocity determinations to the nearest relevant commercial wells, and heat flow data with which to assess potential hydrocarbon maturation.

SSP consensus #20: Most of the geophysical data relating to the science proposed for *NARM-VII East Greenland Extension (NARM-Add2)* is in the Databank. However, the proponents note that the sediment cover is likely to be very thin to absent, and they appear to be uncertain whether hard-rock guidebases or re-entry will be required. Because of the operational, staffing and budgetary ramifications of guidebase versus non-guidebase drilling, the proponents are asked to document in advance of the drilling leg either (a) the presence of sufficient sediment cover for unsupported spud-in and re-entry cone emplacement, or (b) the presence of outcrops suitable for guidebase emplacement.

SSP Consensus #21: Acquisition of vital (high-resolution SCS, 3.5 kHz) and possibly desirable (shallow cores) data in the region of the *Bahamas Transect* (proposal 412add2) is planned in May 1994. In an informal communication to the SSP watchdog, the proponents suggest drilling a series of three holes at three different sites through soft sediments overlying the cemented ones, in order to better understand fluid-flow processes. SSP recognizes the general validity of this approach; however, a formal proposal addendum with scientific objectives, water depths, penetrations depths, etc. will be needed before SSP can fully evaluate these newly-proposed sites.

SSP Consensus #22: A revised proposal submitted in 12/93 indicates high likelihood that a complete dataset can be assembled to support 1 full leg of *Benguela Current (354)* drilling, although lack of drilling time and/or lack of data is likely to require the elimination of some sites from the present ambitious 6 transect/15site drilling plan. While some data reside in the Data Bank, the dataset remains far from complete. Crossing high resolution and 3.5 kHz (Parasound) seismic lines and core data are generally missing. While complete datasets to support NAB, MAB, SAB, and NCB transects appear to exist and be of high quality, SSP urges the proponents to identify additional data to support the Walvis Ridge and Southern Cape Basin transects.

SSP Consensus #23: The *Caribbean* workshop participants are commended for pooling their resources and making headway towards a coherent Caribbean drilling plan. SSP looks forward to reviewing a more complete data package in the context of thematically-focused proposals at its next meeting. A preliminary assessment suggests that an adequate data package can probably be assembled for the basement objectives; it is not clear at this time whether all of the sediment-objective sites can be adequately documented with existing data.

SSP Consensus #24: Most necessary site survey data for *Sedimented Ridges II (SR-Rev2)* remains in the package prepared for Leg 139. There may be a possibility to collect additional submersible data in this region prior to drilling, which would further strengthen the data package.

SSP Consensus #25: SSP is pleased to see such a well-designed and well-documented experiment to study hydrothermal circulation in the oceanic crust on the *Eastern Flank of the Juan de Fuca Ridge (440--)*. Judging from the site summary forms and the details given in the proposal it appears that requisite data seem to exist for each transect, although no data package has yet been submitted. Additional heat flow, reflection, refraction and submersible data to be collected in 1995 will greatly strengthen the understanding of the area, but are not prerequisite to scheduling or drilling.

SSP Consensus #26: For the array of shallow holes into oceanic crust outlined in proposal *426 (Australia-Antarctic Discordance)*, SSP will need seismic data of sufficient data to accurately define the depth to basement, plus magnetic anomaly data of sufficient quality to lay out an array of holes tied to specific flowlines and isochrons. The proposed complicated if/then drilling strategy means that a larger than usual number of potential sites must be identified and documented.

SSP Consensus #27: The *Voring margin* data package lacks critical items: (a) no seismic data is in the Data Bank for site VM-5, although one line exists, (b) basement is not identifiable with confidence on the seismic line across VM-6, and (c) neither VM-5 or VM-6 has crossing seismic lines or a grid of seismic lines, although the structure can be expected to be three-dimension in this marginal setting.

SSP Consensus #28: 3.5 kHz data have been submitted since last meeting, but the site survey package for *California Margin (386-Rev3,422-Rev,386-add2)* still remains incomplete. New data will be acquired in 1994 and 1995.

SSP Consensus #29: New data still need to be acquired for an adequate site survey data package for the *Sub-SAT Transect (proposal #430)*, and proponents are currently writing an NSF proposal to obtain necessary funding. SSP does not anticipate that an adequate data package can be assembled in time for FY'96 scheduling.

SSP Consensus #30: Proponents of the *SW Pacific Gateway proposal (441)* have shown that a large body of potential site survey data exist to support the proposed drilling in the New Zealand Plateau region. SSP encourages the proponents to assemble and submit a site survey data package to the ODP Site Survey Data Bank, in parallel with selection of the subset of sites requested by OHP for a one-leg program. Information on deep water current velocities to be expected in the region is requested. SSP reminds the proponents that data from commercial wells in the region will eventually be needed for safety review.

SSP Consensus #31: The data package for *NW Atlantic Sediment Drifts (404)* is still sparse. We anticipate receiving additional data for the Blake Outer Ridge sites from a Nov. '93 cruise. At this meeting we saw some data from the Bermuda Rise site (BR-1), but problems remain. No alternate site to BR-1 has been designated, and with only a portion of IFP profile BER-1 in the Data Bank, drilling options are limited.

ODP Site Survey Panel
April 13-15, 1994
IFREMER, Brest, France
Minutes

1. PRELIMINARY MATTERS

Note that these minutes are arranged in a logical order for ease of reading, and do not reflect the exact order in which items were discussed at the meeting.

1.1 Introduction (Kastens) & Logistics (Sibuet)

SSP Chair Kastens introduced new panel members Larry Peterson (USA), and H. Tokuyama (Japan), new liaison A. Shor (NSF) and ESF alternate H. Lykke-Anderson. Host Sibuet explained arrangements for meals, communications, transportation and field trip.

1.2 Action items from November 1993 Lamont meeting

(November Action Item #1): Collins reported that a new edition of the "Guide to the ODP" will be published as a special blue edition of the JOIDES Journal in the summer. In this special edition, proponents will be advised that the "alternate" position of a proposed site on the ODP Site Summary Forms can be a range of positions, as for example a range of shotpoints along a seismic line.

(November Action Item #2): Quoidbach reported that the Data Bank has collected all watchdog letters and is sending them to the JOIDES Office.

(November Action Item #3): Quoidbach reported that he has made a request to ODP/TAMU to have any video tapes made using the Resolution's drillstring camera archived at the Data Bank, along with the navigation data for each survey. Following IHP consultation, ODP/TAMU agreed to archive all survey videos at the Data Bank. A shipment of videotapes was received this spring for all surveys through Leg 1XX. Unfortunately, there does not seem to be any navigation data for these surveys, other than the standard cruise navigation. The Data Bank will stay in contact with ODP/TAMU to ensure that future tapes and navigation are also submitted for archiving.

(November Action Item #4): Blum reported on the results of his inquiries into the possibility of digital logging of the precise, bottom-referenced, DP navigation during video surveys conducted with the Resolution VIT camera. Technically, this is feasible. However, financial, jurisdictional, logistical, technical and safety problems exist. With respect to DP data from past legs, it is not known if the DP data still exist in digital form, and if they do exist they must be translated into a format usable by the scientific community. It is not clear whether the videotapes and the digital DP data are time-tagged in a way that will allow them to be correlated. Concerning future legs, the DP system is under the control of SEDCO, not the science operator, and tapping into that data stream or in any way compromising the DP system could become a safety issue. Blum will continue his discussions of these issues with ODP/TAMU engineering personnel, and expects to have answers to several of the unknown questions shortly. However, recognizing that coping with these knotty intertwined problems exceeds SSP's jurisdiction, SSP drafted the following recommendation to PCOM:

Recommendation #1, concerning navigation data for VIT surveys: To emphasize the importance of accurate positioning data for VIT camera surveys, SSP recommends to PCOM that TAMU be asked to investigate ways to capture SEDCO DP (dynamic positioning) navigation data during VIT surveys, and that these data be archived in the Data Bank

along with the videos themselves. Video data should be time coded in a manner that matches the navigation data, and the GPS location of all beacons should be recorded.

Explanatory Notes: Recent experience in bare-rock settings have highlighted the value of VIT camera data for geologic mapping, as well as for local drillsite characterization and specific site location. The Site Survey Data Bank is now archiving sea floor videos collected by JOIDES Resolution. Unfortunately, the accompanying dynamic positioning (DP) data are lacking. Furthermore, we're not certain that time is recorded on the videos themselves, which if present, would provide the necessary link to the navigation. Peter Blum, through Ron Grout (Supervisor of Operations at ODP/TAMU) has begun to investigate the possibility of acquiring and archiving DP data. The main problem found thus far is access to the DP system, which is the responsibility of SEDCO/BP and is a safety issue. Answers to the following questions should be available within a few weeks: (1) Do DP data tapes exist for previous drilling Legs? If so, where and in what format? (2) Can these tapes be translated into a format suitable for scientific use? (3) If the tapes cannot be translated or don't exist, can a technique be developed to record DP data in either an electronic or paper format for use on future Legs?

(November Action Item #5) In email discussion between the November and April meetings, SSP agreed that, in future, the Data Bank Manager rather than the SSP watchdog shall be responsible for all communications about data-related issues (including the outcome of SSP meetings) for scheduled legs for which Co-Chiefs have been named. This decision overrides November action item #5, which had called for Collins to provide contact information about named Co-Chiefs, and for watchdogs to communicate with Co-Chiefs as well as proponents.

1.3 Charge and procedures for this meeting (Kastens)

SSP Chair Kastens 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, (2) to advise proponents of these proposals about data that they need to acquire and submit the Data Bank in order to be considered for scheduling, (3) to identify potential safety problems among this group of proposals, (4) to evaluate the site survey readiness of legs scheduled for drilling, and (5) to assess any site survey issues arising from recently drilled legs.

Some slight modifications have been made to SSP procedures, effective this meeting, with the goals of streamlining procedures, reducing the work load on watchdogs, and allowing more time for data examination. First, new watchdog assignments were agreed upon in advance by email and new proposals were mailed to watchdogs by courier in advance of the meeting. Second, the TAMU liaison (Peter Blum) has taken responsibility for preparing the minutes write-up of site survey implications of recently drilled legs, in consultation with the SSP watchdog. Third, ODP Data Bank manager Dan Quoidbach, has taken responsibility for communicating the results of SSP discussions with the Co-Chief Scientists of scheduled legs, in consultation with the SSP watchdog.

1.4 New Watchdog Assignments (Kastens)

The following new proposals have been assigned permanent SSP watchdogs, as follows: West Woodlark Basin (447), Trehu; Taiwan Arc/cont. collision (450), Sibuet; Mariana Back-arc basin (442), Tokuyama; East Juan de Fuca Hydrothermal (440), Srivastava; Australia-Antarctic Discordance (426), Toomey; Southwest Pacific Gateway (441), Peterson. In the absence of several panel members, acting watchdogs were recruited for the following programs: West Woodlark Basin (447), Farre; Costa Rica Acc. Wedge (400) and California Margin (386/422), Lykke-Anderson; Australia-Antarctic Discordance (426), Kastens; North Australia Margin (340) and NARM-VII, Kidd. The

historical and present watchdog assignments for each program are summarized in Appendix A.

2. REPORTS

2.1 PANCH/Drillopts/PCOM (Kidd/Kastens)

The prime aim of the PCOM Annual meeting in Miami (Nov/Dec'94) was scheduling for US FY'95 but other major items included prioritisation of budget for fiscal years 1994-95, revision of the White Papers drafted by the Thematic Panels, finalizing PCOM's response to the ASRC Report on the JOIDES Advisory Structure, and long-term planning towards the post-1998 phase when we expect to be considering a multi-platform operation.

Prior to PCOM there was the annual meeting of Panel Chairs (PANCH) and, for the first time a meeting of a group known as DRILLOPS, including thematic panel, SSP and PPSP Chairs and representatives of the Operators charged with synthesizing the various scientific and operational input to the logistics of a FY'95 schedule and providing a number of options for later PCOM consideration. Kastens commented on her input for SSP to PANCHM and recommendations made to PCOM, one of which resulted in PCOM's endorsement of SSP's request that backup sites be required for all prime sites on scheduled legs. Kastens was uncertain whether DRILLOPS accomplished its intended role, since PCOM revisited many of the issues discussed by DRILLOPS, and then finally decided upon a FY'95 schedule that differed from any of the options proposed by DRILLOPS. Kidd commented that he thought the DRILLOPS pre-review ensured more thorough review of the logistics than in previous years and that PCOM spent less, but more informed time, on scheduling. He thought it a success which will work smoother in the next iteration. Collins pointed out that as a result of the DRILLOPS exercise, there were no surprises and no major issues overlooked in the PCOM scheduling process. Kastens commented that regardless of the value of DRILLOPS to PCOM, the panel chairs had certainly gained a deeper appreciation of the other panels' concerns and points-of-view from their participation in the DRILLOPS process.

Kidd presented the current schedule through to the DCS (Vema FZ) Leg 165 in Jan-Feb 1996, commenting upon the combination of three Mediterranean proposals to comprise Legs 161 and 162, and the continuing uncertainty over the scheduled refit in South Africa between Legs 158 (TAG) and 159 (735B re-visit).

Kidd highlighted PCOM's consensus which put responsibility for shallow water hazard surveys on the TAMU operator, in the light of no funding likely becoming available from co-mingled funds in the foreseeable future. PCOM will be revisiting this in Cardiff and Kidd sought SSP's views on this issue. After a lengthy discussion it was concluded that SSP should at this time reiterate its Dec'94 comments to PCOM that the flexibility should exist for academic investigators to seek funding to carry out these specialized surveys, recognizing that TAMU would contract independent expertise to analyze the data from an operations and liability standpoint. SSP had also recommended that standard survey data in support of the science of drilling at those locations go through the regular SSP and thematic panel reviews from which the necessity for hazard surveys would be recognized, i.e. the two-stage process recommended to PCOM by the SSP Chair.

SSP recommendation #2, concerning shallow water hazards survey funding: SSP is concerned that in the present austere budgetary climate, PCOM's recent decision to fund shallow water hazard surveys out of co-mingled funds may mean that such surveys never happen. SSP recommends that PCOM consider permitting alternative funding scenarios, for example: (a) co-mingled funds pay for independent expert(s) to oversee the quality of the data during acquisition and

processing, and to interpret the data with respect to safety issues on behalf of TAMU and SEDCO/BP; but (b) the proponents raise funds from other sources to pay for ship time, data acquisition, and data processing costs.

Other PCOM items of interest to SSP were: (a) the endorsement of the NANSEN group's feasibility study for a polar drilling platform; (b) the assignment of responsibility for providing time for VSP experiments on legs to their co-chiefs; (c) the major funding prioritization given to the computer upgrade and the DCS and the resultant effect on the operations budgets; (d) the acceptance by EXCOM of PCOM's stance against the ASRC recommendation to change drastically the role of SSP; (e) the request to NARM non-volcanic Iberia proponents to bring forward a new synthesis and strategy for this area before consideration of further drilling there; and (f) PCOM's declaration of thanks from JOIDES to Carl Brenner for his outstanding contribution to scientific ocean drilling.

2.2 PPSP (Quoidbach)

Quoidbach reported on the recent Pollution Prevention and Safety Panel meeting, held 24-25 March 1994 in Bridgetown, Barbados, Lesser Antilles. The Safety Panel reviewed Legs 157 (VICAP/MAP), 158 (TAG), 159 (Return to 735B), and 160 (Equatorial Transform Margin) without significant problems. Both the Leg 158 and 159 Co-Chiefs had responded to SSP's suggestion for backup sites in their Safety Packages, and these sites were also approved by PPSP. Leg 158 added backup sites in the Alvin and MIR relict hydrothermal zones near the active TAG mound, while Leg 159 added two backup sites in sediment ponds on the conjugate margin of the fracture zone from Site 735. Problems with the Equatorial Atlantic Transform Margin data package identified at the pre-review (inadequate velocity determinations, insufficient information on commercial wells) had been remedied by the Co-Chiefs.

Additionally, PPSP pre-reviewed Med I sites on the Eratosthenese Seamount and the Napoli Mud Volcano. PPSP noted that much work needs to be done by the Co-Chiefs of this Leg in order to shepherd these sites through a formal safety review.

PPSP also revisited Leg 156 (N. Barbados Accretionary Prism) due to plans to perform Logging While Drilling (LWD) at sites NBR-1, 2, and 3. Use of the LWD tools precludes core recovery during drilling, thus ruling out the monitoring of the cores for hydrocarbons. The safety panel agreed that this procedure was safe at sites NBR1 and 2, as both of these locations had been cored previously. The safety panel had reservations about using this technique at NBR3, a site which is near previously drilled sites, but which has not been drilled. PPSP requested additional information from Tom Shipley and, following additional discussions, approved the use of LWD at NBR3 by a vote of 4 to 1 with one abstention.

The report on the safety review of the Equatorial Atlantic Transform margin sites sparked an SSP discussion of the general need for information about commercial wells in the vicinity of proposed drillsites. This is something that PPSP always wants, and something that proponents sometimes have trouble obtaining even when it does exist. Because information about commercial wells is primarily a safety need, not a science need, it does not seem appropriate for SSP to require this information from all proponents at the SSP-review stage. Nonetheless, we recognize a need to alert proponents to the eventual need for commercial well information with sufficiently long lead time that they can cultivate the necessary contacts to obtain this information.

Action Item #1: ODP Data Bank Manager Quoidbach and SSP industry member Farre to draft a statement concerning commercial well data for inclusion in the Data Bank's guidelines for data submission. Comments on this draft to be solicited by email from SSP members and liaisons.

Statement to be finalized in time for inclusion in the new "Guide to the Ocean Drilling Program" being published by the JOIDES Office.

2.3 JOIDES Office (Collins)

Collins reported on the activities of the JOIDES Office. Of note was the total of fifty proposals and letters of intent received at the JOIDES Office for the January 1, 1994 proposal deadline. He reported that the Thematic panels had met and produced the Spring ranking. A brief summary of the STA/JAMSTEC/EXCOM Ocean Drilling in the 21st Century (OD21) Workshop in Kyoto was presented and the status of the Canadian ODP membership was outlined. Collins reported that a special issue of the JOIDES Journal tentatively titled "A Guide to the Ocean Drilling Program" will be published in June and will include guidelines for the submission of ODP proposals and site survey data. Collins will work with the Data Bank to ensure that the most up-to-date information on data submission requirements is incorporated in the guidelines.

Collins presented the new criteria for SSP review of proposals which was developed at the 1993 PANCH meeting and which was to be put into effect at this meeting. The criteria were:

G. Site Survey Maturity

- G1. All required and desirable data in Data Bank
- G2. All required data in Data Bank, desirable data still outstanding
- G3. Some data in Data Bank, some required data types still necessary
- G4. No data in Data Bank, all required data types necessary

H. Possible Safety Problems

- H1 PPSP preview not necessary at this time
- H2. Recommend PPSP preview.

Collins indicated that the addition of this information to the normal review comments and panel consensus was intended to provide a more systematic approach to the way SSP reviews were held at the JOIDES Office. It was felt by the JOIDES Office that the addition of these comments would also provide additional clarification on the readiness of the site survey package. Collins indicated that the JOIDES Office will pass this information along with the review comments and consensus to the proponents. He cautioned that this would be in addition to the usual letters to proponents from the SSP Watchdog.

2.4 Data Bank (Quoidbach)

Since November the Data Bank has received much new data. A listing of this data is included as Appendix B.

Quoidbach represented SSP at the Caribbean Drilling Workshop held at the University of Mayaguez, Mayaguez, Puerto Rico, February 25-26. Site survey requirements were outlined and guidelines for submission of data to the Data Bank were explained. Results of the meeting were reported back to the SSP chair (Kastens) and the Caribbean watchdog (Mountain).

Quoidbach attended the Pollution Prevention and Safety Panel (PPSP) meeting in Bridgetown, Barbados, March 24-26. In preparation for this meeting, Safety Packages were received, reviewed, and distributed to PPSP members for Legs VICAP/MAP, TAG, Return to 735B, and Eastern Equatorial Atlantic Transforms. A preview package for Sites on the Erastosthenes Seamount and the Napoli Mud-Volcano (Med I) was also distributed to the Panel.

Beginning with leg 153, the Data Bank is now distributing an informational letter to all off-going science party members of all drilling legs, describing the role of the Data Bank as an archive of regional and site-specific data accessible to all ODP scientists, and enclosing a 4D database printout of the Data Bank holdings pertaining to that leg.

Future plans for the Data Bank include: (1) Publish new "Guidelines for Submission of Data to the ODP Data Bank" in the JOIDES Journal; (2) Summer hire to assist in entry of older data into the Data Bank's 4D database; (3) Data Bank will investigate use of the World Wide Web for distribution of site survey and safety guidelines, and possibly site survey navigation plots.

2.5 TAMU (Blum)

Blum reported on recent activities at ODP/TAMU, including planning for drilling in the next century, response to the base budget cut required by JOI to support special operating expenses, and progress towards a decision on awarding the computer upgrade contract. Of particular interest to SSP is the fact that no ODP/TAMU money has been budgeted for shallow water hazards surveys (see further discussion in section 2.1 above).

Blum requested that as part of the ongoing rethinking of the policy for distributing data packages prepared by the ODP Data Bank, that the ODP Staff Scientists be relieved of the responsibility of hand-carrying a data package to the ship. This reopened the question of data package distribution policy, which had been previously discussed at the July and November 1993 SSP meetings. At that time, SSP supported the reduction of the number of data packages from four to three. New points raised in the April SSP discussion included: (1) The details of data package distribution are spelled out in the contract between JOI and L-DEO. JOI wants input from PCOM before approving a change in this contractual arrangement. PCOM wants a written statement on the data package change issue; that statement would appropriately come from SSP. (2) When data was literally hand-carried onto the airplane, having data packages carried to the ship by Staff Scientists helped guarantee their safe arrival. However, modern data packages are usually too large to carry as cabin baggage and thus usually travel as checked baggage. For most port stops, checked baggage is not safer than shipment by air courier. (3) The name "Co-Chiefs Data Package" has caused problems because some co-chiefs figure that they can skip the step of depositing data into the Data Bank and just bring their own data to the ship, because "the Data Bank just turns around and puts the data into the 'Co-Chiefs' package anyway." A new name is desirable to emphasize that the data package forms the basis for ship to shore negotiations about changes in the cruise strategy, notably for changes in site location. After further discussion, SSP formulated the following recommendation to PCOM:

SSP Recommendation #3, concerning changes in pre-cruise distribution of operations data packages (formerly known as Co-Chiefs' data packages): SSP recommends that the name of the Co-Chiefs' data package be changed to Operations Data Package. SSP also recommends to PCOM that the Data Bank be permitted to reduce the number of data packages produced from four to three. One package would be sent directly to a Co-Chief, one would be sent by express delivery to the Co-Chiefs and Staff Scientist via the Port Agent, and one would be sent to ODP/TAMU Science Operations.

Explanatory Notes: Currently the Site Survey Data Bank contract with JOI requires it to produce four data packages for each Leg. Two packages are sent directly to the Co-Chiefs before the cruise, and two are sent to ODP/TAMU, one to be used by Science Operations during the cruise, and the other to be carried to the ship by the Staff Scientist. As the latter package routinely goes unused onboard the *Resolution*, SSP had instructed the Data Bank to inquire whether all interested parties would support an elimination of this extra data package. Both PPSP and ODP/TAMU have indicated that having only three data packages would be acceptable to them. With the recent growth in bulk and weight of data packages, the data packages are now routinely taken as checked baggage on airline flights, rather than as carry-on baggage as in earlier years. Sending the data as checked baggage is not seen to be any more reliable than using an express delivery

company. For this reason, it is proposed that one data package be sent via express delivery to the port agent, addressed to both Co-Chiefs and the Staff Scientists. The delivery date would be far enough in advance of the portcall to allow the Data Bank to confirm delivery, and deliver a replacement package if needed. One of the remaining packages would still be sent directly to a Co-Chief, and one to ODP/TAMU Science Operations. The two shipboard packages would be taken home by the two Co-Chiefs at the conclusion of the Leg.

2.6 NSF (Shor)

Shor reported briefly on: (1) recent and projected funding by NSF for ODP; (2) recent and projected field programs supported by NSF as ODP site surveys; and (3) proposed changes in NSF proposal target dates.

Total support for ODP in the 1994 NSF budget is \$38.7 million, of which \$28.4 million goes to JOI to support drilling operations (\$27.8 million awarded, \$600K presently withheld pending decisions on new computer/data base design), and the remainder is used for USSSP/USSAC (\$4.6 million), direct grant support (\$4.9 million, largely "site survey" science) and a small contingency budget. Because of the reduction in international contributions in 1994 (the Can/Aus partial membership), the NSF component of operations support jumped \$3 million from 1993, while total NSF support for ODP increased by only \$2.5 million. One result has been a reduction of about \$900K in funds available in '94 for grant support (\$5.8 million in 1993). Planning for 1995 is presently based on a projected full Can/Aus membership, a small increase in overall NSF support for ODP (ca 3%), and level operations support to JOI from NSF.

Funding commitments for 1995 include three field programs (California Borderland, Australia-Antarctic Discordance, plus post-drilling *Alvin* diving at TAG). 1994 programs include Costa Rica *Alvin* diving, pre-drilling surveys at TAG, Bahamas, and Shatsky Rise. Projects supported in 1993 included work in Woodlark Basin, TAG (heat flow), Gardar Drift, Cascadia margin and Vema Transform (the latter two split support with the MG&G program at NSF). An additional one or two field programs in 1995 may be supported based on proposals due at the 5/1/94 target date, with decisions in July.

Changes in target dates for all NSF Ocean Science programs have been proposed, and are presently awaiting community comment. The present dates of November 1 and May 1 are proposed to shift, respectively, to August 15 and February 15 beginning with the first 1995 target date. The change will, if approved, mean that 1996 field program proposals will need to be submitted by either 11/1/94 or 2/15/95. Earlier decisions on proposals will allow SSP to know plans for all or most site survey programs by the July meeting.

NSF has recently revised its policy on data dissemination and archiving. The new policy explicitly states that investigators supported by the ODP part of NSF are expected to deposit data into the JOIDES Data Bank. Discussion followed about the data archiving policies of the funding agencies of the non-U.S. partners. Most have no explicit written policy concerning investigators' obligation to deposit data into any widely accessible archive. In some countries, funding for ODP-related activities, including site survey cruises, comes from a separate pool of money; in other countries these funds come from the same pot as other cruises. In general, non-US scientists funded for site survey cruises have deposited appropriate data in the Data Bank conscientiously; however there have been occasional instances where data was deposited very late or not at all, especially in circumstances where a day or two of ODP site survey data collection was added to a cruise whose primary objectives were not ODP-related. Some non-US SSP members felt that it could be useful for their national funding agencies to adopt a policy similar to the new NSF policy.

Action item #2: Shor to provide to SSP Chair Kastens a copy of NSF's new policy statement concerning the obligation of investigators funded by NSF/ODP to deposit data in the ODP Data Bank. Kastens to circulate this policy statement to non-US members of SSP. Non-US panel members may, if they feel that it would be useful and appropriate within the funding structure of their own particular country, pass this statement along to program managers in their national funding agencies to consider as a model for possible adoption.

3. SITE SURVEY IMPLICATIONS OF RECENTLY DRILLED LEGS

3.1 Leg 152: East Greenland Margin (Blum/Mountain)

The pre-cruise SSP Consensus was that the Data Bank had an excellent data set for Leg 152. SSP recommended additional 3.5 kHz data, which were not collected prior to the cruise. 3.5 kHz data were collected during the cruise with the *JR*, but were not critical in determining new sites.

New sites defined during the cruise were based on the high-resolution MCS data collected during a dedicated site survey cruise by the Geological Survey of Denmark in 1992. The particular lines used were not in the Co-chiefs' package, but were brought to the ship by the co-chief who acquired the data. ODP shore-based approval for new sites was given based on faxed sections across the proposed sites.

SSP Consensus #1: No site survey problems were encountered on Leg 152, East Greenland margin.

3.2 Leg 153: MARK (Blum/Kastens)

The SSP Consensus at the November '93 meeting was that one month before the cruise the data packet in the Data Bank was still weak, and that backup sites needed to be identified and documented before the leg. The data situation did not improve much between the November SSP meeting and the drilling leg. During the leg, the official data packet was never used. Instead, different data brought to the ship by the co-chiefs were used. This procedure is unsatisfactory because (a) the data were not at TAMU to be used for discussion of new site selection during the cruise, and (b) the data are not in the data bank to be used by scientists who wish to study the geological and geophysical context of the drilling observations.

A total of almost a week was used to camera-survey the sea floor for a suitable site to deploy the hard rock guide base (HRB). It was found that the critical average slope should not exceed 10 degrees; effective slopes are often steeper due to microtopography (blocky terrain), and because deployment of the three-leg HRB tends to maximize the structure's angle relative to the local slopes. It was also found that sediment thickness should not exceed 1 meter for a successful deployment of the HRB. Furthermore, only the outer edges of major fault block terraces are suitable for drilling because inner terraces are covered by thick, blocky debris, and slope faces between terraces are far too steep. However, even under ideal conditions (slope < 10 degrees; sediment < 1 m) drilling was hampered by subsurface faults and/or rubbles.

Neither slope angle nor sediment thickness can be determined efficiently and accurately with the *JR*. Tagging the bottom with the bit particularly wears the equipment and puts the bottom hole assembly at risk. From the SSP point of view, the extended use of the *JR* for these purposes reflects, in part, the lack of appropriate site survey. SSP reiterates that enough back-up sites must be defined and documented with data prior to a cruise. Feedback from the shipboard scientific party suggests that in a complex and difficult environment like the MARK area, 5 - 10 alternate sites are not too many. MARK had two primary sites identified before the cruise, and no backup sites.

Furthermore, submersible navigation is extremely important. Observed outcrops at the scale of 5 - 20 m cannot be targeted with the present GPS navigation (± 50 to 100 m) and with the uncertainty about the position of the bit/camera relative to the slip of 1% of the water depth (~ 35 m in the MARK rift valley). It is becoming clear that dedicated dives are needed to identify potential drill sites within a few meters absolute position. Such dives should have the capabilities to measure local slope, determine sediment thickness, and deploy a reference beacon or sonar reflector at the sea floor which would allow relocation of the site for drilling. ODP/TAMU is asked to provide specifications for a reflector. Without these data, pre-cruise definition of deep drilling sites in bare rock, offset section drilling environments is likely to remain elusive, i.e., at the level of legs 147 and 153.

SSP Action Item #3: TAMU liaison Blum to request specifications for a sonar reflector which allows relocation of a site and which can be deployed from a site-surveying submersible.

SSP Consensus #2: The Leg 153 data packet was not complete, as noted repeatedly by SSP before the cruise. The data included in the packet did not help to identify alternate sites. Some of the additional data brought to the ship by the Co-chiefs were used to look for alternate sites. Only two sites were defined prior to the cruise, but 5 sites were drilled during Leg 153. A larger number of sites must be identified and documented prior to the drilling leg.

Discussion of the more general implications of Leg 153 for hard rock drilling in tectonically complex terrains resulted in the following SSP consensus:

SSP Consensus #3: The following site survey requirements are crucial if hard rock drill sites in tectonically complex areas are to be defined prior to the drilling cruise instead of located during the leg through trial and error and by using the *JR* for extensive survey: 1) precise navigation of submersible dive data to a degree that observed outcrops can be relocated by the drilling ship; 2) submersible-deployment of a reference beacon or sonar reflector near potential drill sites as navigation references for submersible and drill ship/string; 3) slope and sediment thickness measurement with the submersible to determine if a HRB can be deployed.

Feedback from Leg 153 participants indicates that communication between geologists and operations personnel was incomplete. Scientists were not sufficiently informed about the effective technical capabilities and limitations of equipment such as the guide base, and engineers didn't have the best possible knowledge of the physical setting.

SSP Action Item #4: For barerock and offset drilling legs, ODP Data Bank to provide ODP/TAMU with appropriate site survey data, especially submersible video tapes, to give operations personnel the best possible idea of the physical setting of drill sites in complex bare rock environments.

Tectonized bare rock sites are difficult to drill due to their inherent nature. Even if a video survey identified a potentially suitable site, penetration or reentry may fail because of faults, fracture or rubble zones. Efficient fracture surveys at various scales are most desirable.

SSP Consensus #4: The site survey community is urged to consider design of high-resolution sea floor geophysical experiments (seismic, electromagnetic, etc.) capable of distinguishing between intact crustal blocks and volumes of pervasively fractured or brecciated material.

3.3 Leg 154: Ceara Rise (Srivastava/Blum)

Leg 154 sailed with an excellent data set and had no site survey problems.

4. SITE SURVEY STATUS OF UPCOMING SCHEDULED LEGS

Note: These minutes reflect the set of programs discussed as "upcoming scheduled legs" at the SSP meeting in Brest. Subsequently, the Return to 735B program at the Atlantis II Fracture Zone, originally scheduled as leg 159, was dropped from the FY'95 drilling schedule because of logistical problems.

4.1 Leg 156: North Barbados Ridge

SSP Watchdog: Permanent: Camerlenghi; Acting: Quoidbach

SSP Proponents: none

Target Type(s): All sites target type C: active margins

All vital data sets for this leg have been in the Data Bank since the July 1993 SSP meeting, with only some desirable data (3D seismic lines and velocity data) missing. Since the SSP meeting last November, the Data Bank has received 11" X 17" profiles of all lines of the 3D seismic grid over the proposed drilling locations. Velocity data has yet to be submitted to the Data Bank. Quoidbach will approach Tom Shipley about this after the SSP meeting and will advise him of the desired format for the data once this is finalized by SSP.

SSP Consensus #5: All vital data types for the North Barbados Ridge program (Leg 156) are in the Data Bank. Proponents are encouraged to submit missing "desirable" data types (velocity determinations) in time for inclusion in the Operation Data Package.

4.2 Leg 157: VICAP/MAP

Watchdog: permanent: Scrutton; acting: Quoidbach

SSP Proponents: SSP/PCOM liaison Kidd was a proponent for MAP

Target Type(s): G: topographically elevated feature, with additional data requirements as defined at April '93 SSP meeting (for VICAP: swath bathymetry or side-looking sonar, seismic velocity, crossing MCS/SCS profiles, and gravity)

At the December '93 PCOM meeting, VICAP/MAP was placed on the drilling schedule as Leg 157, due to difficulties preparing the DCS for testing. At that time the data package was less mature than usual for scheduled legs, and problems still remain with the data package at the April SSP meeting.

MAP:

SSP did not discuss the MAP portion of the VICAP/MAP at either the Nov. '93 meeting or the April '94 meeting, as it had previously been judged as ready to drill. No additional data has arrived at the Data Bank for the MAP sites since the last meeting, and the status of MAP remains as "ready to drill". Phil Weaver outlined the MAP drilling strategy at the Spring PPSP meeting, and all four MAP sites were approved as presented.

VICAP:

SSP reviewed the VICAP sites at the November meeting and found that several types of vital data still had not been submitted to the Data Bank. In March '94, H.-U. Schmincke presented the VICAP sites to PPSP, including two new sites which had never been reviewed by SSP (VICAP-1a and 2a). All sites were approved by PPSP, with some minor modifications of locations for safety purposes.

All of the VICAP sites, including the new ones, have MCS/SCS coverage, with the data existing in the Data Bank. In March '94, Tony Watts provided the Data Bank with additional MCS coverage of sites 1a, 4 and 8, and swath bathymetry over sites 1a, 3, 4,

and 8. This submission fills in some gaps which were identified in the data packages for these sites by SSP. However, many gaps remain which need to be filled in order to assemble the Leg 157 Operations Data Package. A table of missing vital and desirable data by site is included in Appendix C.

VICAP has proven to be a difficult dataset to understand, due in part to the many changes in site numbering, but mostly due to the lack of proper navigation plots to tie the seismic lines into a geographic reference frame. It is vital that a navigation plot, annotated in the same units as those on the seismic profiles, be submitted to the Data Bank prior to the cruise. The lines in the Data Bank at this time have a mix of CDP and shotpoint annotation, but the drilling locations approved by PPSP are in units of meters-along-track. The Data Bank, having no navigation annotated in meters-along-track, cannot plot the PPSP approved site locations. The Co-Chiefs need to provide a table which allows translation of site locations between geographic coordinates, shotpoints, CDP, and meters-along-track as soon as possible, along with a clear navigation plot at a reasonable scale (e.g. 8 inches/degree) showing M16, M24 and CD82 tracks.

SSP consensus #6: The MAP portion of VICAP/MAP is ready to drill. The status of the VICAP portion has improved with the submission of CD82 MCS and swath bathymetry, but there are still several types of vital and desirable data which need to be submitted in time for the creation of the Operations Data Package for Leg 157. The top priority of the proponents should be to submit all vital data types, including clear navigation plots annotated in units which tie it to the seismic data.

4.2 Leg 158: TAG Hydrothermal System

SSP Watchdog: permanent: Toomey; Acting: Quoidbach

SSP Proponents: none

Target Type(s): Modified "F: bare rock drilling" guidelines, see previous minutes

New data has been received since SSP's November meeting and consists of current meter and heat flow data at the TAG mound, along with heat flow data for the newly outlined backup sites at the Alvin and MIR relict hydrothermal zones. In addition, Peter Rona has provided a paper on *Relict Hydrothermal Zones in the TAG Hydrothermal Field, Mid-Atlantic Ridge 26°N, 45°W*, JGR, Vol. 98, #B6, pp. 9715-9730.

In addition, SSP had requested that the TAG proponents submit an addendum to their proposal, outlining a set of backup sites to be used if technical or safety problems hindered drilling at their primary sites. While no formal addendum has been received, a backup drilling strategy was outlined in the TAG safety package, which was subsequently endorsed by PPSP at their spring meeting, and Sue Humphris has sent a similar report to SSP which outlines this plan as well. SSP thanks the TAG proponents for their thoughtful response to our request for backup sites.

The primary backup strategy will be to go to the relict Alvin hydrothermal field and drill a 200 m or deeper hole. The secondary plan is to drill a suite of short holes in the MIR relict hydrothermal zone. A page sized bathymetric plot of the relict sites has been submitted, but no specific drilling locations are shown on it. A submersible dive is scheduled at the Alvin zone in the Summer of '94 to do survey work, as well as to select a site and deploy a beacon. Survey work will take place at the MIR site this summer as well, with the intent of collecting sidescan and photographic data for use in selecting specific sites. SSP urges the proponents to submit this data to the Data Bank as soon after the survey work as possible.

SSP consensus #7: With the addition of current meter and heat flow data, all vital and desirable data are in the data bank for the sites on the TAG Hydrothermal mound. SSP thanks the proponents for responding

to SSP's request for a backup drilling strategy, and urges them to submit the data from upcoming surveys of the Alvin and MIR relict hydrothermal zones to the Data Bank as soon as possible.

4.3 Leg 159: Return to 735B: AII Fracture Zone

Note: After the Brest SSP meeting, this program was dropped from the FY'95 drilling schedule for logistical reasons.

SSP Watchdog: Srivastava

SSP Proponents: Liaison Dick is a proponent & Co-Chief

Target Type(s): Offset Drilling (Tectonic Window); backup site E: open ocean <400m sed.

This proposal proposes deepening the existing hole 735B on the Atlantis II FZ, and also a transect of shallow holes east and west of the existing holes.

At their November 1993 meeting SSP had reiterated their concern about the lack of contingency plans in case difficulties are encountered in deepening hole 735B. SSP now notes with pleasure that the proponents have selected backup sites where drilling can be carried out should such a situation arise that are consistent with the main objective of this drill leg. The two backup sites selected by the proponents lie north of the prime site in a tectonically conjugate crust of similar age. These sites lie in a region where some sediments may exist, e.g. at site SWIR 5 where seismic data show presence of some sediments. The existing seismic data is not high enough quality to resolve this question accurately everywhere specifically at alternate site SWIR 6 where no sediments can be seen. No 3.5kHz data exist at these sites to resolve this question. SSP would encourage the proponents to deposit additional navigation data that may exist at these sites in order to locate these sites easily.

SSP notes from a recent correspondence with Dr. Tim Minshull of Cambridge University that he will be collecting seismic reflection, refraction, gravity, magnetic, 3.5 kHz and 10 kHz data plus doing some dredging in the vicinity of site 735 B. It would be to the advantage of the proponents to contact Dr. Minshull to get copies of this data.

SSP Consensus #8: SSP is pleased to see that backup sites have been selected by the proponents for Leg 159, return to 735B. SSP encourages the proponents to deposit additional navigation data which would be useful to the shipboard party in locating these sites should these sites be required to be drilled.

4.4 Leg 160 (rescheduled leg 159): Equatorial Atlantic Transform Faults

SSP Watchdog: Sibuet

SSP Proponents: Scrutton

Target Type(s): B: passive margin

In November 1993, SSP considered that all vital data for the Equatorial Atlantic Transform Faults leg were in the Data Bank. In October 1993, PPSP suggested to provide appropriate documents to decipher if sites were drillable. In particular, they suggested to properly reprocess MCS data in the vicinity of each site. They were concerned with pinchouts along the northern flank of the marginal ridge and suggested to properly image synrift sediments and their contacts with basement. In addition, they suggested to provide information from commercial drilled holes on the adjacent shelf (lithologies, bottom hole temperatures...) All crucial MCS data were reprocessed in early 1994 and presented at the April 1994 PPSP meeting. All the sites and new contingency alternate sites were accepted. All the reprocessed data (stack and migrated profiles) are in the Data Bank.

SSP Consensus #9: All vital data for Equatorial Atlantic Transform Fault drilling (rescheduled leg 159) is in the Data Bank.

4.5 Leg 161 (rescheduled leg 160): Eastern Mediterranean

Watchdogs: Saprofels: Kastens; Med. Ridge: Farre

SSP Proponents: Camerlenghi & Kastens were proponents of Med Ridges; SSP liaison Kidd and SSP member Camerlenghi have been involved in site surveys for Med Sap

Target Type(s): Saprofel sites, Ionian Transect, and mud volcano: A: paleoceanographic; Erastosthenes Transect: B: active margin

At the December '93 PCOM meeting, two legs of Mediterranean drilling were scheduled, an eastern Med and a western Med leg. The Eastern Mediterranean leg comprises those sites from the Mediterranean Saprofels proposal (391-rev2) located east of Sicily, plus those sites from the Mediterranean Ridge proposal that are not too close to Libya.

Saprofel Sites:

At previous meetings, SSP has OK'd the data packages for MedSap sites 1C, 2B, 2C, 3, 4A, and 4C. However, in preparation of the Safety and Operations Data Packages for this leg, the Data Bank will need better navigation charts for the Tredmar and Tyro data, plus a clarification of the exact locations of sites MedSap 1C and 2B (refer to minutes of Nov '93 SSP meeting).

"Tectonics" Sites :

Following correspondence among the proponent, TAMU/ODP, and the State Department, a decision has been reached that the sites in the Sirte transect (MR-4, -5 and -6), and the Katia Transect (MR-7, -8, and -9) are too close to Libya for the JR to drill. Consequently, the scheduled Eastern Mediterranean leg includes the Ionian Transect (MR-1, -2 and -3), the mud volcano site (MV-1), and the Erastosthenes Transect (ESM-1, -2 and -3).

A limited amount of new data (3.5 kHz and sidescan sonar data for Ionian transect; and MCS data for Erastosthenes transect) were deposited in the Data Bank since the November '93 SSP meeting. SSP's evaluation of Mediterranean Ridges data packages remains unchanged (see SSP minutes from November '93 meeting). SSP liaison Kidd noted that there should be data from the Tredmar cruise in the mud volcano area, including video data and side-looking sonar data, which does not seem to have been deposited.

Based on SSP's evaluation of the data package submitted in support of the Erastosthenes transect (Tredmar-3 dataset), plus a new addendum discussing the Erastosthenes sites, SSP offers the following recommendations to the Co-Chiefs:

- The Addendum to ODP proposal N330-Rev (dated December, 1993) needs to be checked for consistency/accuracy. For example, there are conflicting estimates regarding depth to basement at proposed site ESM 1A (807 vs 350 meters).
- Greater effort is needed to place Erastosthenes seamount drilling in regional context. For example, the old Line MS-54 shows significant penetration to ~600 msec. in the crestal area, while Tredmar data only image the upper ~150 msec. The drilling strategy (in the Addendum) appears to include information/interpretation from both datasets, but the precise reasoning for the expected stratigraphy at ESM 1A is unclear. Similarly, interpretative maps showing major structural/bathymetric elements and other important features (e.g., interpreted craters on the summit; "erosional windows" on the northern flank, raised bathymetric features related to underthrusting to the north, etc.), need

show the relationship to the proposed drilling sites and geophysical survey coverage. This will be critical for upcoming discussions with PPSP.

In summary, sufficient data are in the Data Bank to support a leg of drilling in the Eastern Mediterranean. SSP strongly recommends that the Co-Chiefs improve documentation to place the proposed drilling sites at Erasthenes transect in regional context for upcoming discussions with PPSP.

SSP Consensus #10: SSP's evaluation Mediterranean Ridges remains unchanged since the November '93 SSP meeting: the Olimpi mud volcano site, the Ionian transect, and Erasthenes transect (except ESM-4) have complete or nearly complete data packages. SSP recommends that the Co-Chiefs develop interpretative maps/sections to integrate results and interpretations from recently collected data with the proposed drilling strategy (mainly at Erasthenes transect) for upcoming discussions with PPSP.

4.6 Leg 162 (rescheduled leg 161): Western Mediterranean

SSP Watchdog: Kastens

SSP Proponents: SSP liaison Kidd was a proponent for Alboran

Target Type(s): sapropel sites: A: paleoceanographic; Alboran basin tectonics: B: Passive margin

At the December '93 PCOM meeting, two legs of Mediterranean drilling were scheduled, an eastern Med and a western Med leg. The western Med leg comprises those sites from the Mediterranean Sapropel proposal located west of Sicily, plus those sites from the Alboran Basin proposal judged safe to drill from a hydrocarbon perspective.

Sapropel Sites:

MedSap sites 5 and 6A were OK'd at previous SSP meetings. In the July and Nov. 1993 meetings, we unenthusiastically approved MedSap 7B, a reoccupation of DSDP Site 121, because Site 121 recovered a quite incomplete Plio-Pleistocene section, a section not well suited to the detailed paleoceanographic objectives of the MedSap proposal. We again encourage the Co-Chiefs to work together to see if it might be possible to develop a site where a more complete Plio-Pleistocene section would be likely.

"Tectonics" Sites:

Sites ALB-2(new), ALB-3 and ALB-4 are scheduled for the tectonics portion of Leg 162. No new data has been submitted in support of Alboran Basin tectonics sites since our last meeting. At that time we noted that a few small items of existing data still needed to be deposited in the Data Bank: 3.5kHz data or Parasound across ALB2(new), heatflow data and coring data from a recent cruise. Refer to the SSP matrices accompanying the November '93 SSP minutes for specific details about both the MedSap sites and the Alboran Basin tectonics sites.

SSP Consensus #11: The data package for Leg 162, Western Mediterranean, is in reasonably good shape, lacking only a few small items of existing data. SSP hopes that the CoChiefs may be able to identify a more favorable location than MedSap7B (reoccupation of DSDP 121) to recover the Plio-Pleistocene paleoceanographic history of the Alboran Sea, because the section at DSDP 121 is known to contain a large hiatus.

4.7 Leg 163 (rescheduled leg 162): North Atlantic Arctic Gateways II

SSP Watchdog: permanent: Hinz; acting: Srivastava

SSP Proponents: none

Target Type(s): all sites A: paleoceanographic

This program contain sites from three main proposals; 372, 406, 416 in addition to sites approved for Leg 151. This has created a lot of confusion concerning which sites have undergone a review process by SSP and which sites have not. Looking into the minutes of old SSP minutes it became evident that sites from all of these proposals have not been reviewed by SSP. Following is a list of proposed sites and their status:

Site	Proposal	Status
YERM-1	NAAG-I	In DB; Leg 151
YERM-5	NAAG-I	In DB; Leg 151
SVAL-1	416	In DB, Reviewed by SSP Nov. '93. Safety problem. Site to be moved.
EGM-3	NAAG-DPG	NGT-46 MCS line is only data in Data Bank. Need SCS, 3.5 kHz and core
EGM-4	NAAG-DPG	GGU and BGR MCS lines are in DB Need SCS, 3.5 kHz and core
ICEP-1 (907)	NAAG-I	Leg 151, redrill
ICEP-3	NAAG-DPG	Not drilled on Leg 151. SCS in DB. No 3.5 (SSP minutes Aug. '92), MCS or core.
NIFR	336	In DB, no 3.5 data(SSP minutes Aug., 92)
SIFR	336	In DB, no 3.5 data(SSP minutes Aug. 92)
BJORN	406	SCS, core and swath bathymetry in DB. No MCS.
GARDAR	406	In DB; reviewed Nov., 93
NAMD-1 (DSDP 116)	372	In DB; reviewed Apr. 94
FENI-1, 2	406	In DB; reviewed Nov. 93

Data from site NAMD1 has now been received by DB containing a set of MCS. It is a very high quality data package on which the proposed site has been located. The site has been selected at the crossing of two MCS lines where hole DSDP 116 was drilled. The data show some disturbance under this site, and the proponents may wish to consider whether this site should be moved slightly away from the proposed location to a point only a few kilometers away where the sediments do not show any disturbance. The site does not seem to pose any safety problem, and as such it does not have to be located at the intersection of seismic lines.

SSP had conveyed to the proponents its concern about safety problem which may arise at site SVAL-1 and had suggested that this site should be moved. No response has been received from the proponents to date.

Many of the sites lack 3.5kHz data, which is considered a vital data type for paleoceanographic sites. It is suggested that the proponents should deposit with data bank 3.5 kHz data from some of the sites as listed above as soon as possible.

Because of the confused state of this proposal involving many old proposals it is recommended that a preliminary prospectus for this leg be written up as soon as possible for the benefit of all concerned.

SSP Consensus #12: The majority of the sites for the NAAGII drilling (rescheduled leg 162) have adequate data in the data bank, but a number of specific items remain outstanding. SSP recommends that additional data, if existing, be supplied to the DB for contingency purpose for drilling in the Northern latitudes. SSP recommends the CoChiefs/proponents considering moving two of the sites from the proposed locations to areas that exhibit less sediment disturbance or less safety risk.

4.8 Leg 164 (rescheduled leg 163): Gas Hydrates

SSP Watchdog: permanent: Camerlenghi; acting: Quoidbach

SSP Proponents: none

Target Type(s): A: paleoceanographic

The SSP consensus at the November meeting was that the Gas Hydrates program was ready for scheduling, but that the data package could be improved with the submission of OBH velocity data, along with sidescan and photographic images from the recent survey work over the proposed drill sites. No new data have been received at the Data Bank since that time.

However, in a recent phone conversation, Charles Paull outlined the basic results of his survey cruise of last Fall over the diapir sites. He indicated that Sidescan surveys were run over the Cape Fear Diapir, as well as one unofficially called the Blake Ridge Diapir. They were looking for fluid flow at the Cape Fear Diapir, but encountered too many sonar targets to get clear results. A survey of the Blake Ridge site showed active venting of biogenic methane from the faulted diapir. A plume of methane, possibly with suspended gas hydrate crystals in it, rises up to 300 m above the seafloor at this location. There are indications that chemosynthetic communities are present, localized to the trace of the fault. The fault appears to reach down to the base of the gas hydrate stability zone. He mentioned that he also took some piston cores from this area, and that while there were no detectable gas hydrates, the cores did fizz on deck. He plans to submit a revision of his proposal to include sites at the Blake Ridge Diapir, and he understands that he must have specific site locations and all supporting data in by July 1.

SSP Consensus #13: No new data has been submitted in support of the Gas Hydrate program since the last SSP meeting, at which time we reviewed a strong and nearly-complete data package. We understand that a recent coring/side-looking sonar cruise on the diapir area was successful, and we look forward to seeing these new data, as well as a promised proposal addendum presenting new site(s) on the Blake Ridge Diapir.

5. POTENTIAL FUTURE DRILLING: TECP

5.1 NEW: West Woodlark Basin (447)

SSP Watchdog: permanent Trehu; acting Farre

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

Target Type(s): ACE-1 & 2 : B: passive margin; ACE-3: F: barerock

The new proposal *Active Continental Extension in the Western Woodlark Basin* investigates the role of low-angle faulting in continental extension/breakup. Three sites (ACE 1, 2, & 3) are proposed, with a planned total penetration of 4,100 m (2,600 m sediment; 1,500 m basement). Sites ACE 1 & 2 are being judged as Passive Margin (SSP Target B), and ACE 3 as Bare-Rock Drilling (SSP Target F). Proponents are referred to JOIDES Journal, Feb. '92 for a listing of vital and desirable data types for these target types; note, however, that for bare-rock drilling sites, data types SCS, 3.5kHz and cores were downgraded from X (vital) to (X)* (recommended, but may be required in some cases) at the April 1993 SSP meeting.

SSP recognizes that a large volume of data exist to support drilling in the Woodlark Basin and anticipates that an acceptable data package can ultimately be assembled. In preparing a dataset for submission to the Data Bank, the proponents should consider the following:

- Crossing MCS lines are ordinarily required for passive margin drilling.
- As no sediment is anticipated at site ACE-3, data to support deployment of the bare-rock guide base (photography or video) will be required.
- As sites ACE-1 & 2 will almost certainly require re-entry cones, core information near the sites will be required.
- Seismic velocity information must be developed/submitted to aid site selection and depth estimation from the seismic data.
- Water current velocities in the area must be documented for ACE-3, located in 300 meters water depth.
- If available, documentation on the heat flow of the study area should be provided for PPSP's consideration of thermal maturation.
- Eventually PPSP will likely ask for additional data from the nearby commercial wells.

SSP Consensus #14: SSP recognizes that a large volume of data exist to support drilling in the West Woodlark Basin (447), although no data package has yet been submitted to the Data Bank. One possible critical issue may be the need for visual data in support of bare-rock drilling at site ACE-3.

5.2 Costa Rica Accretionary Wedge (400rev/add2)

SSP Watchdog: permanent Camerlenghi; acting Lykke-Anderson

SSP Proponents: none

Target Type(s): B: active margin

At our April and July 1993 meetings, SSP noted that an almost complete data package for drilling of the structural objectives was already in the Data Bank, but that new data were needed to support the fluid objectives, and a core was needed near proposed re-entry sites. No data was submitted to the Data Bank since last meeting. Proponents have communicated that reprocessing of the 3D-seismic data from this package is underway. According to a detailed email from the proponents, the planned Alvin-cruise for collection of heatflow data, cores and bottom observations was successfully completed in Feb..

1994. The proponents are urged to send the data obtained on the Alvin-cruise before the July 1 deadline.

SSP Consensus #15: The data set in the Data Bank is satisfactory for the structural objectives of the Costa Rica Accretionary Wedge (400 rev/add2) proposal. Heat flow measurements, cores and submersible observations have been collected in Feb. 1994, but not yet deposited; it is likely that these new data will complete the data requirements for the fluid objectives.

5.3 NEW: Taiwan Arc/continent Collision (450)

SSP Watchdog: Sibuet

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

Target Type(s): C: active margin

The aim of the proposal is to investigate the arc-continent collision processes by looking at the along-strike progression from the subduction of the South China sea to the collision in Taiwan. SSP recognizes the high scientific quality of the proposal. However, SSP suggests to add a trackchart map of the existing seismic profiles and to precisely locate the seismic sections shown in the proposal. From a comprehensive point of view, the proposal needs to clearly express what is the input of each proposed site with respect to the problem to be solved.

For active margin drilling targets such as this, vital data types include a grid of MCS data, 3.5kHz data, either swath bathymetry or side-looking sonar data, and cores in the vicinity of any re-entry sites. As most of the existing seismic data are 4 or 6 channels data, SSP recommends that a MCS survey should be funded as soon as possible. SSP understands that there is the possibility to use either the R/V M. Ewing or Rig Seismic for this work with funding to be eventually shared by NSF, Taiwan and possibly Australia. This deep seismic survey is absolutely necessary to get a reasonable picture of the whole geodynamic system from the subduction to the collision and to better locate the final drilling targets.

The Taiwan region is not in the area of operations for FY'96 as defined at PCOM's April 1994 meeting, and as a consequence this program will not be discussed at the July or Nov '94 SSP meetings. The proponents should aim to submit a package of existing data to the ODP Data Bank in time for SSP to examine the data at our spring 1995 meeting.

SSP consensus #16: Most of the existing seismic data for the Taiwan Arc/Continent collision area (450) are 4 or 6 channels data, rather than the grid of MCS data considered vital for active margin sites. SSP understands that there is a possibility to collect the requisite data from R/V M. Ewing or Rig Seismic. SSP feels that this deep seismic survey is essential to get a reasonable picture of the whole geodynamic system from the subduction to the collision and to better locate the final drilling targets.

5.4 NARM Nonvolcanic-II: Return to Iberia (NARM-Add3)

SSP Watchdog: Mountain

SSP Proponents: Srivastava and Hinz were members of the NARM-DPG

Target Type(s): all sites B: passive margin

At their Fall '93 meeting, TECP discussed and ranked a draft of NARM Add3 ("Return to Iberia"). SSP evaluated the data readiness in November; comments were returned to the proponents, who then prepared a formal proposal that they submitted to the

JOIDES office in December. This document was evaluated again by SSP in Brest. The proponents identify this proposal as 'preliminary', a term that SSP assumes means that drilling strategies may change as analyses of the puzzling rocks from Site 900 are completed. Consequently, the proponents are urged to keep the SSP watchdog informed of these evolving plans.

An 'if-then' type sequence of drilling has been proposed. Of the 6 sites described, 3 were begun during Leg 149 (898, 900, and 901), and 2 were previously determined to meet SSP data requirements (IAP-3C and GAL-1). One site is entirely new (IAP-6A). Each site is located on a basement high. Thus, understanding the three-dimensional form of these features continues to be crucial. IAP-6A is located on a seismic dip line with no crossing line; the implication or assumption is that the structure is elongate parallel to the margin. The proponents are strongly urged to provide evidence in support of their assumption that there is a significant degree of N-S linearity in basement topography to allay concerns about the lack of a crossing line at IAP-6A.

SSP Consensus #17: SSP determines that all necessary data types are available for four of the six sites proposed for NARM-NV-Add3 (return to Iberia). IAP-6A lacks crossing seismic lines; GAL-1 needs to be reviewed by SSP.

5.5 NEW: Mariana Back-arc Basin (442)

SSP Watchdog: Tokuyama

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

Target Type(s): C: active margin

The Mariana Trough is a north-south elongate, east-west spreading, back-arc basin. Previous drilling efforts have been concentrated along an east-west (spreading-parallel) transect at the latitude where the basin is widest and back-arc seafloor spreading is most fully developed. In contrast, this proposal proposes to core five sites at the northernmost end of the basin, where rifting is thought to be propagating northward through and along the active volcanic arc. The goals are to understand such questions as the initial style of rifting of arcs, the timing of extension, the magmatic evolution of early rifting.

The proponents classified their sites as target type C: active margin. After some discussion, SSP agreed to evaluate these sites as target type C, although the tectonic setting is different from our usual type C targets. Vital data types for target type C are: a grid of intersecting seismic lines, 3.5kHz data, and swath bathymetry or side-looking sonar.

The bathymetric maps in the proposal are presumably obtained by conventional single beam echo sounder. According to the proposal, there are US Navy swath bathymetric maps in this proposed area, plus some SeaMARC II and SeaBeam bathymetry around some sites. It is not clear whether all of the sites meet the criteria of "swath bathymetry or side-looking sonar," nor is it clear whether the Navy data are available for scientific use.

All available seismic profiles are SCS. Judging from the page size photocopies in the proposal, the data don't seem to have very good resolution and or penetration. In particular, it's not obvious on these reproductions where basement occurs. Normally, for target type C, seismic data must be multichannel. Considering the thin sediment cover at these sites (300-500m according to the site summary forms) and proposed shallow penetration, SSP would be willing to discuss using SCS data instead, but only if the SCS data are of adequate quality to accurately determine penetration depth of proposed holes. As an ideal data set in this complex tectonic setting, SSP recommends high resolution seismic data to determine sediment structure and depth to basement, plus deep-penetration

MCS profiles to provide evidence about deep structure such as dipping polarity of detached faults in the different tectonic segments of the propagating rift.

Although not a prerequisite for drilling, SSP notes that it would be useful scientifically to obtain deep crustal P-wave velocity data by using 2 ship experiments such as ESP or OBS refraction survey to clarify a change of crustal structure, focusing on determination of thickness of lower crust corresponding to rifting propagation from south to north.

SSP Consensus #18: A reasonable quantity of a variety of data types appears to exist around the proposed Northern Marianas Rift (442) sites. It's not clear from the small-scale photocopies in the proposal whether the existing seismic data are of adequate quality to define the basement targets.

5.6 North Australia Margin (340-rev)

SSP Watchdog: permanent: Scrutton; acting, Kidd

SSP Proponents: none

Target Type(s): C: active margin

This proposal is to study Neogene/Quaternary collisional tectonism and foreland basin development across the northern Australian Margin. There are three objectives - along-strike variability of the collisional tectonics in this oblique collision system; testing of conflicting models of tectonism and fluid flow in foreland basins; and the nature and timing of the reactivation of old passive margin structures. Six indicative sites are put forward, all in 2000m-3000m of water and with about 1000m penetration: if these are reorganized into transects as suggested by TECP the targets may well change.

There have been no further survey data submitted to the Databank or addenda to the JOIDES Office since SSP last reviewed this proposal in April 1993. The proposal remains preliminary because the sites are only indicative of the types of problems and locations that could be investigated in the region. The acquisition of new seismic data planned for 1993 has not yet resulted in clearly-defined and well-documented site locations being proposed in this Australia - Timor region.

A fair to good regional data set, chiefly MCS lines, exists on which the objectives and indicative sites are based. A large number of oil exploration wells exist on the continental shelf immediately adjacent to the south. Some normal and high-resolution seismic reflection data, cores and hydrocarbon sniffer data exist in parts of the region. There was no mention of other data sets that will be required for site selection and the best use of the drilling results.

At the April 1993 meeting the following consensus arose : "*With only site indications and no specific locations at this stage, SSP simply draws the proponents attention to the Guidelines for the preparation of site documentation for Active Margin sites. Their attention is particularly drawn to the need for intersecting seismic lines in this tectonically complex setting; to the various types of high resolution data required, of which there may be a lack; to the need for heat flow data if the fluid flow objective is pursued; and to the need for core data if reentry is likely.*" Following on from SSP's discussion of PPSP's major concerns over drilling in margin and collisional settings at this meeting, the proponents should be advised at this stage that in addition to SSP's requirements they will almost certainly be expected to eventually supply, for Safety review, maps of commercial well locations, well logs and core descriptions from those holes, ties through velocity determinations to the nearest relevant commercial wells, and heat flow data with which to assess potential hydrocarbon maturation.

SSP Consensus #19: The North Australia Margin proposal (340-rev) remains a preliminary proposal with only site indications and no specific locations. SSP encourages the proponents to submit a mature proposal based upon data that was planned to be collected in 1993. SSP again refers the proponents to the Survey Guidelines for Active Margin sites paying particular attention to the need for intersecting seismic lines in this tectonically complex setting; to the various types of high resolution data required; to the need for heat flow data, and to the need for core data where reentry is likely. The proponents are advised that, in addition to SSP's requirements, they will almost certainly be expected to eventually supply, for Safety review, maps of commercial well locations, well logs and core descriptions from those holes, ties through velocity determinations to the nearest relevant commercial wells, and heat flow data with which to assess potential hydrocarbon maturation.

5.7 NARM Volcanic-II: E. Greenland transect extension (NARM-add2)

SSP Watchdog: permanent: Trehu; acting, Kidd

SSP Proponents: Srivastava and Hinz were members of the NARM-DPG

Target Type(s): B: passive margin, plus F: Barerock, minus swathbathymetry

This is a proposal to complete the EG63 transect of holes with three sites landward of the sites drilled so successfully on Leg 152 in order to provide by offset sampling progressively deeper levels in the volcanic margin dipping reflector sequence. The PCOM Nov/Dec'93 discussion of the results of Leg 152 had questioned whether projected on-land drilling might provide the necessary extension and whether the EG66 Transect or completion of the analogous Voring transect might now be more appropriate. The LITHP Panel chair had suggested that possibly that panel's favored approach might be a leg combining these landward EG63 sites with further Voring drilling (see below). Neither the April'94 LITHP nor TECP panel minutes address these issues raised at PCOM. TECP has globally ranked NARM-VII EG63 extension as #7 and LITHP globally ranked NARM-VII Voring as #7. SSP therefore considered NARM-VII EG63 extension and NARM-VII Voring as separate programs at this meeting, rather than as variants of a single program as in previous meetings.

An extensive site survey package relating to EG63 sites 5,6 and 7 was deposited in the Databank in October 1993. This included track and bathymetry maps and navigation and high quality MCS and shallow seismic profiles. These complement the already comprehensive data package presented to PPSP for Leg 152. (Also deposited in October 1993 were data to complete the survey package for the EG66 transect which is currently not under consideration).

The proponents observe that at sites EG63-5, 6, and 7, the glacial-marine sediment cover is likely to be very thin or absent on the volcanic basalt sequence. They appear uncertain whether hard-rock guidebases or re-entry will be required at any or all of these sites. Because of this ambiguity, SSP has considered both the guidelines for target type B: passive margin, and the guidelines for target type F: barerock drilling, in evaluating the EG63 extension.

Whether or not three hard-rock guidebases are needed for the leg makes a very large difference in budgeting, staffing, operations planning, and time estimates. The proponents must submit determine in advance whether or not these are barerock sites, and should not plan on making this determination from the JR. Basically, the proponents must document in advance of the drilling leg either (a) the presence of sufficient sediment cover for unsupported spud-in and re-entry cone emplacement, or (b) the presence of outcrops suitable for guidebase emplacement. 3.5kHz data were requested by SSP for Leg 152 for

operational purposes because of concerns over glacial debris at the seafloor. Lykke-Anderson reported that on Leg 152 the JR 3.5kHz showed limited to no penetration where a significant sediment sequence was in fact drilled, so 3.5kHz data may be ambiguous in this context. Piston cores, side-looking sonar, or visual data could all contribute to making the case that sufficient sediment exists such that conventional spud-in and re-entry cone emplacement will be possible.

For barerock drilling sites, vital data types according to the SSP guidelines are swathbathymetry, photography or video, and rock sampling. SSP considers that the requirement for rock sampling has been met by Leg 152. SSP is willing to waive the requirement for swathbathymetry, since the relief at EG63 is far more subdued than at the typical ridge crest environment for which the barerock guidelines were designed. However, visual data (camera or video) is absolutely essential to find suitable sites if a guidebase is to be emplaced.

In terms of the SSP guidelines for passive margins, most essential data are in the databank. However, velocity determinations specific to extension sites EG63-5, 6 and 7 will be required. A core will be needed to evaluate surficial sediment conditions at non-hardrock, re-entry sites. 3.5kHz data

SSP notes that the shallow water depths (~400m) may make re-entry or guidebase emplacement more difficult; the proponents should submit any available information on the water currents expected at these relatively shallow-water, in-shore sites.

SSP consensus #20: Most of the geophysical data relating to the science proposed for NARM-VII East Greenland Extension (NARM-Add2) is in the Databank. However, the proponents note that the sediment cover is likely to be very thin to absent, and they appear to be uncertain whether hard-rock guidebases or re-entry will be required. Because of the operational, staffing and budgetary ramifications of guidebase versus non-guidebase drilling, the proponents are asked to document in advance of the drilling leg either (a) the presence of sufficient sediment cover for unsupported spud-in and re-entry cone emplacement, or (b) the presence of outcrops suitable for guidebase emplacement.

6. POTENTIAL FUTURE DRILLING: SGPP

6.1 New Jersey Sealevel II (348add/letter)

SSP Watchdog: Kastens

SSP Proponents: SSP member Mountain is a proponent

Target Type(s): B: passive margin

The continental shelf sites of the New Jersey margin transect already have SSP approval for drilling from a scientific perspective. They were not drilled on New Jersey I (Leg 150) because of safety hazards in shallow water. Data conforming to the new guidelines for shallow water hazards surveys need to be acquired. Proponents should contact PPSP Chair Ball, or the JOIDES Office, for further information about required hazards surveys. See also SSP's discussion of funding of shallow water hazards surveys, section 2.1 of these minutes.

6.2 Bahamas Transect (412-add2)

SSP Watchdog: Sibuet

SSP Proponents: none

Target Type(s): fluid flow sites: A: paleoceanographic; sealevel sites: B: passive margin

Acquisition of vital (high-resolution SCS, 3.5 kHz) and possibly desirable (shallow core) data is planned in May 1994. Appropriate data must be deposited in the Data Bank before July 1, 1994, so that SSP may examine the complete data set during our summer meeting.

SSP received an informal but detailed document discussing several of the questions we had raised in previous communications with the proponents. SSP appreciates the considerable amount of work done by the proponents to answer specific questions but also to increase the scientific value of the proposal. In particular, SSP notices several important points which have been clarified, tackled or planned to be done:

- The problem of the 4.7 Ma Pliocene hiatus has been solved and now, stratigraphic, magneto-stratigraphic and Sr isotope dates are in agreement, reducing this large hiatus to a small hiatus at the earliest Pliocene.

- Concerning fluid flows: At earlier meetings, SSP had expressed concern that the drilling proposal seemed to require siting holes within discharge zones and recharge zones of a fluid circulation cell; yet the proponents had not explained how they would know where those discharge and recharge zones were located prior to drilling. The proponents have thought carefully about the fluid flow problem, and propose three mechanisms. To test these mechanisms, they plan to record a year-long temperature profile at Unda and Clino wells, collect additional water samples, perform pumping experiments and deploy packers for further sampling and model fluid flow circulation. They also propose to determine the presence of fluid flow by using a combination of geochemical and geothermal methods in the proposed holes. Their new strategy is not dependent on knowing the location of discharge zones and recharge zones in advance of drilling. As emerging waters come from cemented slopes but could not be sampled, the proponents suggest drilling a series of three holes at three different sites through soft sediments overlying the cemented ones.

SSP recognizes the validity of the newly-proposed approach for drilling a series of shallow holes to address the fluid circulation problem. However, this approach has only been proposed in an informal communication from the proponents to the SSP watchdog; SSP suggests that the proponents prepare a formal addendum proposing the shallow sites with fluid-flow objectives. In the present informal communication, SSP has no information on the waterdepths of these new proposed sites. SSP cautions the proponents that if the waterdepth at any of the fluid-flow sites is shallower than 200m, they will have to meet special new guidelines established by PPSP concerning hazards surveys for shallow water sites.

SSP Consensus #21: Acquisition of vital (high-resolution SCS, 3.5 kHz) and possibly desirable (shallow cores) data in the region of the Bahamas Transect (proposal 412add2) is planned in May 1994. In an informal communication to the SSP watchdog, the proponents suggest drilling a series of three holes at three different sites through soft sediments overlying the cemented ones, in order to better understand fluid-flow processes. SSP recognizes the general validity of this approach; however, a formal proposal addendum with scientific objectives, water depths, penetrations depths, etc. will be needed before SSP can fully evaluate these newly-proposed sites.

6.3 Benguela Current (354rev, 354add, 354add2, 354rev2)

SSP Watchdog: Farre

SSP Proponents: none

Target Type(s): A: paleoceanography + crossing lines of seismic & 3.5kHz

No data were deposited in the Data Bank since the July '93 SSP meeting. However, the proponents have submitted a revised proposal with new sites. Fifteen sites in 6 transects are now proposed (6 sites w/ 600 m penetration, 9 sites w/ 200 meters penetration). All sites are being judged as paleoenvironmental (Target A) by SSP.

The data package remains incomplete. In addition to the usual Target A datasets, SSP is requiring crossing high-resolution seismic and 3.5 kHz (or Parasound) profiles to identify sites that are minimally affected by mass wasting in this complex slope environment. Based on the sample data, trackline maps presented in the proposal, and data already in the Data Bank, it appears that a high-quality dataset can be assembled for the NAB, MAB, SAB, and NCB transects. The Walvis Ridge and Southern Cape Basin transects lack crossing seismic data, and SSP strongly urges the proponents to vigorously investigate the availability of additional data to support drilling at these important sites. SSP reminds the proponents that in addition to the data listed above, detailed core information in the vicinity of each site, must be deposited in the Data Bank.

SSP recognizes that the drilling program is very ambitious (5,400 m of planned sampling, not counting double APC penetration). The proponents should prioritize their effort to add data to the Data Bank according to their drilling priorities (e.g., the high priority Walvis Ridge drilling necessitates that a significant effort be made to complete that dataset). SSP also notes that site NCB 1 lies in 180 meters, and should be moved downslope to >200 meters to avoid additional hazard survey requirements for shallow water drilling.

Submission of a complete data package to the Data Bank by July 1, 1994 will ensure full consideration of this proposal for the FY '96 prospectus.

SSP Consensus #22: A revised proposal submitted in 12/93 indicates high likelihood that a complete dataset can be assembled to support 1 full leg of Benguela Current (354) drilling, although lack of drilling time and/or lack of data is likely to require the elimination of some sites from the present ambitious 6 transect/15site drilling plan. While some data reside in the Data Bank, the dataset remains far from complete. Crossing high resolution and 3.5 kHz (Parasound) seismic lines and core data are generally missing. While complete datasets to support NAB, MAB, SAB, and NCB transects appear to exist and be of high quality, SSP urges the proponents to identify additional data to support the Walvis Ridge and Southern Cape Basin transects.

7. POTENTIAL FUTURE DRILLING: LITHP

7.1 Caribbean (384rev3/408/411/415rev/434)

SSP Watchdog: Mountain

SSP Proponents: Peterson is a proponent for proposal 434, Cariaco

Target Type(s): sediment sites type A: paleoenvironment; basement sites type D: ocean crust (>400m sediment)

Several revisions to existing Caribbean proposals arrived in the JOIDES office by Jan 1 of this year (#384Rev3, #408Add2, #415Add2), but all have been re-assembled into two documents that emerged from a JOI/USSAC workshop in Puerto Rico in February. Data readiness pertaining to the workshop reports was examined by SSP at its April meeting. The Panel acknowledges the considerable efforts of the many proponents responsible for this consolidation, and looks forward to a concise one or two formal proposals and complete data package(s) for review at its next meeting in July.

Because of the complexity and preliminary nature of the workshop documents under review, SSP chose to examine data on hand concerning the basement targets

described by Duncan et al. (March 24, 1994) separate from sites with objectives that concentrate on the sediment column and are described by Sigurdsson et al. (March 24, 1994.) For the purposes of SSP review, a one-leg scenario of combined basement and sediment drilling objectives vs. a two-leg scenario broken along LITH and OHP themes is irrelevant; the mandate of the Panel is merely to assess the data adequacy of proposed sites regardless of leg organization. To clarify the objectives and relationships between the many sites discussed in the two workshop reports, the following table was prepared; the proponents are strongly urged to review, edit, modify, and use this general format in their next submission to SSP to ensure clear understanding among all concerned. All sites under consideration are listed in the first column. Primary and alternate basement targets are noted in columns 2 and 3; primary and alternate sediment sites in columns 4 and 5. Where sites are duplicates of DSDP Leg 15 sites, the 3-digit number of the latter are shown. For alternate sites where the primary site was noted in the workshop reports, the primary name is shown in the alternate column.

Site	LITH prim	LITH alt	OHP prim	OHP alt
A1	•			
B1	•, ~151			•, S7
C1	•			
S1				•, S2a?
S2a			•	
S3			•, =152	
S3a		•, B1		•, S3
S5/NR8				•, ?
S6	•		•	
S7		•, C1	•, =146	
S7a		•, C1		
NR1/2			•	
NR4			•	
NR7				•, ?
NR9				•, ?
CB1			•	

The proponents should note that the basement sites must follow the SSP data type guidelines appropriate to target type "D" (open ocean crust with sediment cover >400 m), and the sediment sites to target type "A" (paleoenvironment). For sites with combined objectives, obviously, data adequacy must satisfy both sets of criteria.

The proponents are encouraged to submit their best possible data packages to the Data Bank well before the July 1 data deadline to enable all information to be identified, logged, and prepared in time for SSP review at the July meeting. SSP recommendations will at that time be forwarded to PCOM for consideration at its August meeting where the list of possible 1996 drilling legs will be established. Two sets of survey data (a funded cruise aboard the *R/V Ewing* led by J. Diebold and N. Driscoll, scheduled for early 1995; another potential cruise to be requested for support in a proposal to NSF [A. Droxler, pers. comm. April 8, 1994]) may eventually provide information relevant and useful to ODP drilling in the Caribbean. The proponents are urged to remain in contact with these survey colleagues and, if asked, contribute suggestions regarding survey design. They are reminded, however, that data evaluation crucial to 1996 drilling will be completed at the SSP meeting this July.

There is a range of data availability, quality, and relevance to drilling the Caribbean objectives outlined in the Duncan et al. and Sigurdsson et al. documents (and in part

summarized with Site Summary forms [L.Abrams, pers. comm., April 5, 1994]). In general, the data required for drilling basement objectives are nearly complete and the Data Bank expects a complete package will be available in July. The proponents are reminded that regional gravity data is a recommended data type for target "D" that would aid both site assessment and post-cruise interpretation if crustal thickness is a feature of interest as the proponents describe. The proponents must be especially attentive in labeling proposed drill site locations on MCS profiles and accompanying 3.5 data; these data types are encoded in shotpoint and time of day, respectively, and their correlations were not readily apparent with the preliminary data examined in Brest. The grid of CASIS profiles surrounding Sites A-1 and B-1 are of good quality; migration and deposition of more lines within each grid would be useful. In particular, accurate sound velocities will be critical to predicting and interpreting seismic-lithologic correlations at Site A-1; the proponents are urged to address this issue. 3.5 kHz data across Site B-1 is said to exist, and must be deposited. Site C-1 is crossed by MCS data collected during C1904, but was not examined by SSP. The proponents are reminded that the Data Bank does not routinely archive data collected by Lamont-Doherty; the proponents must assemble these data for submission themselves, or seek the advice of the Data Bank staff. Site S-6 is the fourth basement site proposed by the Caribbean Workshop. If the origin of acoustic layering beneath B" is sought, SSP suggests the proponents consider re-locating this site 10 - 20 km SW along Line CT1-12a.

Survey requirements for the sediment objectives (target type "A") include hi-res SCS, 3.5 kHz echosounder profiles, and piston cores. Some of these are lacking at the proposed paleoceanographic sites. SSP is concerned with the lack of bathymetric and/or side scan imagery, especially in those cases where proposed sites are NOT reoccupations of DSDP Leg 15 sites (e.g. proposed sites S-1 and S-2a) where local re-deposition from topographic highs in the former and slope failure into a local canyon in the latter could pose problems. To maximize chances for a continuous and representative paleoceanographic record, sites should be located with the knowledge of local topography that such data provide. SSP awaits detailed location maps to confirm that lat/lon of all proposed sites correspond to reported locations on accompanying profiles (e.g. site S-5 does not appear to fall on seismic line CT1-28B at sp 4500.)

SSP Consensus #23: The Caribbean workshop participants are commended for pooling their resources and making headway towards a coherent Caribbean drilling plan. SSP looks forward to reviewing a more complete data package in the context of thematically-focused proposals at its next meeting. A preliminary assessment suggests that an adequate data package can probably be assembled for the basement objectives; it is not clear at this time whether all of the sediment-objective sites can be adequately documented with existing data.

7.2 Sedimented Ridges II (SR-Rev2)

SSP Watchdog: Srivastava

SSP Proponents: none

Target Type(s): E: open oceanic crust (<400m sediment) with additional requirements for high temperature environment.

There has been no change in the site survey status of this proposal since our last meeting in Nov. '93, at which time we stated that most necessary site survey data for Sedimented Ridges II (SR-Rev2) exists in the data package prepared for Leg 139. The lead proponent is aware of our two concerns which were made to him after our July meeting and he and his colleagues are working on these problems. The proponents should send copy of their calculations on the expected thickness of the sulfides at the prime site to DB as soon as possible. Possibilities still exist of collecting some data from submersibles at the proposed sites. SSP appreciates the lead proponent keeping SSP informed of the work

which is in progress and look forward to hearing from him before our next meeting scheduled in July '94. SSP reminds the proponents about July 1, 94 as the deadline for sending additional data to DB for evaluation of the readiness of the proposal for its inclusion in the 'FY 96 prospectus.

SSP Consensus #24: Most necessary site survey data for Sedimented Ridges II (SR-Rev2) remains in the package prepared for Leg 139. There may be a possibility to collect additional submersible data in this region prior to drilling, which would further strengthen the data package.

7.3 NEW: East Juan de Fuca Hydrothermal (440)

SSP Watchdog: Srivastava

SSP Proponents: none

Target Type(s): all sites type "E: Open oceanic crust (<400 m sed. cover)" with additional requirements for high temperature environment.

This is a very well designed experiment to investigate three representative hydrothermal systems in a relatively well-surveyed and tectonically-understood region. The regions include (a) transition zone between sediment-free and sediment covered crust, (b) uniformly flat-lying basement covered by uniform thickness of sediments, and (c) rugged basement topography with large variations in sediment thickness. The drilling results from such an experiment will provide new insights into the fundamental physics of the relationship among fluid flow, alteration, thermal structure and heat flow during the evolution of the oceanic crust. A set of holes in each region will be drilled to sample pore fluid in the sediments, to measure temperature and pressure and install CORK instrument packages in some of the holes. Minimum penetration in the basaltic crust will be made in order to minimize drilling disturbance, allowing pressures and temperatures to recover to formation conditions in a relatively short period of time. Even though the initial penetration will be shallow, some of the holes will be equipped with re-entry systems so that these holes could be deepened at a later date to get a complete section of layer 2A.

The main proponent has informed SSP about their plans for carrying out additional measurements of heat flow, seismic reflection, refraction and some submersible dives in the proposed region of drilling during two cruises in 1995. It is most commendable for the proponents to do so as it will definitely give a better picture of the sites where the drilling is to be carried out. However, as far as can be gathered from the site summary forms supplied with this proposal, enough measurements of the fundamental parameters (e.g. MCS, SCS, velocity, 3.5kHz, heat flow, magnetics, gravity and core data) exist at each of the proposed transects that it would be to the advantage of the proponents to supply the data bank copies of relevant data from each transect by July 1, 1994 deadline, so that the proposal can be judged for its readiness for inclusion in the drilling schedule for 1996.

In order to locate precisely the drill ship at CC sites it will be desirable if the proponents can drop an acoustic beacon or sonar reflector at the proposed sites if at all possible during the submersible cruise. It is realized that this may not be possible if the ship involved in detailed site survey is equipped to do only surface measurements subsequent to the submersible cruise. This is mentioned merely to make the proponents aware of the difficulties which have been experienced in locating very small target sites. Proponents may contact ODP/TAMU for additional information about acoustic beacons or sonar reflectors.

SSP notes that modification to the CORK package will be carried out to facilitate lowering it into the holes; pressure and temperature measuring equipment will be modified as well. SSP would advise the proponents to keep DMP aware of these modifications.

SSP Consensus #25: SSP is pleased to see such a well-designed and well-documented experiment to study hydrothermal circulation in the oceanic crust on the Eastern Flank of the Juan de Fuca Ridge (440---). Judging from the site summary forms and the details given in the proposal it appears that requisite data seem to exist for each transect, although no data package has yet been submitted. Additional heat flow, reflection, refraction and submersible data to be collected in 1995 will greatly strengthen the understanding of the area, but are not prerequisite to scheduling or drilling.

7.4 NEW: Australia-Antarctic Discordance (426)

SSP Watchdog: permanent: Toomey; acting, Kastens

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

Target Type(s): E: open oceanic crust <400m sediment

This new proposal seeks to drill an array of holes on the northern flank of the Southeast Indian Ridge to define the plan view shape of the geochemical boundary between the Pacific and Indian basalt geochemical provinces. The location and shape of the geochemical boundary will be compared with a geophysically anomalous region. The geochemical boundary is well defined on zero age crust, and the proponents wish to know whether the boundary has migrated through time or has been fixed. A secondary objective is to sample the basalt erupted during ultra-slow spreading during the earliest phase of the SEIR spreading.

The drilling strategy involves narrowing down the geochemical boundary by an iterative process, with the position of later sites chosen based on geochemical analyses of rocks recovered at early sites. As a consequence, the proponents will need to propose and document far more sites than will ultimately be drilled.

All of the holes are proposed as single bit holes to achieve about 100 m of penetration into basaltic crust, beneath <100 m of sediment. As is usual for oceanic crust targets, SSP will require seismic data of sufficient quality to accurately define the depth to basement (for sites where the sediment is significantly <100m, this requirement might be met by 3.5kHz data). In addition, SSP will require magnetic data, because the drilling strategy is hinged around accurately locating the sites with respect to flowlines and isochrons.

Gravity data and MCS data (scheduled for collection on an upcoming site survey cruise) will be extremely useful in comparing the location of the geochemical boundary with geophysical phenomena (gravity low, regions of thin crust); however, these data types are not prerequisite for drilling.

SSP Consensus #26: For the array of shallow holes into oceanic crust outlined in proposal 426 (Australia-Antarctic Discordance), SSP will need seismic data of sufficient data to accurately define the depth to basement, plus magnetic anomaly data of sufficient quality to lay out an array of holes tied to specific flowlines and isochrons. The proposed complicated if/then drilling strategy means that a larger than usual number of potential sites must be identified and documented.

7.4 NARM volcanic II: Voring

SSP Watchdog: permanent: Trehu; acting, Kidd

SSP Proponents: Srivastava and Hinz were members of the NARM-DPG

Target Type(s): B: passive margin

Since no new data has been submitted to the Databank since the Nov'93 meeting, SSP reiterates its consensus at that meeting on the additional sites proposed for the Voring Margin:

SSP Consensus #27: The Voring margin data package lacks critical items: (a) no seismic data is in the Data Bank for site VM-5, although one line exists, (b) basement is not identifiable with confidence on the seismic line across VM-6, and (c) neither VM-5 or VM-6 has crossing seismic lines or a grid of seismic lines, although the structure can be expected to be three-dimension in this marginal setting.

8. POTENTIAL FUTURE DRILLING: OHP

Note: the top ranked proposal in the OHP '94 Global Ranking was the Caribbean Ocean History leg arising from the Caribbean Workshop. The Caribbean workshop, and a variety of potential sites and legs arising from it, are all discussed together under item 7.1 above.

8.1 California Margin (386-Rev3,422-Rev,386-add2)

SSP Watchdog: permanent: Camerlenghi; acting: Lykke-Anderson

SSP Proponents: none

Target Type(s): A: paleoceanographic

At the July and November 1993 meetings, SSP noted that the data package was far from complete, lacking 3.5kHz and coring data at many sites, and also that many of the seismic data were of poor quality. Since our last meeting, the proponents have submitted a package of 3.5 kHz data for preliminary evaluation of the seafloor and subbottom conditions at some of the proposed sites. The forwarded data indicates that complicated topographic conditions can be expected at some of the sites, e.g. CA-3 and CA-7. In conjunction with that it can be expected that the depositional patterns of the sediments are complicated.

SSP has been advised that new site survey data will be collected in 1994 and 1995 on a dedicated site survey cruise, plus occasional days on ships of opportunity. Because of the complex topography and consequent anticipated complex depositional patterns at least some sites, SSP recommends that the new 3.5 kHz data be measured in dense grids at the sites, together with swath bathymetric recordings. We reiterate our previous advice, that for sites located at <1000m water depth, 3.5kHz data, high quality high-resolution seismic grids, and sidescan sonar data would be valuable to evaluate the possible presence of gas. The panel draws the proponents attention to the possibility of man-made hazards (cable routes, dumpsites) in this heavily-trafficked, inshore region.

SSP Consensus #28: 3.5 kHz data have been submitted since last meeting, but the site survey package for California Margin (386-Rev3,422-Rev,386-add2) still remains incomplete. New data will be acquired in 1994 and 1995.

8.2 Sub-Antarctic SE Atlantic transect (430)

SSP Watchdog: permanent: Camerlenghi; acting: Peterson

SSP Proponents: none

Target Type(s): A: paleoceanographic

No new data concerning the Sub-SAT proposal have become available since the initial SSP review at the April 1993 meeting, and the program in its present form does not possess an adequate survey data package. Sub-SAT sites are tentatively located at present on existing Vema and Corned seismic lines of rather poor quality, though piston cores are

available from most locations and give indications of near-surface lithologies. SSP communications with the lead proponent indicate that a site survey proposal is currently being prepared for submission to NSF-ODP for the May 1 deadline. The proponents have also been attempting to determine whether data exists from R/V Polar Stern cruises to the area. SSP reiterates its earlier request that the site survey plan be prepared according to guidelines and data requirements for Type A (Paleoenvironment) targets.

SSP Consensus #29: New data still need to be acquired for an adequate site survey data package for the Sub-SAT Transect (proposal #430), and proponents are currently writing an NSF proposal to obtain necessary funding. SSP does not anticipate that an adequate data package can be assembled in time for FY'96 scheduling.

8.3 NEW: Southwest Pacific Gateway (441)

SSP Watchdog: Peterson

SSP Proponents: none

Target Type(s): A: paleoceanographic

This new proposal calls for the drilling of a large suite of sites (17 sites over two legs) on and around the New Zealand Plateau to study the evolution of the Deep Western Boundary Current (DWBC) system and related water masses in the southwest Pacific. The proposed sites cover a latitudinal range from 35°S to 55°S and a water depth range of 400 to 4900 m. Collectively, they are thought to contain a stratigraphic record of the 25 to 30 m.y. that have passed since plate motions opened the passages south of Australia and South America to deep and intermediate water flow. OHP considers this proposal to address objectives of high OHP priority, but has recommended that the proponents submit a proposal addendum that focuses on a one-leg subset of sites that are most likely to provide documentation of paleoceanographic change in the region.

It appears from the proposal that a large body of site survey data already exists, and that the data are, in many cases, of the requisite type to satisfy data requirements for Type A (Paleoenvironment or Fan) drilling. Seismic profiles shown for individual sites include single channel (airgun) and industry MCS lines that appear to be of good quality. Most sites also have available 3.5 kHz data and nearby cores to characterize surficial sediments. We strongly encourage proponents to begin submission of all required site survey data to the ODP Site Survey Data Bank at L-DEO for sites to be included in their addendum. Because of the likelihood of relatively strong deep currents at some of the western boundary sites, we ask the proponents to include information from current-meter studies, where available. In addition, SSP would like to remind the proponents that data from commercial wells in the area will eventually be needed for safety review.

SSP Consensus #30: Proponents of the SW Pacific Gateway proposal (441) have shown that a large body of potential site survey data exist to support the proposed drilling in the New Zealand Plateau region. SSP encourages the proponents to assemble and submit a site survey data package to the ODP Site Survey Data Bank, in parallel with selection of the subset of sites requested by OHP for a one-leg program. Information on deep water current velocities to be expected in the region is requested. SSP reminds the proponents that data from commercial wells in the region will eventually be needed for safety review.

8.3 NW Atlantic Sediment Drifts: Bermuda/Blake-Bahama (404)

SSP Watchdog: Mountain

SSP Proponents: none

Target Type(s): all sites type A: paleoceanographic

At the July and November 1993 meetings, SSP reported a very sparse data set for this program. Since our previous meeting, data relevant to proposed site BR-1 has been deposited in the Data Bank. These include: 1) a drafted page-size track chart, 2) a scanned narrow-beam echosounder record, 3) marine magnetic data displayed along the track of a 1978 IFP *Resolution* cruise, 4) shotpoint location map of seismic data collected by the latter, and 5) MCS line BER1 and accompanying interpretation also collected by IFP. Item 1 will be useful when along-track indexes (e.g. time of day) are provided to link this navigation to the appropriate data. Item 2 needs to be located on a map and the site that it presumably crosses clearly marked. SSP requests that more of the IFP data be supplied if possible. No alternate site to BR-1 has been designated, and with only a portion of profile BER-1 in the Data Bank, drilling options are limited.

This program still lacks most vital and desirable data for both the Bermuda Rise site (BR-1) discussed above, and for the Blake Outer Ridge sites discussed at previous meetings. The proponent is strongly encouraged to continue to assemble the data that will satisfy requirements for this proposal, and deposit these with the Data Bank before the July 1 data deadline of this year. In particular, we look forward to reviewing data from the November 1993 Knorr cruise.

SSP Consensus #31: The data package for NW Atlantic Sediment Drifts (404) is still sparse. We anticipate receiving additional data for the Blake Outer Ridge sites from a Nov. '93 cruise. At this meeting we saw some data from the Bermuda Rise site (BR-1), but problems remain. No alternate site to BR-1 has been designated, and with only a portion of IFP profile BER-1 in the Data Bank, drilling options are limited.

9. OTHER BUSINESS

9.1 SSP guidelines

At the November 1993 SSP meeting, we had discussed the need to provide more guidance to proponents about sound velocity data. Mountain and Scrutton drafted a statement about sound velocity for inclusion in the Data Bank's document about data formats. After discussion, the following wording was adopted:

"Accurate conversion of seconds of traveltime observed in seismic profiles to predicted meters of sub-seafloor depths at each drill site is essential to operational, safety, and scientific concerns. Consequently, proponents are urged to submit sound velocity data that includes a brief description of how they were derived, where they apply, and an estimate of their accuracy. SSP suggests that the data presentation include a graph of two-way traveltime below seafloor vs. calculated meters below seafloor."

Action Item #5: Data Bank manager Quoidbach to incorporate statement about format of sound velocity data into the next revision of the Data Bank's data format document.

9.2 Feedback to proponents

A check list of items to consider for inclusion in the feedback to proponents is included as Appendix D.

SSP Action Item #6 Data Bank Manager Quoidbach to write to the Co-Chiefs of scheduled legs, reporting the sense of the SSP discussion and enclosing the appropriate section of the draft minutes.

SSP Action Item #7: Watchdogs to write to the lead proponent of all other programs discussed, reporting the sense of the SSP discussion

and enclosing the relevant section of the SSP minutes. A copy of these letters to be sent to the ODP Data Bank.

9.3 Panel membership

There are no vacancies on SSP at this time.

9.4 Next meeting

The next meeting needs to be at least a week after the July 1 data deadline, and a week before the August PCOM meeting. After discussion, the next meeting was scheduled for July 13-15, at Lamont.

SSP Action Item #8: SSP Chair Kastens to request permission from the JOIDES Office for a meeting at Lamont on July 13-15.

Appendix A
SSP Watchdog Assignments
Scheduled Legs

Leg		Prop.	April 1992 (LDGO)	August 1992 (LDGO)	April 1993 (Trieste)	July 1993 (Lamont)	Nov 1993 (Lamont)	April 1994 (Brest)
152	East Greenland Margin	NARM-VI	Mountain	Trehu	Mountain	Trehu	in progress, not discussed	Mountain/Blum
153	MARK Lithosphere	369-Rev2	Hirata	Trehu	Shinohara	Trehu	Kastens	Kastens/Blum
154	Ceara Rise	388 Add	Hinz	Kidd	Kidd	Srivastava	data set complete	Srivastava/Blum
155	Amazon Fan	405-Rev	Kidd	Kidd	Kidd	data set complete	data set complete	in progress, not discussed
156	N. Barbados Ridge	414-Rev	Trehu	Trehu	Camerlenghi	Camerlenghi	Camerlenghi	Quoidbach
157	VICAP-MAP	380-Rev3	Farre discussed MAP only	Farre	Farre	Scrutton	Scrutton	Quoidbach
158	TAG Hydrothermal System	361-Rev2	Louden	Moore	Moore	Toomey	Toomey	Quoidbach
159	Return to 735B (Atlantis II FZ)	300-rev	---	---	Srivastava	Srivastava	Srivastava	Srivastava/Quoidbach
160	Equatorial Atlantic Transform	346-Rev3	Pautot	Camerlenghi	Camerlenghi & Sibuet	Sibuet	Sibuet	Sibuet/Quoidbach
161	E. Mediterranean (Med Ridge & Med Sapropels)	330-Rev	Farre	Farre	Farre	Farre	Farre	Farre/Quoidbach
		391-Rev	Kidd	Kidd	Kidd	Kastens	Kastens	
162	W. Mediterranean (Alboran & Med. sapropels)	323-Rev2	Kastens	Kastens	Kastens	Kastens	Kastens	Kastens/Quoidbach
		391-Rev	Kidd	Kidd	Kidd	Kastens	Kastens	
163	N. Atlantic Arctic Gateways II	NAAG	Larsen	Larsen	Hinz	Hinz	Srivastava	Srivastava
164	Gas Hydrate	423-rev	proposal not yet submitted	proposal not yet submitted	Mountain	Camerlenghi	Camerlenghi	Quoidbach
165	DCS Engineering (Vema FZ: VE3)	376-Rev2	Hirata	Kastens	Kastens	Kastens/Toomey	Toomey	data set complete

Appendix A

SSP Watchdogs
Highly-ranked Unscheduled Proposals

<i>SR '93</i>	<i>FR '93</i>	<i>SR '94</i>	<i>Title</i>	<i>Prop.</i>	<i>April 1992 (LDGO)</i>	<i>August 1992 (LDGO)</i>	<i>April 1993 (Trieste)</i>	<i>July 1993 (Lamont)</i>	<i>Nov. 1993 (Lamont)</i>	<i>April 1994 (Brest)</i>
L-4			Red Sea	086-rev	not highly ranked	not highly ranked	Scrutton	Scrutton	not in FY95 prospectus	not ranked
T-5		T-6	N. Australian margin	340-rev	not yet submitted	not yet submitted	Scrutton	out of geographic area	not in FY95 prospectus	Kidd
		S-1, O-3 (tie)	New Jersey Sealevel II	348-add						Kastens
O-3		O-6, S-7	Benguela Current	354-Rev, 354-Add	Farre	Farre	Farre	Farre	not in FY 95 prospectus	Farre
O-5	O-3	O-2, S-4	California Margin	386-Rev, 422-Rev	Kidd	Kidd	Kidd	Camerlenghi	Camerlenghi	Lykke-Andersen
T-6, S-6		S-2, T-2, L-6	Costa Rica acc. wedge	400, 400-Rev	Moore	Moore	Moore	Camerlenghi	not discussed: not in FY 95 prospectus	Lykke-Andersen
L-12, O-4		L-1, O-1	Caribbean	384rev3, 408-R2, 411, 415-Rev	Mountain	Mountain	Mountain	not discussed: no data package	not discussed: not in FY95 prospectus	Mountain
		S-6		434	proposal not yet submitted	proposal not yet submitted	proposal not yet submitted	proposal not yet ranked	Kastens	
O-6	O-2	O-7	NW Atlantic drifts (Bermuda/ Blake Bahama)	404	Mountain	Mountain	Mountain	Mountain	Mountain	Mountain
O-13			North Atlantic Climatic variability	406	Larsen	Kidd	ranked too low	ranked too low	not in FY95 prospectus	partially merged into NAAG II
S-3	S-2	S-3	Bahamas Transect (sea level & fluid)	412-Add	not yet submitted	not yet submitted	Sibuet	no data package	Sibuet	Sibuet
L-1			Evolution of oceanic crust	420	not yet submitted	not yet submitted	Srivastava	out of geographic area	not in FY95 prospectus	ranked too low
		L-5	Australia-Antarctic Discordance	426	not yet submitted	not yet submitted	ranked too low	ranked too low	not in FY95 prospectus	Kastens
O-7			South Florida Margin sealevel	427	not yet submitted	not yet submitted	Farre	Farre	not in FY95 prospectus	ranked too low
O-2		O-3 (tie)	Sub-Antactic SE Atlantic transect	430	not yet submitted	not yet submitted	Camerlenghi	no data package	not in FY95 prospectus	Peterson
		L-3 (tie)	East Juan de Fuca hydrothermal	440	not yet submitted	not yet submitted	not yet submitted	not yet submitted	not yet submitted	Srivastava

		O-5	Southwest Pacific Gateway	441	not yet submitted	not yet submitted	not yet submitted	not yet submitted	not yet submitted	Peterson
		T-5	Mariana back-arc basin	442	not yet submitted	not yet submitted	not yet submitted	not yet submitted	not yet submitted	Tokuyama
		T-1	W. Woodlark Basin	447	not yet submitted	not yet submitted	not yet submitted	not yet submitted	not yet submitted	Farre
		T-3	Taiwan arc/cont collision	450	not yet submitted	not yet submitted	not yet submitted	not yet submitted	not yet submitted	Sibuet
T-11			Non-volcanic margins II (NARM/Newfoundland)	NARM-NV	Mountain discussed Newfoundland	Mountain	ranked too low	ranked too low	not in FY95 prospectus	not ranked
T-2	T-4	T-4	NARM non-volcanic (Iberian margin II)	NARM-NV	Mountain discussed all Iberia sites	Iberia I discussed by Mountain	Mountain	Mountain	Mountain	Mountain
L-3, T-7	L-4 T-5	T-7, L-7	NARM volcanic II (East Greenland & maybe Voring Plat.)	NARM-V Add2	Trehu discussed Voring & E. Greenland	Trehu discussed Voring & E. Greenland	Scrutton	Trehu E. Greenland & Voring	Scrutton E. Greenland EG63 & Voring	Kidd EG63 extension & Voring
L-4, S-7	L-2 (tie), S-4	L-3 (tie), S-5	Sedimented Ridges II	SR-DPG	Louden	Watkins	Hinz	Hinz	Srivastava	Srivastava
<i>SR '93</i>	<i>FR '93</i>	<i>SR '94</i>	<i>Title</i>	<i>Prop.</i>	<i>April 1992 (LDGO)</i>	<i>August 1992 (LDGO)</i>	<i>April 1993 (Trieste)</i>	<i>July 1993 (Lamont)</i>	<i>Nov 1993 (Lamont)</i>	<i>April 1994 (Brest)</i>

Appendix B

ODP DATA BANK

Data Received

1 November, 1993 - 31 March, 1994

Amazon Fan - Proposal 405-R

-From R. Flood (SUNY): set of 13 page-size navigation and bathymetry for Amazon sites and seismic profile.

-From C. Pirmez (LDEO): MCS profiles. Farnella 815 and Ewing 9209 cruises; Ewing 9209 hydrosweep data.

Bahamas Transect, Proposal 412

-From D. McNeill and G. Eberli (Rosenstiel School of Marine and Atmospheric Sciences): navigation, reports (Straits of Florida) and MCS data.

Bermuda Rise - Proposal 404

-From L. Keigwin (WHOI): 3.5 kHz record at the proposed site from Hudson 89-038, navigation map and two bathymetry maps with ship's track from the late 1970 cruise of the IFP ship Resolution; processed MCS and interpretation along part of Resolution line BER-1.

California Margin - Proposal 386

-From M. Lyle (CGISS, Boise State University) and J. Barron (USGS): set of 3.5 kHz data collected on 4 cruises - 1969 Scripps SCAN 1 site survey for DSDP leg 5, the OSU 1982 cruise W8209B, USGS Farnella 1984 cruise (primarily legs 2 and 3) and USGS Lee 1990 cruise. Also included where possible, are trackline maps that show the locations of proposed drillsites and of the 3.5 kHz tracklines.

Caribbean - Proposals 415-Add 2, 384-R2

-From A. Mauffret (Université Pierre et Marie Curie): tape with navigation for Casis cruise 2511 (shot points) and MCS profiles for lines A3, A4, B5, B8 and C1.

-From P. Ganey-Curry (The University of Texas at Austin): MCS and 3.5 kHz data for lines VB1-CB, SA, VB3-NE, SA, C6-2B-1, 2B-2, GT2-52E, CT1-11D, 12A, 12B, 28B, 40A, 40B; location maps and 8mm tape with 6 cruise files in MGD77 format.

Ceara Rise - Proposal 388-R

-From G. Mountain (LDEO): EW9209 cruise: 2 large color bathymetry maps from hydrosweep; 7 (page size) bathymetry maps; navigation with sites; plot of core locations.

Eastern Mediterranean - Eratosthenes, Proposal 433

-From K. Hsü (Ecole Polytechnique Fédérale de Zurich): 2 gravity and bathymetry maps.

Equatorial Transform Margin, Proposal 346-R3

-From J. Mascle (Laboratoire de Géodynamique Sous Marine): MCS, SCS, 3.5 kHz, bathymetry and navigation data; safety report for Leg 160; MCS lines MT-1, MT-2, MT-5 from 1990 Equasis cruise (LE NADIR).

Med. I, Proposal 330-Add4

-From F. Werner (Geologisch-Paläontologisches Institut und Museum): sidescan and 3.5 kHz (deep-towed SBP) records.

-From von Huene, R. (GEOMAR): seismic lines (brute stack) of data being processed at GEOMAR, crossing Eratosthenes Seamount.

Med. Sap., Proposal 391-R

-From B. Rinoldi (Universita degli Studi di Milano): core description of core MT 7.

-From G. de Lange (Institute for Earth Sciences Utrecht): navigation, SCS profiles and 3.5 kHz for sites 4A/4C, and 6A.

-From M.B. Cita (Universita degli Studi di Milano): core description of core MT 7.

NAAG II, Proposal 406

-From P. Manley (Middlebury College): MCS profiles from EW9302 cruise. Also tape with hydrosweep data.

-From Oppo, D. (WHOI): plot of Tydeman navigaton - Feni Ridge Lines 4, 5 and 6.

NAAG II, Proposal 416 (Svalbar)

-From A. Solheim (Norwegian Polar Institute): navigation, 3.5 kHz, SCS, MCS, magnetics, heat flow, SeaMARC II coverage, Seabeam, hydrosweep and Gloria coverage, report of Hakon Mosby/Mobile Search cruise (1987), gravity and core data.

NARM II - Proposal 393

-From C. Marcussen (Geological Survey of Greenland): navigation, bathymetry, sediment data and MCS profiles.

N. Barbados, Leg 156 - Proposal 414

-From T. Shipley (UT at Austin): 3D survey maps and 8-1/2 X 17" seismic sections - Ewing 9207.

Return to Site 735-B, Atlantis II F.Z., Proposal 300-R

-From H. Dick (WHOI): navigation for RC2709 site survey cruise, magnetic anomaly identifications and seabeam map for Atlantis II Fracture Zone, seabeam map and high resolution gridded magnetics for Site 735-B area.

TAG, Proposal 361-R2

-From S. Humphris (WHOI): current meter data, summary diagrams and a summary of the results from the TAG area for Leg 158 data package.

-From Becker, K. (RSMAS, Univer. of Miami): summary of results of Alvin heat flow survey of TAG active mound.

-From Humphris, S. (WHOI): Safety Package for Leg 158.

-From Rona, P. (NOAA): bathymetric data for TAG area.

Vema Fracture Zone, Proposal 376

-From K. Kastens (LDEO): EW9305 Cruise Report.

VICAP/MAP

-From P. Weaver (Institute of Oceanographic Sciences, Deacon Lab.): Safety package captions.

-From A.B. Watts and J. Collier (Oxford University): CDP track chart for CD 82 showing the location of seismic profiles and proposed VICAP drill sites; brute stacks of CD 82 lines 14, 16 and 21 and swath bathymetry (SIMRAD EM 12 (single) data in the vicinity of VICAP sites 1a, 3, 4 and 8.

Other:

From TAMU: video tapes from various Resolution cruises.

Appendix C

VICAP Data Still Outstanding		
Site	Missing Vital Data	Missing Desirable Data
VICAP -1a (New site, Priority 1)	- M24 Parasound - M16 and M24 gravity - Velocity data*	- M24 Hydrosweep (vital type, but banked CD82 swath data makes M24 data desirable) - M16 and M24 magnetics - Core near site
VICAP-1 (Priority 2)	- M24 Hydrosweep data - M16 and M24 gravity - Velocity data*	- M16 and M24 magnetics - Core near site
VICAP-2a (New site, Priority 1)	- M24 Parasound, Hydrosweep - M16 and M24 gravity data - Velocity data*	- M16 and M24 magnetics - Core near site
VICAP-2 (Priority 2)	- M24 Hydrosweep - M16 and M24 gravity data - Velocity data*	- M16 and M24 magnetics - Core near site
VICAP-3 (Priority 2)	- CD82 MCS profile 15 - M16 and M24 gravity data - Velocity data*	- M24 Hydrosweep (vital type, but banked CD82 swath data makes M24 data desirable) - M16 and M24 magnetics
VICAP-4 (Priority 1)	- M24 Parasound - M16 and M24 gravity - Velocity data*	- M24 Hydrosweep (vital type, but banked CD82 swath data makes M24 data desirable) - M16 and M24 magnetics - Core near site
VICAP-5 (Priority 2)	- M16 and M24 gravity data - M24 Hydrosweep - Velocity data*	- M16 and M24 magnetics
VICAP-7 (Priority 2)	- M24 Parasound and Hydrosweep - M16 and M24 gravity - Velocity data*	- M16 and M24 magnetics
VICAP-8 (Priority 1)	- High Res SCS - M24 Parasound - M16 and M24 gravity - Velocity data*	- M24 Hydrosweep (vital type, but banked CD82 swath data makes M24 data desirable) - M16 and M24 magnetics

* May be determined for each seismic line or given as a regional velocity function. An explanation of how the velocity function was derived, and the uncertainties associated with it, should be submitted as well.

6/15/94

Appendix D

SSP Feedback to proponents of potential future legs

- * 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 matrices, 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 "desirable but may be required in some cases (X)*", 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,
- * for proposals that are within the FY'96 area of operations (N. Atlantic, Caribbean, E. Pacific), a reminder of the July 1 data deadline
- * for proposals that are not within the FY'96 area of operations, something like the following "Your program is not within the Joides Resolution probable area of operations for 'FY96, and thus will not be discussed by SSP at our July or Nov. 1994 meetings. The next official communication you will receive from SSP will probably be in follow up to our spring 1995 meeting; however if you have data-related questions between now and then, feel free to contact me or the ODP Data Bank."
- * 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
- * for programs which will be collecting submersible or other very high-resolution data, a suggestion that the proponents may wish to discuss with ODP/TAMU the possibility of emplacing an ODP navigational beacon or sonar reflector to facilitate the reoccupation of small target sites
- * advice on other investigators who may have relevant data in the region,
- * advice on survey ships that may be able to visit the area.