

**FINAL**  
(January 1996)

**JOIDES SITE SURVEY PANEL MEETING**

*November 6-8, 1995  
Lmont-Doherty Earth Observatory,  
Palisades, New York, USA*

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**Members:** Scrutton, Roger (*U. Edinburgh, UK*) Acting Chair  
Casey, Jack (*U. Houston, USA*)  
Enachescu, Michael (*Husky, Canada*)  
Flood, Roger (*SUNY, USA*)  
Lykke-Andersen, Holger (*U. Aarhus, Denmark*)  
Peterson, Larry (*RSMAS, USA*)  
Sibuet, Jean-Claude (*IFREMER, France*)  
Srivastava, Shiri (*GSC Atlantic, Canada*)  
Tokuyama, Hidekazu (*ORI, Japan*)  
Toomey, Douglas (*U. Oregon, USA*)

**Alternate:** Lyle, Mitchel (*Boise State U, USA*)

**Liaison:** Allan, James (*ODP/TAMU*)  
Ellins, Kathy (*JOIDES Office*)  
Mountain, Greg (*PCOM*)  
Quoidbach, Daniel (*ODP Data Bank*)  
Shor, Alexander (*NSF*)

**Apologies:** Ball, Mahlon (*PPSP*)  
Diebold, John (*L-DEO, USA*)  
Hinz, Karl (*BGR, Germany*)  
Paull, Charles (*U, North Carolina, USA*)

**AGENDA**  
JOIDES Site Survey Panel Meeting  
November 6-8, 1995  
Lamont Doherty Earth Observatory,  
Palisades, NY, USA

**1. PRELIMINARY MATTERS**

- 1.1 Introduction and Logistics (Scrutton, Quoidbach/Mountain)
- 1.2 Action items from July 1995 meeting (Scrutton)
- 1.3 Charge and procedures for this meeting (Scrutton)
- 1.4 Ranking of proposals (Scrutton)
- 1.5 Watchdog procedure and assignments (Scrutton)

**2. REPORTS**

- 2.1 PCOM (Mountain)
- 2.2 PPSP (Quoidbach)
- 2.3 JOIDES Office (Ellins)
- 2.4 Data Bank (Quoidbach)
- 2.5 TAMU (Allan)
- 2.6 NSF (Shor)

**3. SITE SURVEY IMPLICATIONS OF RECENTLY DRILLED LEGS**

- 3.1 Leg 162: North Atlantic-Arctic Gateways II (Peterson/Allan)
- 3.2 Leg 163: Volcanic margin, East Greenland (Allan)

**4. SITE SURVEY STATUS OF UPCOMING SCHEDULED LEGS \***

- 4.1 Leg 165: Caribbean Ocean History (Flood/Quoidbach)
- 4.2 Leg 167: California margin (Flood/Quoidbach)
- 4.3 Leg 168: Juan de Fuca Hydrothermal Circulation (Sibuet/Quoidbach)
- 4.4 Leg 169: Sedimented Ridges II (Casey/Quoidbach)

**5. POTENTIAL FUTURE DRILLING: SGPP**

- 5.1 473: Saanich Inlet (Lyle)
- 5.2 348: New Jersey (Flood)
- 5.3 476: Hudson Apron (Flood)

**6. POTENTIAL FUTURE DRILLING: OHP**

- 6.1 354add4: Benguela Current (Lyle)
- 6.2 464: Southern Ocean Paleooceanography (Peterson)
- 6.3 404rev2: Late Neogene Paleooceanography (Lykke-Andersen)
- 6.4 462: Blake Plateau and Blake Nose (Lykke-Andersen)

**7. POTENTIAL FUTURE DRILLING: LITHP**

- 7.1 300: Return to 735B (Casey)
- 7.2 481: Red Sea Deep (Scrutton)
- 7.3 480: Caribbean basement drilling (Casey)
- 7.4 457: Kerguelen Plateau (Tokuyama)
- 7.5 424: Cork Site 395A (Toomey)

**8. POTENTIAL FUTURE DRILLING: TECP**

- 8.1 461add: Iberia 2 (Enachescu)
- 8.2 475: Physical Prop. Accret. Prisms (Sibuet)
- 8.3 447rev: Woodlark Basin (Enachescu)
- 8.4 468: Romanche FZ (Toomey)

**9. OTHER BUSINESS**

- 9.1 Long Range Plans and Greve Report (Ellins)
- 9.2 Feedback to proponents (Scrutton/Quoidbach)
- 9.3 Membership in the panel and attendance (Scrutton/Ellins)
- 9.4 Items for PANCH meeting (Scrutton)
- 9.5 New publication policy (Ellins/Scrutton)
- 9.6 Next two Meetings (Scrutton)
- 9.7 Any other business (Scrutton)

\* --- Legs 164, 166 and 170 are not considered as their data were declared complete during July 95 meeting.

**Executive Summary  
JOIDES Site Survey Panel Meeting  
November 6-8, 1995  
Lamont-Doherty Earth Observatory,  
Palisades, New York, USA**

***Charge and procedures for the meeting:***

The goals for this meeting were to: (1) to evaluate the site survey readiness of proposals in the prospectus for FY97 drilling, including those proposals which were added to the prospectus (i.e. highly ranked) by the thematic panels at their fall meetings; (2) to evaluate the site survey readiness of legs scheduled for drilling; and (3) to assess any site survey issues arising from legs that were drilled since our July meeting. The main customer for the output of this meeting is PCOM, who uses the evaluations resulting from item (1) above as input into designing the prospectus for FY'97 drilling; PCOM will create this Prospectus at their December meeting.

A slightly different procedure for this meeting was followed which was supposed to have allowed more time to the watchdogs looking at the data.

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

**SSP Recommendation # 1 to PCOM concerning submission of alternate sites in ice-infested waters:** SSP recommends to PCOM to direct the JOIDES office that it should let proponents of proposals of ice-infested waters know the requirement that alternate sites are required that might realistically be occupied in the event of ice forcing primary sites to be abandoned with the proposal.

***Explanatory note:***

Prior to Leg 163 alternate sites were submitted at a very late stage. The recommended procedure would ensure that alternate sites are in the system at an earlier stage so that they get processed in the same way as the regular sites.

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

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

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

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

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

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

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

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

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

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SSP consensus # 1: The data set for scheduled leg 165 (Caribbean ocean history) is nearly complete, and could serve as it is if necessary. It is highly desirable, however, that Andre Droxler's R/V EWING SCS data continue to be processed to provide the maximum information for the drilled sections, and that this data and hydrosweep maps be deposited in the ODP Data Bank as soon as possible.

SSP Consensus # 2: All required data for Leg 167 (California margin) is in the data bank.

SSP Consensus # 3: Since the Nov. 1994 SSP meeting, the DB has now received the "Hydrocell 95" cruise report and a report for the PPSP evaluation for Leg 168 (East Juan de Fuca Hydrothermal). During this cruise, 360 km of digitally recorded seismic data and 380 heat flow measurements with a mean spacing of about 200 meters along some seismic profiles were collected. The new processed seismic profiles have not been supplied to the DB except for those within the PPSP report. As the new proposed sites are based on these profiles, the complete set of seismic data acquired during the "Hydrocell 95" cruise must be provided to the DB as well as locations and values of heat flow measurements.

No visual data have been sent to the DB for the scenario in which a hard rock guide base is to be used at site PP6. If an Alvin cruise has been conducted in the area during summer 1995 and if dives have been made in the vicinity of the PP6 site, the proponents are encouraged to submit visual data to the DB in order to help TAMU plan implementation of a hard rock guide-base.

SSP Consensus # 4: Almost all the required data is provided for Leg 169 (Sedimented Ridges II) and most of the suggested data is provided. The proponents have made substantial efforts in responding to SSP's requests and they are thanked for their efforts. In particular, the dive data and tapes are welcome additions. Latitude and longitude marks and site locations should be added to all pertinent dive maps submitted to the DB in the future. The proponents have promised to supply certain additional data such as vent field maps for site location and the newer Ewing-05 seismic data. The final dive maps of the vent fields and data to be submitted will satisfy the previous concern of SSP regarding site location (except Site BH-6). Site BH-6 is, in part, an important tectonic objective, but SSP believes this subsurface target will be difficult to locate. The drill ship seismic and differential GPS capabilities could be used to improve the chances of locating the fault zone during the Leg. Any changes in the Dead Dog Sites because of the new heat flow data will require submission of new site summary forms. The shift between the hydrosweep and older seabeam bathymetry will require a table to be added to the data bank with the corrected latitude and longitude of each site.

SSP Consensus # 5: SSP acknowledges the efforts made by the main proponent about supplying information on the location of hazards in the drilling region of Saanich Inlet (473) and would appreciate keeping TAMU and the panel fully informed on it should additional information become available. SSP realizes proponents' inability in supplying 3.5 kHz data. However, SSP feels that as 3.5 kHz data cannot be obtained more attention should be paid to re-processing the SCS data to expand the section proposed to be drilled and to enhance the resolution. SSP notes that the digital recording parameters should allow for significant improvements in resolution provided that the source had sufficiently high frequency content. The proposal is ranked as 1A for its site survey readiness.

SSP Consensus # 6: Newly submitted seismic data will substantially fulfil the needs of a shallow water hazards survey for drilling on the New Jersey Shelf proposal (348). Additional needed side-scan sonar data will be collected in spring 1996. The proposal is ranked 2B for its site survey readiness.

SSP Consensus # 7: New data and sites were submitted to the Data Bank for the Hudson Apron proposal (476) recently. Based on these data, we note that 1) the drilling plan needs to be better tied to the study as proposed, for example through the interpretation of seismic profiles, (2) additional information on the morphology of the near-surface and buried failures needs to be provided, and (3) the acceptable spacing between cored sites and LWD sites for both scientific and safety reasons needs to be addressed. Much of the required data, with the exception of a multibeam survey, may exist in this region because of prior hazards surveys. Because of this, a rating of 2A is suggested; however, this rating may change after proponents evaluate existing data in the region. The proponents suggest that new multibeam and sonar data might be collected, but no firm plan is provided.

SSP Consensus # 8: Much of the required and recommended data in support of the Benguela Current proposal (354add4) are in the data bank, and SSP appreciates the efforts made by the proponents in responding to its concerns. Additional Parasound and seismic data is scheduled to be collected on the forthcoming cruise on Meteor. SSP urges the proponents to address the data shortcomings from sites MAB-1 and MAB-3; WR-1; NCB-2 and SCB-2 as listed above as soon as possible. The proposal is ranked 2B for its site survey readiness.

SSP Consensus # 9: A site survey cruise scheduled for early 1996 is expected to collect all required data in support of the proposed **Southern Ocean-South Atlantic transect (464)**. A second survey cruise has apparently been approved, but is not yet scheduled. Data Bank holdings for this program are at the moment limited, and the only site currently ready for drilling is SubSAT-3A (a redrill of ODP Site 704). Pending successful surveys, we expect this program to compete favourably for inclusion in the 1997 drilling schedule and is rated as 2B for its data readiness.

SSP Consensus # 10: A set of seismic profiles with penetration exceeding the intended drilling depths at or near the sites are now in the Data Bank for **NW Atlantic Sediment Drift proposal (404)**. The seismic profiles are not considered optimal for precise evaluations of the sites and for regional correlations, but it is accepted that these objectives are met by seismic profiles to be acquired by means of the water-gun system aboard Joides Resolution on its approach to the sites. Because of it the data readiness for this proposal is classified as 1A.

SSP Consensus # 11: The data set for **Blake Nose proposal (462)** can now be regarded complete.

SSP Consensus # 12: SSP appreciates the efforts to supply required data to the DB and the new seismic refraction results for **proposal 300 (return to 735B)**. SSP reiterates that all the required data is now available in order to deepen Site 735B. However, SSP had requested that the proponents edit the JOIDES Resolution video tapes to show the distribution of sediments and slopes near Site 735B. This is important given the potential of a selection of an alternate site location if deepening of 735B does not proceed as planned. Also the 3.5 kHz and SCS data has not yet been supplied and this should be added by the next SSP meeting in March. Offset Sites 735C, D, E, and F to be drilled during the second Leg are not regarded to have the required data. These sites require video or photographic imagery for HRGB offset drilling sites. The proponents are advised that they should make every effort to obtain this data if the offset sites are to be scheduled. SSP is interested in seeing the new 3.5 kHz and SCS seismic results from Dr. Tim Minshull for these sites. The fully processed seismic data should be deposited in the DB as soon as possible. The proponents are encouraged to submit the data and results. Track lines and sections should be submitted with sites clearly marked. These should be submitted prior to the March 1996 SSP Meeting. These data and results of any new site survey data will be important for continued evaluation of the second Leg of the proposal by SSP and the thematic panels. The proponents are asked to keep SSP apprised of the pending site survey proposal's funding status.

SSP Consensus # 13 : SSP congratulates the proponents on preparing an exciting proposal for the **Red Sea Deep (481)**. It is necessary for the proponents to prepare for the Data Bank fully annotated maps and sections, velocity data, core logs, heat flow measurements and any other required data for the appropriate target type of each site. SSP believes that all these data already exist. Site Survey readiness is judged as 2A.

SSP Consensus # 14: SSP thanks the proponents of **Caribbean Basalt proposal (480)** for responding to the concerns regarding velocity estimates for Hole VB1 and VB2, sediment thicknesses at Sites BR1 and BR2 and seabed characteristics. SSP however request error estimates on velocities to be provided, given the likely seismic anisotropy in layered sediments. These estimates are important because VB1 and VB2 lie near the depth limit for drilling with the JOIDES Resolution (~7000m). SSP is still not convinced of the sediment cover and thicknesses over Holes BR1 and BR2. These sites could ultimately be classified as bare rock with sufficient data. It is noted that the seismic data provided is not satisfactory for evaluating the sediment cover. We will await the migrated seismic sections over these sites that are promised and the results of the Nautila program which should firmly establish the nature of sediment cover for the two sites. The Nautila site survey is regarded as essential for sites BR1 and BR2 and the proponents are encouraged to submit results from the Nautila Program as soon as possible. If sediment cover turns out to be minimal at BR1 and BR2, coordination between the Nautila Program and TAMU would be advisable in case markers are needed to locate sites. We also note that sites are not marked on the hydrosweep bathymetric maps provided. These data and any new site survey data should be submitted by the April, 1996 SSP meeting. The proposal is rated as 2B for its site survey readiness.

SSP Consensus # 15: SSP is concerned about prioritization of the drill site into two legs for **Kerguelen Plateau proposal (457)** subsequent to the thematic panel meeting, which may effect their ranking of this proposal. SSP recommends that suitable addendum be submitted to the JOIDES Office so that it can be ranked again by thematic panels during their Spring meeting. A number of essential data items are still lacking. The proponents should make every effort of sending these items to the Data Bank as soon as possible if available. Details of the proposed work to be carried out in 1997 be supplied with the addendum for proper evaluation. SSP does not feel comfortable in rating this proposal for its readiness because of the uncertainties which underlie drilling at some of the sites. As a result the proponents may wish to change their drilling strategies from what is listed in the letter. However, SSP has provisionally rated this proposal according to the legs proposed. If we eliminate drilling at the two shallow water sites, proposed for Leg A, for safety reasons with the hope that alternate sites on existing data will be chosen

to meet the objectives, and considering that some of the required and recommended data will be collected on the proposed French cruise in 1997, we rate this leg of the proposal as 2C for site survey readiness. Leg B propose to drill two deep offset holes for which appropriate data do not exist. Plans call for collecting this data in early 1997 and therefore this Leg is rated as 3B.

SSP Consensus # 16: The data package for **Corking Site 395A (424-REV)** is complete and receives our most celebrated ranking: 1A.

SSP Consensus # 17: A nearly comprehensive data base for site assessment exists in the Data Bank for **Iberia II proposal (461-add)** for the older sites and for the newly proposed alternate location IB-8B. The addendum to 461-Rev contains only provisory top of the Basement map and page size brute stack MCS. Fully processed record of data collected during the recent cruse must be submitted in adequate form to the DB as soon as available. The site survey readiness for this proposal is considered as 2A.

SSP Consensus # 18: All proposed sites in **proposal 475 (physical Prop. accret. prisms)** are a reoccupation of already drilled sites in North Barbados or sites planned to be drilled on the Costa Rica margin during Leg 170 except for proposed site NBR-8 which is offset about 1 km from site NBR-9 (949B). The SSP is concerned by the fact that NBR-8 is supposed to be drilled 250 m deeper than site NBR-9 (949B). In that case, proponents must be aware that some previous drill hole with core recovery might be required, depending on the guidance of safety rules which could be set up for logging while drilling holes. The proposed sites belong to the drilling environment target C (active margin). The site survey readiness of this proposal is judged as 1A.

SSP Consensus # 19: SSP reiterates that a nearly comprehensive data package supporting drilling in the **West Woodlark Basin (447)** now exists in the Data Bank. A few items like final migrated cross lines are soon to be supplied. These lines together with visual and further coring data for site 3A, will complete the data package. Reinterpretation of this site in light of the recent coring results may change its drilling strategy. One of the sites may need PPSP preview. Site survey readiness is classified as 2A.

SSP Consensus # 20: The data package for **Romanche Fracture Zone (468-REV)** proposal is not yet complete. For sites ROM1b, ROM2b and ROM3b, on limestone caps, the proponents need to clarify their spud-in strategy, and provide visual data if a hard rock guidebase is needed. Additionally, high resolution SCS and 3.5 kHz data need to be collected and submitted to the Data Bank. Sites ROM4b and ROM5b, proposed for 1000m penetration into a thick pile of deformed sediments of unknown origin, could present safety problems. The data package is rated as 2B.

**Minutes**  
**JOIDES Site Survey Panel Meeting**  
**November 6-8, 1995**  
**Lamont-Doherty Earth Observatory,**  
**Palisades, New York, USA**

**1. PRELIMINARY MATTERS**

**1.1 Introduction and Logistics (Scrutton, Diebold/Quoidbach/Mountain)**

SSP acting Chair Scrutton welcomed all those present and explained Srivastava's inability to chair this meeting because of his health problem even though he was able to come to the meeting. Quoidbach and Mountain mentioned about the arrangements for communications, meals, and the new set up for the meeting and other local events in which all those willing to participate.

**1.2 Action items from July 1995 meeting (Scrutton)**

All action items were carried out by the designators and discussion on some of the items was deferred to corresponding items in section 9.

**1.3 Charge and procedures for the meeting (Scrutton)**

The goals for this meeting were to: (1) to evaluate the site survey readiness of proposals in the prospectus for FY97 drilling, including those proposals which were added to the prospectus (i.e. highly ranked) by the thematic panels at their fall meetings; (2) to evaluate the site survey readiness of legs scheduled for drilling; and (3) to assess any site survey issues arising from legs that were drilled since our july meeting. The main customer for the output of this meeting is PCOM, who uses the evaluations

resulting from item (1) above as input into designing the prospectus for FY '97 drilling; PCOM will create this Prospectus at their December meeting.

A slightly different procedure for this meeting was followed which was supposed to have allowed more time to the watchdogs looking at the data.

#### ***1.4 Ranking of proposals (Scrutton)***

There was discussion of the site survey readiness table, which had been developed by SSP at their July meeting, regarding whether it should be modified. Mountain and Ellins both indicated that the table had been very well received by PCOM at the August meeting. Although several SSP members agreed that some categories in the table could be combined, it was decided to leave the table in its present form with the understanding that it could be modified in the future in response to feedback from PCOM. Srivastava reminded watchdogs to include the appropriate classifications in their write-ups. The rankings assigned to the proposals considered at this meeting are given in Appendix A.

#### ***1.5 Watchdog procedure and assignments (Scrutton)***

Watchdog assignments were revised to account for Karl Hinz's absence. Refer to table in Appendix B of watchdog assignments for revisions. Srivastava urged SSP members to review the SSP draft minutes and provide feedback to him.

## **2. REPORTS**

### ***2.1 PCOM (Mountain)***

PCOM met in Portland, OR August 16-19. Rob Kidd was unable to make the meeting; Jim Natland served as Chair. I presented the SSP liaison report during the afternoon of the first day. I noted that the number, size, and complexity of active proposals SSP oversees continues to grow; increasing Data Bank (DB) staff would help proponents, panels and science, and JOI may soon get a request for this from the DB. PCOM had no objections.

PCOM viewed SSP Recommendation #1 (re: delivery of processed SCS to the DB) favourably and drafted a consensus that directs ODP/TAMU (through JOI) to deliver these data to the DB. Tim Francis expressed concern about "publishing rights" with shipboard data sent to Lamont, but I stressed that data submitted to the DB is considered proprietary unless specifically authorized for release by the submitter. The item reads:

"PCOM requests JOI to advise ODP-TAMU to provide both digital electronic and paper copies of the processed underway seismic records collected by the JOIDES Resolution. These records should be provided as soon as possible following the leg on which they are collected. This transfer of data from ODP-TAMU to the ODP Site Survey Data Bank is not to be regarded as covered by the one year moratorium on the distribution of shipboard data."

SSP Recommendation #2 re: suggesting ODP/TAMU present its analysis of seafloor hazards at the PPSP review did not get far. I stressed this would maximize the number of experts looking at the location that a site is moved to because of cables, etc. I relayed SSP's view that the Leg 161 experience relegated to the Science Operator and the Co-Chiefs the task of selecting and evaluating the appropriateness of the re-located site. I suggested it would be better to have this done in the presence of PPSP. Tim Francis said the issue was much more complicated than it seemed, and asked to have a chance to think it over. It was not discussed further at the meeting; I have written him since, but as yet have no reply explaining his position.

Post-mortems of completed legs from SSP's perspective were reviewed. Data readiness for scheduled legs was summarized. I noted SSP's observation that simple details of site location, backup data sets, TDs, etc., as recorded on Site Summary Forms are a quick, easy reference for SSP and the users of the Co-Chiefs' Data Package. I asked that PCOM back the JOIDES Office in its efforts to ensure compliance from proponents in complete, accurate, and timely submission of these forms. Both PCOM and ODP/TAMU thought this was too much micro-managing.

For Leg 163, I mentioned SSP's concerns about the lack of data verifying the nature of sediment cover, and the late selection of alternate sites. I asked Tom Pettigrew, the TAMU chief engineer, what he would like to know before lowering the HRGB here or elsewhere. He said a half-dozen unsedimented, relatively smooth spots each 30 m in diameter with tilts of 15 deg or less, and markers or visual keys of some sort that would locate sites for the HRGB. There seems to be a general misconception among PCOM that simply finding a "level seafloor" with SeaBeam or Hydrosweep is all that is needed for bare-rock drilling. Continuing, I noted concern about the late selection of alternate sites off Greenland. Tim pointed out that this was necessary because of the possibility of ice cover at the primary sites. I said this was understood, but that SSP has two points: data relevant to late site selections like this don't always find their way to the DB, and clearly they do not get reviewed by the thematic panels or by SSP. Tim questioned how far back into the review process one should be expected to go in cases like this. PCOM and ODP/TAMU

thought attempts to structure such unusual occurrences as this were again too much micro-management, and that if done properly the review system was adequate.

I stressed SSP's view that 3.5 data in Saanich Inlet would be valuable in ensuring the site(s) is representative and not full of slumped sediment. A bigger concern of the Operator, however, is anticipated small boat traffic. Boats are to be kept away by a 300 m "exclusion zone".

Fifteen of the 16 proposals SSP had considered for data readiness at its July meeting were discussed by PCOM for inclusion in the prospectus. SSP's choice of 16 had been based on the process of narrowing the globally-ranked thematic proposals to only those ranked 7 or higher and falling within a reasonable geographic area of operations for FY'97 and '98. Both of these cut-off criteria are not easily quantified: the first is based on an estimate of how many proposals SSP can review adequately during one meeting, the second on an estimate of how far the ship will get in a year's time. As a result, without either Shiri or Rob present to explain the process, some PCOM members were uneasy with what they saw as an arbitrary selection process. In particular, attention was drawn to the inclusion of proposal 447 (Woodlark Basin), but not proposal 441 (SW Pacific Gateways). Kathy Ellins noted that the latter was misplotted on the map used by SSP, and in July this proposal appeared to be much farther from potential area of operations than is the case. She described how Shiri and Rob had carefully discussed the SSP agenda, and that both concurred with the final selection of 16 proposals.

The '97 prospectus was determined to include:

proposal	description
300	return to 735B (the 1- or 2-leg scenario not specified at this time)
348	NJ margin Mid-Atlantic Transect
364	Benguela current
404	Neogene sediment drifts - NW Atlantic
447	Woodlark Basin
457	Kerguelen Plateau
461	return to Iberia margin
462	Blake Nose/Plateau
464	S Ocean Paleoceanography
468	Romanche FZ / Vema FZ
480	Caribbean basalt

JOI outlined a proposal (to be endorsed by ExCom and BCOM, I believe) calling for a serious Public Relations effort (a "Communications Strategy") in the next 3 yrs. It includes the hiring of JOI staff and spending targets of \$179K, \$318K and \$326K in FY'96-'98, and does not anticipate new money from NSF. The impact may be some duplication of TAMU public relations efforts and cuts into already flat to shrinking budgets, with increased ODP visibility in educational packages, exhibits, pipelines to popular science publications, etc.

TAMU noted a FY'95 savings of just over \$1M has been achieved due to several factors: unforeseen reduction in fuel costs for the ship, unfilled vacancies at TAMU, and reduced travel. Tim outlined several deserving expenditures to absorb it -- the recently imposed icebreaker to escort Leg 163 (the Danes are supplying one for free for 14 days of 162), the new shipboard cryogenic magnetometer, a new SCS streamer and shipboard plotter.

DCS development continues. Tim projects an approaching crisis with more salaried engineers than engineering dollars for them to work with. There will have to be a reckoning on this item within the year. With a recently hired sub-contractor (Stress Engineering Services, Inc.) \$130K was spent in a design phase up through June '95; another \$320K will be spent developing a controller and computer model for a mock-up evaluation; then the engineering money runs out. Another \$675K is needed to get the system fully operational on a leg in Dec '97.

Another big ticket item that will be competing for funds by next year is Logging-While-Drilling (LWD). It was used first on Leg 156; there are 3 requests for it now --- Leg 170/Barbados prism, NJ II (348-A-rev), and a new unranked proposal to drill near Hudson Canyon off the US east coast (476). The cost for any one of these is from \$200K to \$500K. Because of the short fuse on the Leg 170 request, PCOM has asked for TECP and SGPP scientific comment on its use.

Add to the list of possible expenditures: outfitting the JR with shear rams for severing the drill pipe should uncontrollable gas be encountered on NJ-II, Mid-Atlantic Transect (or elsewhere). The ship would have to be in port for 5 days to outfit and it would cost ~\$200K

Tim reported that the JANUS project is on track. 8 user groups have been set up to evaluate "beta release" versions. Installation on the JR is set for Dec '95; full operation is aimed for 12 mos. after that.

Tim circulated a TAMU report that evaluated alternate drilling platforms. The bottom line is that continued use of the JR is the only sensible choice, with possible "stretch" to accommodate more space and/or riser drilling in post 2003.



The Long-Range Plan was discussed after a presentation by John Mutter from ExCom. The latter group saw a version of the LRP in July and with the advice of the ODP Council (meeting along with them in Edinburgh) decided to take the entire LRP into its hands. A sub-group of ExCom met with JOI Aug 21-25 to revise the document.

ExCom has urged that everyone think about strengthening ODP ties with international programs. Consequently, PCOM drafted a recommendation to ExCom about how to set up a "JOIDES Associateship" with such organizations as the Nansen Arctic Drilling project. This is a group of hi-latitude countries interested, mostly, in climate-related issues; they have their own drilling platform. PCOM suggested 3-yr "associateships" that could include ODP taking care of core curation, safety and survey readiness review, and survey data sharing/archiving, etc., on a pay-as-you-go basis. This is only a suggestion to ExCom to use as a template for designing a formal tie to NAD or others like it.

## **2.2 PPSP (Quoidbach)**

Dan Quoidbach presented the PPSP report as PPSP Chair Mahlon Ball was not present. He reported on the PPSP meeting that was held 14-15 September at SIO. The PPSP reviewed Legs 166 (Bahamas Transect) and 167 (California Margins). No problem with 166. All proposed sites, with the exception of the reoccupation of ODP Site 893 (Santa Barbara), were approved with only minor adjustments in location and target depth in order to avoid potential trap structures. The panel was split on the proposal to re-drill Site 893, and after much debate they voted against the idea by a narrow margin with several abstentions.

DISCUSSION: Mitch Lyle, Leg 167 Co-chief explained that a revised data package for the site has been resubmitted and PPSP has been asked to reconsider the proposal at a future meeting. Jamie Allan of TAMU reminded the panel that the contract that ODP has with Sedco-Forex limits drilling to water depths in excess of 1000 feet (about 300 m). While Sedco was somewhat lenient in the past, recent events on leg 163 are likely to cause them to adhere more strictly to the terms of the contract. Sites F4 and BT of leg 166 will be relocated by Co-chiefs to take into consideration the 1000 foot depth requirement.

## **2.3 JOIDES Office (Ellins)**

Ellins reported that Jim Natland chaired the August PCOM meeting due to Rob Kidd's ill health.

Directly after the PCOM meeting Ellins represented the JOIDES Office at a meeting at JOI of the EXCOM LRP subcommittee (Mutter, Briden, Deitrick, and Mayer) with Ellen Kappel. The purpose of the meeting was to continue the revision of the LRP in accordance with EXCOM's recommendations from their July meeting and then turn the LRP over to JOI for final revision. Preparations for the first meeting of the ODP International Review Committee to be held at LDEO in early September were also discussed.

A meeting was convened at the Geological Society in London to convey the results the ODP drilling over the past decade. The meeting was considered to be a timely opportunity to publicize achievements of UK scientists involved in ODP as it coincided with the start of the NERC/UK review of the program.

JAMSTEC will host a meeting in Japan to continue discussions on OD 21 and the scientific requirements of the proposed Japanese drill ship. Greg Mountain and Jim Natland will represent PCOM. Rob Kidd will not attend.

The two volume FY'97 Prospectus was distributed in early September. Proposals included were selected by PCOM at their August meeting. Selection was based on the four year program plan and site survey readiness. Subsequent to the Thematic Panel meetings in the Fall, four proposals have been added to the Prospectus: 481 (Red Sea Deep), 476 (Hudson Apron), 475 (Physical Properties in accretionary prisms), 424 (CORK 395A).

Rob Kidd appeared on BBC Breakfast News talking about Leg 164. The JOIDES Office has received two visits each from Dave Falvey and Jeff Fox since the August PCOM meeting as part of an effort to enhance communications and interaction between ODP/TAMU, JOI and the JOIDES advisory structure.

DISCUSSION: Not all SSP member were able to get their copies of the two volume of the proposals included in the prospectus. These will be sent out soon by JOIDES. Other informational items were added by panel members.

Srivastava reported that more than 1000 visitors went aboard the JR during the Halifax Port call. Steve Scott gave a public talk. There was the perception that the port call had been less effective than hoped because of rescheduling resulting from the circumstances of Leg 163.

There was general discussion on the evolution of the panels structure as ODP moves forward and as others programs, such as NAD, become involved with ODP.

Jean Claude Sibuet reviewed the French position regarding ODP. As it stands, the French have announced their intention to withdraw from the program in 1998 if changes regarding publications, involvement with other programs, and commercial returns do not occur. The decision will be made in 1996.

## **2.4 Data Bank (Quoidbach)**

Data Bank Manager Quoidbach reported that since the last meeting cruise operations packages had been prepared for Legs 163 and 164, and that the preparation of the Leg 165 package would begin shortly. In the continuing effort to make Data Bank operations more digital, a copy of the SIOSEIS seismic processing package had been obtained for the playback of seismic data tapes. A system for archiving and playback that meets the needs of SSP, PPSP, and the drilling community in general is being developed. It was stressed that no seismic processing would be undertaken, as such processing would shift the burden of quality control of the records from the proponents to the Data Bank. Quoidbach will meet with TAMU personnel skilled in SIOSEIS to train and to work out a system for routine submission of seismic data collected onboard JOIDES Resolution to the Data Bank. The Data Bank reported that some end-of-year funds were made available by JOI for the hiring of a database consultant to improve the data tracking system used in the Data Bank. Funds were also made available for the hiring of student workers to assist in data input and annotation of data packages. Hiring of these personnel will begin soon. Web page development continued, with most of the efforts being put into GUI tools for driving the GMT 3.0 package and CGI scripts for searching the Data Bank's navigation data files.

**DISCUSSION:** Dan noted that the SSDB needs more time between data deadlines and the SSP meetings to properly handle incoming data to be considered by the panel.

The panel gave a vote of thanks to JOI for making funds available for SSDB.

Discussion of SSP's desire to receive seismic data collected onboard JOIDES Resolution at the Data Bank revealed that there is still some confusion surrounding this issue between SSDB and TAMU. Although TAMU has agreed to provide these data in a form that is satisfactory to the data bank, Quoidbach noted that while what has been received is much better, it is still not exactly what the SSDB wants. SSDB does not have the expertise to process the data. Jamie Allan suggested that SSP could consider working with SMP to most effectively resolve the matter. Allan also suggested that Quoidbach should consider visiting College Station.

The discussion resulted in two action items.

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

Roger Scrutton noted that the onboard JR technician should be provided with guidelines to help implement the provision of underway seismic profile data to the SSDB

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

## **2.5 TAMU (Allan)**

Jamie Allan reported on the continuing upgrade of the JOIDES Resolution's Underway Lab, the Winfrog Navigation Program, and other ODP/TAMU News.

Upgrade of the JR Resolution's Underway Lab is continuing with the recent installation of :

- New HP 36" Design Jet Printer. This replaces the Versetec printer and allows large-scale graphics to be printed from any computer on the ship. As an example, shipboard geophysical scientist Sverre Plank used it extensively during Leg 163 to print out processed and interpreted, colour-coded seismic cross-sections which proved instrumental for determining drilling strategy.

- New DAT Drives for data archiving. These are 4 gbyte 4 mm DAT drives, and enlarge our capability for data archival and data removal from the ship by shipboard scientists (we also have 8mm Exabyte).

- New towed magnetometer system. This system, consisting of a Geometrics 886 installed on Leg 164, includes both a new proton precession magnetometer and new electronics. It will significantly reduce electrical noise induced by the ship, and will increase system resolution from 1 nT to 0.2 nT.

Soon (within the next few legs):

- New 6-channel solid-core streamers, filters, and amplifiers. These two new streamers are state-of-the art, replacing existing liquid-filled single channel streamers that leak and are difficult to maintain. The output of the 6 channels will be able to be stacked.

- Migration of Spark 10's with seismic acquisition and processing software to the Solaris 2x operating system.

- New flatbed chart recorders. We would have attempted to replace these with FY'95 funds if they had been available. We are currently reassessing our needs and will attempt to identify funds for their replacement if required.

#### Winfrog Navigation Program:

Upgrades to this program continue to occur with experience, and it is now fully-functioning, including direct archival of magnetic data.

- A new 21" monitor has been installed on the bridge, and it survived the major storm of Leg 163.
- A new differential GPS receiver has been installed in the Underway lab, purchased with a year of US GPS coverage which should cover Legs 164, 167, 168, and 169. P-code service has been pursued, but acquisition of this service is at present problematical on a foreign-registered ship. Other GPS services are being explored, including the Russian Glossnass satellite system which could provide near-P-code resolution. (A. Klaus will give an update on this by e-mail).

#### Other ODP News:

- New Staff Scientist: Gary Acton, formerly an Assistant Professor at the University of New England (Australia). Gary's PhD is from Northwestern, and his specialty is magnetics and modelling of plate movement.
- New Science Operations Staff Researchers: Phil Rumford (former ODP Chemistry Marine Specialist) and Karen Graber (MS in Geology, University of Houston).
- FAMIS budgeting system installed at ODP, allowing project-specific budget tracking. This provides a strong foundation for supporting fiscally project management.
- JANUS Update. There remains a possibility that the JANUS may run out of the currently allotted funds before Underway Geophysics data is addressed. Current information on the JANUS project may be reached through ODP/TAMU's WWW homepage.
- Initial Reports Format- see memo from Ann Klaus, Manager of Publications.
- ODP navigation, SEGY raw seismic data, and filtered, processed seismic data (including both paper printout and computer files) will be delivered to the ODP Lamont data repository starting with Leg 164 (Leg 163 collected no seismic data, and Leg 162 data have already been delivered to the data repository).
- Results of the New Jersey hazards study will be delivered to the PPSP during the November 16-17 meeting.

DISCUSSION: Allan assured SSP that the JANUS project is on track. It is not a routine project, but on the cutting edge and very complicated. He noted, however, that the project goals read like an endless wish list and consequently ODP may run out of funds before all is accomplished. Objectives through to Leg 165 will likely be achieved but probably not beyond at the current level of budgeting. The JANUS project will be discussed at the March SSP meeting. Panel members are advised to get properly informed in advance of this discussion.

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

With regards to publications, TAMU doesn't have the technology to publish the IR volumes in the new CD Rom format. Realization of the publication of IR volumes on CD Rom will be suspended until TAMU can identify funds to implement the ODP community's requirements.

## 2.6 NSF (Shor)

The NSF ODP has not made any decisions regarding survey proposals since SSP's July meeting. Decisions on the most recent round of proposals are planned for November 1995 panel meeting (11/14 to 11/16). Twenty proposals are pending, including six which are jointly considered by ODP and the MG & G programs.

NSF budget information for FY 1996 was presented at the July 1995 SSP meeting and as the US federal budget has not been finalized, there is no change from that report. There is also no information of this point regarding FY '97 budgets.

DISCUSSION: Shor indicated that he could not report on status of the 735B site survey proposal until the Canadians have made a decision on whether they will provide the ROV system at no cost. The Canadian proposal was submitted 10 months late to a program that has been cancelled and to an agency that has received a 35% cut thus Shor is not optimistic that this program will be funded. If funded, a cruise would be scheduled for this spring on the Melville.

## 3. SITE SURVEY IMPLICATIONS OF RECENTLY DRILLED LEGS

### 3.1 Leg 162: North Atlantic-Arctic Gateways II (Peterson/Allan)

Leg 162 drilled a total of eight sites and stretched the operational capabilities of the *Resolution* with a record 6700 m

of core recovery. According to co-chief scientist Maureen Raymo, the site survey data package was quite satisfactory and minor adjustments in site locations could be accommodated with survey data in hand. One alternate site (985; prospectus site ICEP-3) was drilled while waiting for a resupply of core liner from Reykjavik. Site 987 (prospectus site EGM-4) had to be moved east along one of the seismic lines to avoid sea ice near the proposed location, while ice conditions prevented drilling at all on the Yermak Plateau. Overall, however, Leg 162 was a great success and the results of post-cruise studies should become a cornerstone for our understanding of North Atlantic paleoceanography.

Jamie Allan reported that Leg 162 cored over 5 km of core in first month and that the core could not be processed fast enough. He revealed that this is a potential problem on Leg 167 and ODP/TAMU is considering the need to resupply the ship with core liner. Also under discussion is transfer of core off the ship to land for storage.

### **3.2 Leg 163: Volcanic margin, East Greenland (Allan)**

Allan reported on drill pipe incident on leg 163 and the storm.

#### **Drill Pipe Incident**

Prior to Leg 163 a shallow water meeting was held in College Station to discuss strategies for shelf drilling on Leg 163. TAMU engineers decided that the best strategy to deal with potential drill string failure was to locate a 5 inch "weak link" in the drillstring at a particular depth beneath the ship. The remainder of the drill pipe above and below was 5 1/2 inches in diameter.

The chain of events that occurred during the drill pipe incident follows:

- Hole 988 A (Site EG63-1A)
- water depth 272 m
- RCB coring at 32 mbsf
- circulation lost after making a connection
- vertical movement, and rotation lost
- locked out heave compensator
- started pulling in 50 kip increments
- pulled up to calculated overpull of 677 kips (estimated overpulled was > 800,000 pounds or 800 kips)
- 5 inch drill pipe parted 135 m below the ship at the weak link. The pipe was pulled apart like taffy.

After the incident, drilling procedures changed on leg 163. An outside investigation by Dr. Hans Jeuvkamwold (mechanical engineer) resulted in a set of new set of procedures from SEDCO for the continuation of Leg 163. Allan noted that TAMU engineers were not completely comfortable with these procedures which they regarded as problematic as they could result in the loss of control of the drill string.

As a consequence of this recent incident concerns about shallow water drilling on Leg 166, the NJ II proposal, Saanich Inlet and the Great Australia Bight have been raised. Sites on 166 will be moved by agreement with the Co-chiefs. The matter of shallow water drilling procedures will be discussed in a joint meeting between ODP-TAMU and SEDCO on Monday Nov. 16. In preparation for this meeting TAMU is assembling shallow water drilling data to aid safety assessment. The possibility of financial indemnification above the waterline, and other tools and procedures will also be part of the agenda. Allan emphasised that TAMU and SEDCO are committed to working together to institute a rational reasonable approach to shallow water drilling.

Allan noted that there have been at total of four pipe failures in the history of the program of which three were pin failures (Legs 127, 149, and 157) and one tube body failure.

**DISCUSSION:** In response to several queries, Allan explained that when the drill string is short it behaves differently and while the operator is concerned about drifting off site, the concerns about dynamic overload are more important. Short period waves are the problem and also wind direction. A 3 foot swell might be okay but a 5 ft swell probably would not. There were 4 to 5 meters of heave when the recoil failure occurred. He admitted that the full consequences of dynamic failure were not understood by the engineers. He added that the oil industry does not drill in this way. Consequently, industry has many more options to deals with getting stuck. In addition, the oil industry operators are usually operating from a fixed platform not a floating one in shallow water. In some conditions in shallow water as little as 1/2 meter of uncompensated heave can cause drill string failure with a floating platform. He noted that the pipe does get stuck a lot during drilling and told the panel that TAMU is analysing how often and the sediment type associated with getting stuck.

Sandy Shor raised the issue of the SEDCO water depth drilling limit which he believes no one really knew about previously. He noted that SSP has developed shallow water drilling guidelines for 200 m and shallower and this is below the limits set forth in the in the contract between SEDCO and ODP/TAMU.

One point of concern to SSP is the combination of rock type and depth. If TAMU's analysis of the dynamic recoil accident indicates that there is a correlation between the two and that potential drillstring failure can be predicted on this basis, then SSP can flag the rock types that are a mater of concern for PCOM and proponents. Allan thought the dynamic overload

was a greater problem than was realised.

#### Leg 163 storm.

The Joides Resolution encountered a Force 12+ storm in the East Greenland Sea with 100+ knot winds and 60+ ft seas. Allan showed a video of the storm and summarised the damage sustained by the ship. ODP-TAMU is investigating a number of procedures that will also be the subject of discussion at the ODP/TAMU-SEDCO meeting on Monday Nov. 16. These include:

- More extensive risk assessment for potential legs before and after scheduling
  - weather windows in high latitudes
  - ship capabilities
  - ice support vessel
  - on board meteorologist
- Most ship repairs were completed in Halifax and the ship sailed on time for Leg 164.

**DISCUSSION:** Allan noted that there is a hole in system in terms of assessing risks, other than that posed by hydrocarbons. Leg 163 attempted to operate in harsh environmental conditions and the worst operational accident in history of program occurred. He indicated that the ship was forced to constantly moving off site because of ice hazard. Three crewmen were nearly lost in a storm before the "big one" as a result of a 3/8 inch chain snapping. One man had his arm torn out of its socket and was air-lifted from the ship.

Although ODP has mechanisms in place for some safety evaluation, there are areas of operation that are not well risk assessed within the ODP program.

Enachescu expressed alarm at the conditions under which Leg 163 was drilled. He noted that the Canadians never drill under such conditions of ice infestation with so little support. In addition he noted that they do not use a drill ship at such shallow depths. The *Gadus Atlanticus* was inadequate to the task and Allan feels a larger ice support vessel is essential for drilling in high latitude areas.

Another point with relevance for SSP is the matter of alternate sites.

**SSP Recommendation # 1 to PCOM concerning submission of alternate sites in ice-infested waters:** SSP recommends to PCOM to direct the JOIDES office that it should let proponents of proposals of ice-infested waters know the requirement that alternate sites are required that might realistically be occupied in the event of ice forcing primary sites to be abandoned with the proposal.

#### *Explanatory note:*

Prior to Leg 163 alternate sites were submitted at a very late stage. The recommended procedure would ensure that alternate sites are in the system at an earlier stage so that they get processed in the same way as the regular sites.

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

## **4. SITE SURVEY STATUS OF UPCOMING SCHEDULED LEGS**

### **4.1 Leg 165: Caribbean Ocean History (Flood/Quoidbach)**

**SSP Watchdog:** Flood

**SSP Proponents:** Peterson

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

Andre Droxler provided new displays of three SCS profiles at S-2b and S-3b. The use of a shorter AGC window at S-3b did enhance reflections near a strong reflection. This shorter AGC window should also be used at S-2b where the existing replays with time and spatially varying gain have not enhanced the deeper sediment and acoustic basement reflections. The primary increase in resolution for these replayed lines comes from an increased vertical scale. It remains highly desirable that processing continue to enhance the high-resolution SCS lines at drill sites (including reduced vertical exaggeration and wiggle plots as well as the short AGC window) to provide the maximum information for Leg 165. These replayed profiles, and hydrosweep maps, need to be deposited at the ODP Data Bank as soon as possible since data packages will be assembled soon.

*Site Survey Readiness Classification :* 1B

**SSP consensus # 1:** The data set for scheduled leg 165 (Caribbean ocean history) is nearly complete, and could serve as it is if necessary. It is highly desirable, however, that Andre Droxler's R/V EWING SCS data continue to be processed to provide the maximum information for the drilled sections, and that this data and hydrosweep maps be deposited in the ODP Data Bank as soon as possible.

***Leg 167: California Margin***

***SSP Watchdog:*** Flood

***SSP Proponents:*** Lyle

***Target Type(s):*** A (paleoenvironment)

The Leg 167 safety package was reviewed at the September meeting of PPSP. This safety review resulted in the shifting of three sites (within survey grids; now termed CA-1D, CA-5A and CAM-3A) and the restriction in maximum depth at CA-9D (to 300 m) and CA-15A (to 400 m). ODP/TAMU subsequently restricted depth at CA-9D to 200 m. These changes were made to avoid structural highs, pinchouts, and strong reflections. A return to Site 893, Santa Barbara Basin, was added to the leg plan following the July SSP meeting (and seismic data was submitted to the Data Bank). This request was denied by PPSP, but it may be reconsidered at the November PPSP Meeting. We request that data sheets showing the positions of the moved sites be deposited at the Data Bank. A leg plan now needs to be finalized. All required items for this leg are in the data library now.

***Site Survey Readiness Classification :*** 1A

**SSP Consensus # 2:** All required data for Leg 167 (California margin) is in the data bank.

***Leg 168: East Juan de Fuca Hydrothermal (440)***

***SSP watchdog:*** Permanent: Casey; Acting: Sibuet/Quoidbach

***SSP Proponent:*** none

***Target types:*** E and D Open ocean environment with additional requirements for high temperature environments.

The Data Bank received in October 1995 the "Hydrocell 95" cruise report and a report for the PPSP evaluation. During this cruise, 360 km of seismic data (1 GI operated in GI mode, 4 channel streamer) and 380 heat flow measurements with a mean spacing of about 200 meters along some seismic profiles were collected. All seismic profiles are ESE-WNW oriented and have been acquired with a spacing of 1 or 1/2 mile in the area of the previous proposed sites. All of the initially proposed sites have been slightly moved to positions within this new, high quality data set. Migrated seismic sections shown in the report for PPSP are of very good quality. There are no systematic crossing lines for any of the new proposed sites, but as the spacing of seismic lines in the areas where sites are presently located is 1/2 a mile, there is no need for systematic cross lines at the sites.

The new processed seismic profiles have not been supplied to the DB except for those within the PPSP report. As the new proposed sites are based on these profiles, the complete set of seismic data acquired during the "Hydrocell 95" cruise must be provided to the DB as well as locations and values of heat flow measurements.

No visual data have been sent to the DB for the scenario in which a hard rock guide base is to be used at site PP6. If an Alvin cruise has been conducted in the area during summer 1995 and if dives have been made in the vicinity of the PP6 site, the proponents are encouraged to submit visual data to the DB in order to help TAMU plan implementation of a hard-rock guide-base.

***Site Survey Readiness Classification :*** 1B

**SSP Consensus # 3:** Since the Nov. 1994 SSP meeting, the DB has now received the "Hydrocell 95" cruise report and a report for the PPSP evaluation for Leg 168 (East Juan de Fuca hydrothermal circulation). During this cruise, 360 km of digitally recorded seismic data and 380 heat flow measurements with a mean spacing of about 200 meters along some seismic profiles were collected. The new processed seismic profiles have not been supplied to the DB except for those within the PPSP report. As the new proposed sites are based on these profiles, the complete set of seismic data acquired during the "Hydrocell 95" cruise must be provided to the DB as well as locations and values of heat flow measurements.

No visual data have been sent to the DB for the scenario in which a hard rock guide base is to be used at site PP6. If an Alvin cruise has been conducted in the area during summer 1995 and if dives have

been made in the vicinity of the PP6 site, the proponents are encouraged to submit visual data to the DB in order to help TAMU plan implementation of a hard rock guide-base.

#### **4.4 Leg 169: Sedimented Ridges II (Casey/Quoidbach)**

SSP Watchdog: Casey

SSP Proponent: none

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

The proponents have responded to the concerns of the SSP and are thanked for the new additions and information concerning additional planned submissions of seismic and ALVIN dive maps to the data bank. Prior to the November SSP meeting, several new suggested sets of data have been added to the data bank by the proponents that address many of the concerns of SSP.

These include the additions of:

1. an updated table of the seismic line coverage for all Leg 169 sites.
2. a Gloria mosaic covering the Escanaba Trough
3. VHS ALVIN Video Tape of Sites ET1-5 in the Escanaba Trough with time intervals noted.
4. Dive track maps for the Nesca region of the Escanaba Trough with interpreted geology and indications of the quality of navigation. These cover the region of sites ET1-5. These are included in a USGS open file report 94-711. Dive tape transcripts are also included in the report which is helpful.

Improvement of these dive maps which could prove helpful in site location are advised. The drill sites are not plotted on these maps and latitude and longitude marks are not included on some maps. In some cases one latitude and one longitude mark is included on each plot boundary and a 200 m scale bar is present. In others, only x-y values (meters?) without latitude and longitude are included.

SSP was very impressed by the working copy of the dive summary and geologic map for the Dead Dog Site vent field. We understand that this map will be returned to the proponents and will be resubmitted later. If these types of maps can be submitted for the vent fields, SSP will be far less concerned about the ability to locate all the drilling targets with the exception of BH-6. SSP encourages the proponents to submit these maps as soon as possible and encourages the proponent's intention to use these maps in site location.

SSP previously noted a problem in accurately locating BH-6. This hole will attempt of penetrate a steeply dipping fault zone. SSP asked the proponents to respond to the concern that the fault will not be easily located. Based on data supplied by the proponents, the seismic lines were navigated with GPS with shots every 50m and traces plotted every 12.5 meters. The proponents admit that these data may not be accurate enough to locate the steeply dipping fault zone, but suggest that the other objective of the hole is to establish a reference section can be easily achieved. SSP agrees that the reference section objectives can be met without a problem. If the hole intersects the fault in addition this would certainly be a welcome bonus. The proponents note that the Sonne will be conducting seismic work in the NE Pacific next summer before the Leg. They are attempting to see if it is possible to add data this way. SSP does not know if additional data can solve the problem of locating the fault at BH-6, but would suggest using the seismic system on the drill ship in attempting to resolve the fault during the drilling leg. A beacon could be laid on the site if the fault can be imaged. This will require shipboard seismic data processing. The drill ship will be equipped with differential GPS. This still may not place the hole accurately enough to drill the fault given the water depth, the accuracy in laying the beacon, and the steepness of the fault. SSP hopes the objective can be met because this was a high priority of the Tectonics Panel, but again we acknowledge that this may not be possible. SSP certainly encourages the attempt.

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

New hydrosweep data is comparable to the previous seabeam data collected in the Escanaba Trough, however the differential GPS navigated hydrosweep data shows that the Seabeam data is shifted about 500 m north. The proponents are requested to provide a table to the DB showing the new latitude and longitude of each of the proposed holes. 3.5 kHz data collected with the hydrosweep data is in the data bank.

A Dead Dog vent field map was also added to the data bank. 400 heat flow stations, 20 pop up pressure measurements and 25-30 new piston cores were collected in this region this summer. The new data suggest that the sites previously proposed should be shifted to meet the outlined objectives. The drilling strategy will be the same. Changing the sites will require new Site Summary Forms and Site designations.

We appreciate the drilling and survey strategies suggested by Jay Miller from TAMU in consultation with the co-chief Zierenberg at some of the small target sites where SSP had suggested placing of markers. This is to be discussed in detail at the pre-cruise meeting with TAMU. SSP is glad to see this early discussion taking place between the co-chiefs and

TAMU to avoid foreseeable problems which may arise during the cruise because of the lack of markers at the small target sites.

It also appears unlikely that the proponents will be able to install instruments and make measurements necessary to evaluate the effects of drilling on the hydrothermal systems. This is unfortunate because these studies were strongly supported by SGPP.

*Site Survey Readiness Classification : 1B*

**SSP Consensus # 4:** Almost all the required data is provided for Leg 169 (Sedimented Ridges II) and most of the suggested data is provided. The proponents have made substantial efforts in responding to SSP's requests and they are thanked for their efforts. In particular, the dive data and tapes are welcome additions. Latitude and longitude marks and site locations should be added to all pertinent dive maps submitted to the DB in the future. The proponents have promised to supply certain additional data such as vent field maps for site location and the newer Ewing-05 seismic data. The final dive maps of the vent fields and data to be submitted will satisfy the previous concern of SSP regarding site location (except Site BH-6). Site BH-6 is, in part, an important tectonic objective, but SSP believes this subsurface target will be difficult to locate. The drill ship seismic and differential GPS capabilities could be used to improve the chances of locating the fault zone during the Leg. Any changes in the Dead Dog Sites because of the new heat flow data will require submission of new site summary forms. The shift between the hydrosweep and older seabeam bathymetry will require a table to be added to the data bank with the corrected latitude and longitude of each site.

## **5. POTENTIAL FUTURE DRILLING: SGPP**

### **5.1 473: Saanich Inlet (473)**

*SSP Watchdog:* permanent: Casey; acting: Lyle.

*SSP Proponents:* none

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

Two APC holes will penetrate a Holocene sediment section approximately 100 m thick (SI-01B and SI-02B) in Saanich Inlet. The proposal was first reviewed at the July 1995 SSP panel meeting. At that meeting the SCS and environmental data (currents, tides, etc.) were determined to be acceptable, but 3.5 kHz data and data about hazards had not been turned into the data bank.

Brian Bornhold, the proponent, has responded with new information about hazards in the area. The cable near SI-01B is 1.1 km to the south, while the firing and practice area apparently was used only for small arms fire briefly during WW II. Investigations are being continued in Ottawa to determine if there is any need for concern. He also reported that local environmental agencies have been contacted to start the process needed to obtain permits to drill.

He also asserted that they have never been able to obtain good 3.5 kHz records from Saanich Inlet because of the gradational nature of the sediment-water interface and because of shallow gas in the sediment column. SSP feels that if 3.5 kHz data cannot be obtained more attention should be paid to re-processing the SCS data to expand the section proposed to be drilled and to enhance the resolution. SSP notes that the digital recording parameters should allow for significant improvements in resolution provided that the source had sufficiently high frequency content.

*Site Survey Readiness Classification: 1A*

**SSP Consensus # 5:** SSP acknowledges the efforts made by the main proponent about supplying information on the location of hazards in the drilling region of Saanich Inlet (473) and would appreciate keeping TAMU and the panel fully informed on it should additional information become available. SSP realises proponents' inability in supplying 3.5 kHz data. However, SSP feels that as 3.5 kHz data cannot be obtained more attention should be paid to re-processing the SCS data to expand the section proposed to be drilled and to enhance the resolution. SSP notes that the digital recording parameters should allow for significant improvements in resolution provided that the source had sufficiently high frequency content. The proposal is ranked as 1A for its site survey readiness.

### **5.2 New Jersey Shelf (348)**



*SSP Watchdog:* Flood  
*SSP Proponent:* PCOM liaison Mountain  
*Target Type(s):* All sites A (paleoenvironment)

Copies of seismic data collected during summer, 1995, were submitted to the data bank. The profiles from water depths less than 200 m have been processed to the specifications of PPSP. These profiles clearly show the drilling targets, and PPSP review is planned at their November meeting. Sufficient data is also submitted to define a new site MAT-13B at 435 m water depth. Side-scan sonar data, also required for PPSP safety review, is to be collected during a cruise scheduled for spring, 1996.

*Site Survey Readiness Classification:* 2B

**SSP Consensus # 6:** Newly submitted seismic data will substantially fulfill the needs of a shallow water hazards survey for drilling on the New Jersey Shelf proposal (348). Additional needed side-scan sonar data will be collected in spring 1996. The proposal is ranked 2B for its site survey readiness.

### **5.3 Hudson Apron (476)**

*SSP Watchdog:* Flood  
*SSP Proponent:* none  
*Target type(s):* All sites A (paleoenvironment)

This is the first time we have seen this proposal, and new seismic data, collected in summer, 1995, were deposited in the Data Bank for the November 1 deadline. The proposal calls for a series of APC/XCB and LWD sites into a slumped region, but the seismic lines presented in the proposal were not sufficient to show the features to be cored. The newly submitted high-resolution seismic data clearly show slumps in this region, both near-surface and subsurface. Eleven new unprioritized sites were located on the new lines; however, the specific drilling targets (e.g., slump scars and failure planes) are not clearly identified on these records making it difficult to evaluate how well the selected sites follow the schematic cartoon (fig. 7 of 476). For example, only one hole is sited upslope from the near-surface failure, not four, with the remaining ten sites apparently in the near-surface failure. In order to evaluate site selection, we need to have the sites shown on interpreted seismic lines with drilling objectives clearly shown. We also need to have the distribution and 3-D structure of the slump deposits of different ages shown in detail. This means multibeam bathymetry and grids of 3.5 kHz subbottom and, perhaps side-scan sonar, data for the near-surface failure and an interpreted seismic grid for any buried failures. Multibeam bathymetry does not appear to exist in this region, but a detailed bathymetric map is provided from single-beam data. The sonar data shown is of low resolution, or does not cover the entire region of interest. There appears to be a grid of seismic data in the area that may be sufficient to show the distribution of deeper failures.

We were also concerned that the planned use of LWD would not allow enough sediment to be recovered to meet the objectives of characterizing the failure plane and clinoform facies, and the dating of the failures. This concern is because of the complexity of the slump deposit and the distance (ca. 8 km) between cored sites. This means that LWD results will need to be extrapolated up to ca. 4 km to cored sites, and important horizons may be inadequately sampled, or poorly correlated. The large distance (up to about 3-4 km) between cored and LWD holes, and the depths of some of the LWD holes (up to 645 mbsf), raise potential safety issues because no samples are recovered for hydrocarbon analysis during LWD. We need some guidance from PPSP on how to evaluate this and other LWD proposals, and on what guidance we should provide to proponents.

*Site Survey Readiness Classification:* 2A

**SSP Consensus # 7:** New data and sites were submitted to the Data Bank for the Hudson Apron proposal (476) recently. Based on these data, we note that 1) the drilling plan needs to be better tied to the study as proposed, for example through the interpretation of seismic profiles, (2) additional information on the morphology of the near-surface and buried failures needs to be provided, and (3) the acceptable spacing between cored sites and LWD sites for both scientific and safety reasons needs to be addressed. Much of the required data, with the exception of a multibeam survey, may exist in this region because of prior hazards surveys. Because of this, a rating of 2A is suggested; however, this rating may change after proponents evaluate existing data in the region. The proponents suggest that new multibeam and sonar data might be collected, but no firm plan is

provided.

## 6. POTENTIAL FUTURE DRILLING: OHP

### 6.1 *Benguela Current (354add3, 354add4)*

SSP Watchdog: Permanent: Paull; Acting: Lyle

SSP Proponent: none

Target Type(s): A (Paleoenvironment)

The scientific objectives of this proposal, which was ranked very high by the OHP, is to reconstruct the Pliocene-Pleistocene histories of the Benguela Current and the coastal upwelling off Angola and Namibia between 5°S and 31°S. In the latest revised addendum (354-add4) the proponents have selected 10 primary sites located along three transects:

- Sites NAB1, NAB3A and NAB4 are located along an E-W transect off the Congo Rise in intermediate water depths (1397-3001m). Maximum penetration is 400 m to 600 m.
- Sites MAB1, MAB3 and MAB5A lie along an E-W transect at approximately 12°S in water depths ranging from 500 m to 1559 m. Maximum penetration is 400 m to 600 m.
- Sites SAB2, WR1, NCB2 and SCB1 are located along a N-S transect traversing from the middle slope of Angola at about 16.5°S across the eastern Walvis Ridge to the upper slope at about 31.3°S. Maximum penetration of the proposed sites in water depths of 750 to 2770m are 600m.

The bulk of the data is at the data bank. No new data has arrived since the last SSP meeting (April 1995). A close examination of the data package has revealed some defects that were not apparent earlier, listed below:

Sites MAB-1 and MAB-3: The major E-W line is missing from the data bank. Line AWI-93041 appears to be truncated at CDP7000 and the higher CDP's, which cover these two sites, have not been sent.

All MAB sites--there is some indication of gas pock marks at the sea floor. The proponents are encouraged to contact researchers w/ sidescan data in the vicinity (e.g. Pierre Cochonot at IFREMER, Brest; pierre.cochonot@ifremer.fr). Data on gas will be important for safety review.

WR-1: No data has yet been deposited at the data bank. Much data exists in the vicinity, including that of Sibuet et al. 1984; see 854 add2; fig 37). Pertinent copies of the existing data need to be deposited at the ODP data bank.

NCB-2: all site survey data needed; no data at ODP data bank

SCB-2: all site survey data needed; no data at ODP data bank

SSP recommends the proponents to acquire high resolution Parasound and SCS data along crossing lines at the proposed sites SCB1 and NCB2 (and perhaps at WR-1) during the forthcoming METEOR cruise, scheduled for January 1996. Further, SSP recommends to investigate the occurrence of man-made seafloor hazards including the position of submarine cables.

*Site Survey Readiness Classification: 2B*

**SSP Consensus # 8: Much of the required and recommended data in support of the Benguela Current proposal (354add4) are in the data bank, and SSP appreciates the efforts made by the proponents in responding to its concerns. Additional Parasound and seismic data is scheduled to be collected on the forthcoming cruise on *Meteor*. SSP urges the proponents to address the data shortcomings from sites MAB-1 and MAB-3; WR-1; NCB-2 and SCB-2 as listed above as soon as possible. The proposal is ranked 2B for its site survey readiness.**

### 6.2 *Southern Atlantic paleoceanographic transect (464)*

SSP Watchdog: Peterson

SSP Proponents: Diebold involved in upcoming survey cruise

Target Type(s): all sites A (Paleoenvironment), except alternate site TSO-4B (type E)

The only new data received by the Data Bank since the July meeting consist of shot point navigation plots for the four Alfred-Wegener Institute MCS lines previously submitted in support of proposed sites TSO-4, -6, -7, and -8. Site TSO-8 does not actually fall on line AWI 94070, and it is not clear why this profile was submitted except to characterize the general terrain in the area. Parasound and Hydrosweep data exist for most of the TSO sites, but have yet to be received by the Data Bank. An e-mail communication from Rainer Gersonde on 3 November (just prior to our meeting) indicates that hard copies of these records were sent by express mail, but they had not arrived at the time SSP discussed this program. Piston cores exist at most proposed locations, and lithologic logs are in the Data Bank. SubSAT-3A is a proposed redrilling of ODP Site 704 and can be considered data-ready based on previous approval for Leg 114.

An NSF-funded site survey cruise on the R/V Thomas Thompson is scheduled to begin in late January and we expect this field program to collect all data required to satisfy target type A guidelines. Alternate site TSO-4B, which proposes to drill and date a basement high in the Agulhas Basin near TSO-4A, is actually target type E (Open Ocean Crust, <400 m sediment) but has similar data requirements. An additional site survey proposal has apparently been approved for the R/V Sonne, but is not yet scheduled. In light of recent high-latitude drilling experiences, proponents are urged to accumulate and submit data which help to clearly define weather windows for safe drilling.

Site survey readiness is still considered as "2B". Pending successful completion of the scheduled survey(s), however, we expect this program to be a strong candidate for inclusion in the 1997 drilling schedule. We wish the proponents good luck in the design and execution of their upcoming cruises and we look forward to reviewing a complete data package in the near future.

#### *Site Survey Readiness Classification: 2B*

**SSP Consensus # 9:** A site survey cruise scheduled for early 1996 is expected to collect all required data in support of the proposed Southern Ocean-South Atlantic transect (464). A second survey cruise has apparently been approved, but is not yet scheduled. Data Bank holdings for this program are at the moment limited, and the only site currently ready for drilling is SubSAT-3A (a redrill of ODP Site 704). Pending successful surveys, we expect this program to compete favourably for inclusion in the 1997 drilling schedule and is rated as 2B for its data readiness.

#### **6.3 NW Atlantic Drifts: Neogene Paleocenaography (404-Rev2)**

*SSP watchdog:* Lykke-Andersen

*SSP Proponents:* Flood

*Target Type:* all sites type A: paleoceanography

Since last SSP-meeting new, required seismic data and track maps have been submitted to the Data Bank. Required 3.5 kHz-data is now available for all the sites. High-resolution seismic profiles have been provided at or near the sites (i.e. within a few nautical miles of the sites), thus it is now possible, by means of the data available in the Data Bank, to image the sediments to depths exceeding the proposed TD's at or close to the sites.

In a letter to the Data Bank the proponents express their wish not to relocate the sites. They consider the selection of the sites as optimal relative to the scientific objectives described in the proposal. The choice of locations was based on a strategy for obtaining information at depth levels increasing in 100 m intervals, and on evaluations of KNORR-3.5 kHz seismic data in the vicinity of the sites. Furthermore, it was pointed out that the quality of the navigational data for the older seismic profiles are inferior to the quality of the navigation of the 3.5 kHz-data.

One of the major concerns of SSP is the lack of possibilities for direct linking of stratigraphic information between the sites and into a regional framework. To meet this need for correlation the proponents suggest that seismic profiles should be acquired by the water gun system aboard Joides Resolution on its approach to the sites or groups of sites. This strategy was accepted by SSP.

#### *Site Survey Readiness Classification: 1A*

**SSP Consensus # 10:** A set of seismic profiles with penetration exceeding the intended drilling depths at or near the sites are now in the Data Bank for NW Atlantic Sediment Drift proposal (404). The seismic profiles are not considered optimal for precise evaluations of the sites and for regional correlations, but it is accepted that these objectives are met by seismic profiles to be acquired by means of the water-gun system aboard Joides Resolution on its approach to the sites. Because of it the data readiness for this proposal is classified as 1A.

#### **6.4 Blake Plateau and Blake Nose (462)**

*SSP Watchdog:* Lykke-Andersen

*SSP Proponents:* None

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

During the November 95 SSP meeting the data package was reviewed regarding the location of Sites relative to the MCS-line TD-5. Some discrepancies were observed between the locations given by coordinates in the ODP Site Summary Forms and locations described in the text in the revised proposal dated July 1, 1995. The discrepancies were considered incidental and easy to remedy, and thus thought to be without importance for the evaluation of the data set which is still considered as being complete.

*Site Survey Readiness Classification:* 1A

**SSP Consensus # 11: The data set for Blake Nose proposal (462) can now be regarded complete.**

### **7. POTENTIAL FUTURE DRILLING: LITHP**

#### **7.1 Return to 735B: All Fracture Zone (300 add-2)**

*SSP Watchdog:* Permanent: Casey

*SSP Proponents:* None

*Target Type(s):* Bare Rock Drilling

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

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

Recent site survey proposals have not yet been funded, but these are regarded as critical prior to the second Leg for HRGB offset drilling sites as the bottom video or photographic data need to be supplied prior to this Leg. New 3.5kHz data has not yet been submitted for the Offset Sites.

The proponents and Mark Muller are thanked for the addition of seismic refraction results to the DB from the recent British Survey to this region. These results should prove important in establishing the feasible objectives of the Leg.

*Site survey readiness classification.* By considering separate drilling legs it is possible to rank the proposal to deepen 735B as 1A and the offset drilling portion of the proposal as 2C.

**SSP Consensus # 12: SSP appreciates the efforts to supply required data to the DB and the new seismic refraction results for proposal 300 (return to 735B). SSP reiterates that all the required data is now available in order to deepen Site 735B.**

However, SSP had requested that the proponents edit the JOIDES Resolution video tapes to show the distribution of sediments and slopes near Site 735B. This is important given the potential of a selection of an alternate site location if deepening of 735B does not proceed as planned. Also the 3.5 kHz and SCS data has not yet been supplied and this should be added by the next SSP meeting in March. Offset Sites 735C, D, E, and F to be drilled during the second Leg are not regarded to have the required data. These sites require video or photographic imagery for HRGB offset drilling sites. The proponents are advised that they should make every effort to obtain this data if the offset sites are to be scheduled. SSP is interested in seeing the new 3.5 kHz and SCS seismic results from Dr. Tim Minshull for these sites. The fully processed seismic data should be deposited in the DB as soon as possible. The proponents are encouraged to submit the data and results. Track lines and sections should be submitted with sites clearly marked. These should be submitted prior to the March 1996 SSP Meeting. These data and results of any new site survey data will be important for continued evaluation of the second Leg of the proposal by SSP and the thematic panels. The proponents are asked to keep SSP apprised of the pending site survey proposal's funding status.

## **7.2 Red Sea Deeps (481)**

**SSP Watchdog:** Scrutton

**SSP Proponents:** None

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

This is a new proposal introduced at the Autumn round of thematic panel meets in the area of operation and rated highly. It effectively replaces the earlier Red Sea proposals using more recent US/France/German work to propose three new scientific targets and twelve sites.

The first target is the transition from continental rifting to sea-floor spreading at about 20° N, using few basement sites, RS1A-RS4A, along a 100 km NW-SE transect that coincide with a SONNE 53 refraction line.

The second target is the metalliferous sediment and mineralization stock work beneath the Atlantis II deep brine pool at about 21°N with five APC-XCB sites and one re-entry site to sample 500 m of basement.

Two alternate sites are proposed in the Shaman and Mabahiss Deeps in case of failure at the AII Deep.

The third target is a complete post-Miocene sediment section to investigate a variety of paleoenvironment and paleo-climatological phenomena related to sapropel prediction, sea level change and monsoonal conditions. Tectonic transect will also provide paleoceanographic material. Two sites are planned, one at 15°N and other at the Kebrit Deep at 25°N.

The data required are for target types B, E and A respectively. Although some preliminary site survey data has been submitted to the Data Bank, there is still a need for a properly organized and documented set of required data; navigation, seismic; annotated with sites, cores etc. (as per site survey data matrix) - for each of the primary and two alternate sites, not forgetting that some sites serve more than one purpose. Much of the data may exist because of extensive geophysical and geological surveying activity in the Red Sea but this is not clear from the present proposal and data package.

**Site survey readiness classification:** 2A

**SSP Consensus # 13 :** SSP congratulates the proponents on preparing an exciting proposal for the Red Sea Deeps (481). It is necessary for the proponents to prepare for the Data Bank fully annotated maps and sections, velocity data, core logs, heat flow measurements and any other required data for the appropriate target type of each site. SSP believes that all these data already exist. Site Survey readiness is judged as 2A.

## **7.3 Caribbean Cretaceous Basalt Province (411, 415-rev, 434, 480)**

**SSP Watchdog:** Permanent: Hinz; Acting: Casey

**SSP Proponent:** Diebold

**Target Type(s):** D (Ocean Crust with >400m sediments)

Proposal 480 attempts to address igneous and tectonic objectives of the previous Caribbean proposal. The proponents are thanked for their prompt response to concerns expressed by SSP during the July meeting. SSP, however, feels that the Nautile dives will represent a significant data set in establishing the bottom conditions for Sites BR1 and BR2. Migrated sections will also be useful, but perhaps not definitive. Panel members are also still concerned about accurate velocities with assigned error estimates for Sites VB1 and VB2. Of particular concern is the likely effect of velocity anisotropy in layered sediments when establishing depth estimates for drilling. Data from the upcoming Nautile program should be submitted to the data bank as soon as possible.

**Site Readiness Evaluation:** Based on the Nautile Site Survey scheduled for 1996, the proposal is classified as 2B.

**SSP Consensus # 14:** SSP thanks the proponents of Caribbean Basalt proposal (480) for responding to the concerns regarding velocity estimates for Hole VB1 and VB2, sediment thicknesses at Sites BR1 and BR2 and seabed characteristics. SSP however request error estimates on velocities to be provided, given the likely seismic anisotropy in layered sediments. These estimates are important because VB1 and VB2 lie near the depth limit for drilling with the JOIDES Resolution (~7000m). SSP is still not convinced of the sediment cover and thicknesses over Holes BR1 and BR2. These sites could ultimately be classified as bare rock with sufficient data. It is noted that the seismic data provided is not satisfactory for evaluating the sediment cover. We will await the migrated seismic sections over these sites that are promised and the results of the Nautile program which should firmly establish the nature of sediment cover for the two sites. The Nautile site survey is regarded as essential for sites BR1 and BR2 and the proponents are encouraged to submit results from the

Nautile Program as soon as possible. If sediment cover turns out to be minimal at BR1 and BR2, coordination between the Nautile Program and TAMU would be advisable in case markers are needed to locate sites. We also note that sites are not marked on the hydrosweep bathymetric maps provided. These data and any new site survey data should be submitted by the April, 1996 SSP meeting. The proposal is rated as 2B for its site survey readiness.

#### **7.4 Kerguelen Plateau and Broken Ridge: age and evolution (457-rev2)**

*SSP Watchdog:* Tokuyama

*SSP Proponent:* None

*Target types:* See Tables 1 and 2

At the July 95, SSP had mentioned that in spite of a great amount of data submitted for previous ODP legs 119 and 120 to the ODP Data Bank, the revised proposal (457-Rev2) lacked additional geophysical data for the region. The proponents have now submitted additional data for a number of the proposed sites.

However, geophysical data are only composed of seismic profiles of MCS and SCS without other geophysical data such as 3.5 kHz and so on. SSP noted, therefore, the followings based on the site survey guideline. 1) no 3.5 profiles are provided to the proposed sites which are judged as target type A; 2) no swath bathymetry and photograph/video data are provided to the proposed sites of the target type H; 3) the intersection seismic lines are not provided for all proposed sites; 4) the seismic velocity data are required for the sites whose total penetration exceeds 700 m to confirm the length of penetration; 5) some proposed sites plotted on the map of the seismic lines show an inconsistency with the location data described in the site summary form.

SSP recommended at the last meeting that the excessive amount of total drilling time and lack of adequate data at some of the sites are very likely to require elimination of several sites from the present very ambitious 18 site drilling plan. Recently proponents have prioritized their drilling sites for two legs from geographical points of view. Those are Leg A of the Northern and Central Kerguelen Plateau with one site on the Broken Ridge and the Leg B of the Southern Kerguelen Plateau with one site on the Broken Ridge.

Such a division of the proposal has raised some important and fundamental questions concerning rankings as carried out by thematic panels during their spring 95 and Fall 95 meetings. The proponents maintain that such a division of this proposal into two legs does not change the objectives of the proposal as stated in their original proposal and the division is primarily geographic. They further state that the drilling at sites chosen for two legs do not inter-depend upon the results from either of these legs. This is largely true. However, the sites proposed for each legs, (see tables 1 and 2) where some of the prime sites proposed earlier have now been dropped (e.g. 4A) makes drilling both legs mandatory if we are to meet all the objectives as listed in the proposal and the letter dated 23 October 1995. It is not clear, had the proponents submitted their scenario of two legs to the thematic panel prior to their Fall meeting that its ranking by the thematic panels would have remained the same. It is for this reason SSP is recommending that the proponent should examine this question carefully and submit an appropriate addendum to the JOIDES Office for consideration by the thematic panels during their Spring 96 meeting.

**Table 1 for Kerguelen Plateau**

**Leg A: Northern and Central Kerguelen Plateau/Broken Ridge**

**Objectives:** To determine the age of the Kerguelen/Broken Ridge in order to understand the growth of the LIP

**High Priority Sites**

site name	area	water depth m	sed. penetration m	basement penetration m	days drilling	target types
KIP 2B	N. Kerg.	200	750	200	7.9	G
KIP 3A	N. Kerg.	600	250	200	6.4	G
KIP 4B	N. Kerg.	225	200	200	4.6	G
KIP 5A	W. Broken Rdg	1060	210	200	6.6	G

Total 22.5

**Intermediate Priority Sites**

site name	area	water depth m	sed. penetration m	basement penetration m	days drilling	target types
KIP 1B	N. Kerg.	2000	300	200	8	G
KIP 6B	C. Kerg.	950	200	200	5.3	G
KIP 7A	C. Kerg.	1200	650	200	8.8	G
KIP8B	C. Kerg.	1400	150	200	5.5	G

Total 27.6

**Table 2 for Kerguelen Plateau**

**Leg B: Southern Kerguelen Plateau/Broken Ridge**

**Objectives:** 1) To examine the change of age and the chemical variation within the LIP.

2) To obtain the deeper section of the LIP.

3) To obtain a complete record of Cenozoic sediments.

**High Priority Sites**

site name	area	water depth m	sed. penetration m	basement penetration m	days drilling	target type
KIP 9A	Broken Rdg.	not given	not given	not given	5.4	G
KIP 12A	S. Kerg.	1800	550	200	9.2	G
KIP 15A	S. Kerg.	3500	300	0		A
KIP 16A	S. Kerg.	2900	300	0		A
KIP 17A	S. Kerg	2100	300	0	5(15A,16A,17A)	A
Special Case						
KIP 18A	S. Kerg.	1600-2700	0	500	?	H
KIP 18B	S. Kerg	2100-3600	0	500	?	H

**Intermediate Priority Sites**

site name	area	water depth m	sed. penetration m	basement penetration m	drilling time (days)	target type
KIP 10A	S.Kerguelen	4300	700	200	16.8	D
KIP 11A	S.Kerguelen	1900	300	200	8.5	G
KIP 13A	S.Kerguelen	1600	700	200	10.2	G
KIP 14A	C.Kerguelen	4600	700	200	17.4	D

Total:52.9

Division of this proposal into two legs has raised some problems for SSP as well on their ranking of this proposal about its readiness for drilling in 97 and/or 98. SSP does not feel comfortable in rating this proposal for its readiness because of the uncertainties which underlie drilling at some of the sites. As a result the proponents may wish to change their drilling strategies from what is listed in the letter. However, SSP has provisionally rated this proposal according to the legs proposed.

Leg A.- All of the sites for this leg fall under drilling target type G which requires 3.5 kHz data and or high resolution single channel data to image the overlying sediments at some of the sites. This data is lacking. Another concern SSP has is the location of site 2B and to some extent site 4B which lie in water depths of around 200 m. As a result shallow water hazard guidelines will apply to these sites, unless the proponents decide to move these sites to deeper waters.

In ranking this proposal during their July 95 meeting SSP had the impression from Rev1 that most of the desired and recommended data existed but was not deposited with the Data Bank and, therefore, rated it under category 2A. SSP appreciates the efforts made by the proponents in supplying a lot of data for the proposed sites, though, as mentioned earlier, some of the required data is lacking. It is understood that this data will be collected on a proposed French cruise in 1997. Another Australian cruise is also proposed to this region but no details have been supplied.

If we eliminate drilling at the two shallow water sites for safety reasons with the hope that alternate sites on existing data will be chosen to meet the objectives, and considering that some of the required and recommended data will be collected



on the proposed French cruise in 1997, we rate this leg of the proposal as 2C for site survey readiness.

Leg B.- This leg contain three problematic sites 9A and 18A and 18B. No positional information exist for site 9A though a letter from one of the proponents state that it is under consideration. Site 18A and 18B are classed as offset drilling target for which swath bathymetry and photograph and/or video data will be needed. None of these data exist but plans call for this data to be collected in 1997 on a French cruise. Careful examination of this data will have to be carried out not only by SSP but also by TAMU to judge the suitability of the proposed sites. For this reason this leg of the proposal is rated as 3B from site survey readiness point of view.

*Site Survey Readiness Classification: 2C and 3B*

**SSP Consensus # 15:** SSP is concerned about prioritization of the drill site into two legs for Kerguelen Plateau proposal (457) subsequent to the thematic panel meeting, which may effect their ranking of this proposal. SSP recommends that suitable addendum be submitted to the JOIDES Office so that it can be ranked again by thematic panels during their Spring meeting. A number of essential data items are still lacking. The proponents should make every effort of sending these items to the Data Bank as soon as possible if available. Details of the proposed work to be carried out in 1997 be supplied with the addendum for proper evaluation. SSP does not feel comfortable in rating this proposal for its readiness because of the uncertainties which underlie drilling at some of the sites. As a result the proponents may wish to change their drilling strategies from what is listed in the letter. However, SSP has provisionally rated this proposal according to the legs proposed. If we eliminate drilling at the two shallow water sites, proposed for Leg A, for safety reasons with the hope that alternate sites on existing data will be chosen to meet the objectives, and considering that some of the required and recommended data will be collected on the proposed French cruise in 1997, we rate this leg of the proposal as 2C for site survey readiness. Leg B propose to drill two deep offset holes for which appropriate data do not exist. Plans call for collecting this data in early 1997 and therefore this Leg is rated as 3B.

#### **7.5 CORK Hole 395A (424-REV)**

*SSP Watchdog:* Doug Toomey

*SSP Proponent:* None

*Target Type(s):* C (Active margin)

Hole 395A was first drilled in 1975-1976. Since then it has been revisited several times. From an SSP view, the data package is complete. We note, however, that the proponents may want to address the possible effects of Hole 395 on their hydrogeologic experiments. In particular, and from a simplistic view, is it necessary to CORK both holes to achieve the scientific objectives.

*Site Survey Readiness Classification: 1A*

**SSP Consensus # 16:** The data package for proposal Corking site 395A (424-REV) is complete and receives our most celebrated ranking: 1A.

### **8. POTENTIAL FUTURE DRILLING: TECP**

#### **8.1 NARM Nonvolcanic: Ocean-Continent Transition off west Iberia (461-Rev2)**

*SSP Watchdog:* Enachescu

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

*Target Type(s):* B (Passive margin)

A very comprehensive data base exists in the Data Base for this proposal. From the SSP point of view, the proposal is close to be ready for drilling. Only the most recent collected data has not been submitted in a final processed form to the Data Bank.

An addendum dated October 1995, containing some small modifications to the January 1995 proposal, was received prior to the meeting. During a cruise last summer additional data was collected either crossing or in the vicinity of the proposed sites. New data includes deep-tow magnetics, OBS and 1500 km of MCS. Intersecting profiles are now available for all drilling locations. The addendum contains the Discovery cruise tracks, brute stacks of seismic lines crossing the locations IB-7A, IB-8A

& B and IB-9A sites. A recontoured map of the top of the Basement was provided.

Other pertinent data recently deposited in the DB are two SCS lines, 146-2 and 149-3 and their tracks, acquired during the ODP leg 149 in the Iberia Abyssal Plain. Line 149-3 contains the locations of the proposed site IB-10.

The most significant modification appearing in the addendum is the possible moving of the site IB-8A to the new IB-8B locations. This move is justified by the interpretation of the new data, processed only in a provisory form. However, this possible shift of locations does not change the SSP overall ranking of the proposal. Certainly our final assessment will be performed after inspecting the adequately processed MCS.

*Site Survey Readiness Classification: 2A*

**SSP Consensus # 17: A nearly comprehensive data base for site assessment exists in the Data Bank for Iberia II proposal (461-add) for the older sites and for the newly proposed alternate location IB-8B. The addendum to 461-Rev contains only provisory top of the Basement map and page size brute stack MCS. Fully processed record of data collected during the recent cruise must be submitted in adequate form to the DB as soon as available. The site survey readiness for this proposal is considered as 2A.**

### **8.2 Physical Properties of Accretionary Prisms (475)**

*SSP Watchdog:* Sibuet

*SSP Proponent:* none

*Target Type(s):* C (active margins)

All proposed sites are a reoccupation of already drilled sites in North Barbados or sites planned to be drilled on the Costa Rica margin during Leg 170 except for proposed site NBR-8 which is offset about 1 km from site NBR-9 (949B). SSP is concerned by the fact that NBR-8 is supposed to be drilled 250 m deeper than site NBR-9 (949B). In that case, proponents must be aware that some previous drill hole with core recovery might be required, depending on guidance of safety rules which could be set up for logging while drilling holes.

The proposed sites belong to the drilling environment target C (active margin). As these most of these sites have been drilled or will be drilled, all required data for the sites exist at the data bank.

*Site Survey Readiness Classification: 1A*

**SSP Consensus # 18: All proposed sites are a reoccupation of already drilled sites in North Barbados or sites planned to be drilled on the Costa Rica margin during Leg 170 except for proposed site NBR-8 which is offset about 1 km from site NBR-9 (949B). The SSP is concerned by the fact that NBR-8 is supposed to be drilled 250 m deeper than site NBR-9 (949B). In that case, proponents must be aware that some previous drill hole with core recovery might be required, depending on the guidance of safety rules which could be set up for logging while drilling holes. The proposed sites belong to the drilling environment target C (active margin). The site survey readiness of this proposal is judged as 1A.**

### **8.3 West Woodlark Basin (447-rev)**

*SSP Watchdog:* Enachescu

*SSP Proponent:* none

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

This proposal is targeted to a small basin formed by present day active extension. The recent basin formation includes all the variations from continental rifting to seafloor spreading. A low angle detachment zone and a possible metamorphic core complex, the Morsbey Seamount, are to be investigated by drilling. The role of low-angle faulting in continental extension and breakup is one of the most controversial subjects in geoscience world. Five locations are documented, two of each have alternatives. Except for one (3A), these sites are judged as passive margin targets. Site 3A was considered barerock target prior to recent sampling of the mound.

SSP acknowledges that a nearly comprehensive data package has been deposited in the Data Bank including a substantial amount of MCS data. All proposed sites are feasible and strongly documented. The few remaining concerns raised by this and other panels, were addressed during the latest Ewing research cruise, when MCS, gravity, mag. 3.5 & 12 kHz echo sounder, GPS navigation data were collected.

Intersecting lines required for all proposed sites in passive margin settings (sites 1A, 2A, 4A, 5A and B), are now collected. Several single trace monitor lines inspected during the meeting are of excellent quality but do not allow an in depth site survey analysis or the final validation of the scientific objectives of the drilling program.

Initially identified as barerock, the Site 3A appeared at least on line 1218 as sedimented. This was reported in our past watchdog reports and the necessity of coring was repeatedly stressed. Coring, therefore considered a crucial requirement by SSP at site 3A, was attempted on and near the crest of the Moresbey Seamount. Two unsuccessful piston cores recovered very little sedimentary material and is estimated that unconsolidated carbonate sand forms the sediments pockets at both crestal sites. Dredging the uppermost southern slope of the seamount resulted in a Pliocene sedimentary sequence consisting of sandstone, mudstones, biomicrite and conglomerate. This was a surprising result, as metamorphic rocks were dredged previously from the northern slope, but agrees with interpretation of stratified rocks within the upper part of the seamount.

Video or photographic data with accurate navigation is needed to clarify the shape and the nature of this site and to better document the scientific rationale of this proposal. This type of data is planned to be obtained during a late fall Aus-Can cruise. Though water current information has been obtained for this region, it is advised that such information should be obtained for the 3A site if the use of HRGB becomes necessary.

*Site Survey Readiness Classification:* Presently the SSP ranks the proposal for site readiness as 2A.

**SSP Consensus # 19:** SSP reiterates that a nearly comprehensive data package supporting drilling in the West Woodlark Basin (447) now exists in the Data Bank. A few items like final migrated cross lines are soon to be supplied. These lines together with visual and further coring data for site 3A, will complete the data package. Reinterpretation of this site in light of the recent coring results may change its drilling strategy. One of the sites may need PPSP preview. Site survey readiness is classified as 2A.

#### **8.4 Romanche Fracture Zone (468-Rev)**

*SSP Watchdog:* Doug Toomey

*SSP Proponents:* None

*Target Type(s):* All sites: G (Topographically elevated feature)

Since our last meeting new data have been added to the Data Bank and a revised proposal has been submitted (468-REV). The revised proposal includes five sites from the crest of the Romanche Fracture Zone transverse ridge, plus one site from the crest of the Vema Fracture Zone transverse ridge. The primary scientific objective is to constrain the cause of vertical tectonics at fracture zone transverse ridges by examining the paleodepth/age history in the shallow water limestone cap on top of these two transverse ridges.

The Vema site (VE-3a) has been previously approved by SSP as the test site for the diamond coring system.

In the following summary we address: 1) the revised nomenclature of the sites, 2) the status of the data package, 3) the outstanding issue as to whether or not some of the sites may be considered as "F: Bare-Rock Drilling"; presently all sites are evaluated as "G: Topographically Elevated Features", and 4) suggestions for data to be collected during an upcoming cruise.

**Issue 1:** Following is a matrix outlining the history of site nomenclature and the relationship to topographic features as named by *Bonnati et al.* [1994]:

Relief Feature	April 95 Site Names	Sites in 468-Rev	Corrected Site Names
A	Rom1a	R1	Rom1b
A	-----	R2	Rom2b
C	Rom2a	R3	Rom3b
D	Rom3a	R4	Rom4b

D	-----	R5	Rom5b
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The original proposal (468), dated Jan. 5, 1995, indicated 3 sites (Rom1a, Rom2a, Rom3a). The revised proposal (468-REV), dated July 31, 1995, indicated 5 sites (R1, R2, R3, R4, R5). In keeping with JOIDES guidelines the names of the revised sites should be Rom1b, Rom2b, etc. To be clear, there is no difference in the locations of the 5 sites shown in columns 3 and 4 above; only the names have changed.

Issue 2: Sites Rom1b and Rom2b are located on Relief A (see Bannati et al., 1994). New MCS data have been submitted for this site and the track chart indicates that 3.5 kHz data may exist. To be approved by SSP, the following data must be submitted to the data bank for Relief A: a) high resolution SCS, and b) 3.5 or 12 kHz data. These data are vital since they provide higher resolution constraints on the lithology of the site in comparison with MCS data. Also, as mentioned below, both types of data bear on the question of whether or not this site should be evaluated as a bare-rock target.

Site Rom3b is located on Relief C. New MCS data have been submitted. The available track chart, however, indicates that high resolution SCS and 3.5 or 12 kHz data do not exist. If such data do exist they should be submitted to the data bank. If the data do not exist, perhaps they could be collected as part of an upcoming cruise.

Sites Rom4b and Rom5b are located on Relief D. New MCS data have been submitted. However, the following data are considered vital by SSP and as yet not in the data bank: seismic velocity determination, 3.5 kHz, and high resolution SCS. We also remind the proponents that this site may present problems for the safety panel. An excerpt from the minutes of the April 95 SSP meeting follows:

"SSP warns the proponents that deep penetration into a thick, highly-deformed sedimentary section, of unknown lithology, of unknown age, of unknown tectonic history, over crust of unknown type, is likely to cause problems with the safety panel. Steps that the proponents could take to help strengthen the safety case for site ROM-3a would include: (1) acquire crossing seismic lines to constrain the three-dimensional structure, (2) assemble heat flow data, which pertains to thermal maturation issues, (3) better document the ages and lithologies of dredged samples, especially any potential source rocks, (4) incorporate results from recent Eastern Equatorial Atlantic Transform drilling into their interpretation of the tectonic and geological history of Peak D, (5) examine magnetic data with an eye towards constraining oceanic vs continental nature of underlying crust, (6) move sites ... along strike away from pinchouts and structural highs."

In addition to vital data, there are several data sets that are recommended for inclusion in the data package. The following data types are recommended for sites Rom1b, Rom2b, and Rom3b: seismic velocity determination, side-looking sonar, photography or video, magnetics, gravity, sediment cores. For sites Rom4b and Rom5b, gravity, magnetics, and side-looking sonar are recommended data types. Recommended data types should be submitted to the Data Bank if they already exist, but they need not be acquired if they don't already exist.

Issue 3: SSP reminds the proponents of the comments from a previous panel meeting regarding whether or not sites Rom1b, Rom2b, and Rom3b should be considered as hard rock sites:

"The 'coring' box on the site summary forms has been left blank. In view of the fact that site VE-3 was scheduled for drilling with the diamond coring system and hard rock guidebase, SSP wonders whether the proponents plan to spud-in directly into the carbonates at sites ROM1a and ROM2a, or are the carbonates sufficiently lithified that the use of a bare-rock guidebase will be required. If use of a hardrock guidebase is proposed, then SSP will require visual data to ensure that the drape of unconsolidated sediment is sufficiently thin and the seafloor slope is sufficiently flat that guidebase emplacement will be feasible." (April 95 minutes)

Issue 4: A letter to SSP dated November 6, 1995 indicates that a cruise to the Romanche will occur in March-April 1996. Data to be collected include multibeam sonar, side-scan sonar, and MCS. Given that none of the Romanche sites are considered viable for drilling by SSP because of incomplete data packages, we recommend that the proponents carefully review the minutes from all meetings and attempt to revise the cruise plans accordingly.

*Site Survey Readiness Classification: 2B*

**SSP Consensus # 20:** The data package for Romanche Fracture Zone (468-REV) proposal is not yet complete. For sites ROM1b, ROM2b and ROM3b, on limestone caps, the proponents need to

clarify their spud-in strategy, and provide visual data if a hard rock guidebase is needed. Additionally, high resolution SCS and 3.5 kHz data need to be collected and submitted to the Data Bank. Sites ROM4b and ROM5b, proposed for 1000m penetration into a thick pile of deformed sediments of unknown origin, could present safety problems. The data package is rated as 2B.

## **9. OTHER BUSINESS**

### **9.1 Long Range Plan and ODP International Review Committee (Ellins)**

Ellins reported informally on the second meeting of the ODP International Committee Meeting held in Frankfurt, Germany.

The meeting commenced with a short presentation from Don Heinrichs of NSF who provided the committee with an overview of feedback that NSF has received regarding the ODP. In general, the program is regarded as a success as evidenced by the fact that cruises tend to accomplish their scientific goals. Heinrichs outlined some of the scientific accomplishments of the program, the scientific problems that can only be addressed through the ODP, non-scientific benefits, and the new (evolving) LRP. Heinrichs also listed several issues considered contentious by the ODP community in the area of publications, management and planning and technology development.

Rob Kidd (PCOM Chair) recounted the evolution of the Long Range Plan from the inception of the revision process involving PCOM, EXCOM and finally JOI. He described the development of the science themes and sub-themes and explained how the new initiatives had emerged and were linked to the overall science objectives. Concern that the revised LRP is sufficiently tightly focused as to leave some members of the ODP community with the perception that their science was being left out was expressed. The committee also asked for clarification on the meaning of the initiatives, querying whether they are intended as an enhancement or designed to alter the scope of the program. Kappel and Kidd were receptive to suggestions regarding further refinement of the LRP and met subsequently to jointly address the committee's comments and recommendations. JOI, with input from Kidd, will produce another revision of the LRP by the end of November.

Rob Kidd also discussed the science planning intended to accompany the revised LRP. The program is envisioned to remain a primarily proposal driven program with the call for post 1998 proposals based on the 1995-96 LRP. The expertise on thematic panel will have to change to meet the requirements of the LRP. As ODP strives to forge links with other global geoscience program mechanisms; interaction, possibly including joint ODP/global program workshops or detailed planning groups, will be developed accordingly. In some cases, more formal ties will be initiated with programs that desire a stronger association with ODP, such as the Nansen Arctic Drilling program (NAD).

The committee also reviewed presentations from Jeff Fox and Dave Falvey on the implementation and funding of the science set forth in LRP, respectively. In addition, Rob Kidd and Dave Falvey reported on the technology development and other platforms required for the implementation of the LRP. In particular, Charles Sparks, former TEDCOM chair, delivered a presentation on a slim line riser system to the committee.

### **9.2 Feedback to proponents (Scrutton)**

A check list of items to consider for inclusion in the feedback to proponents is included as Appendix C. Watchdog letters should not be sent out until PCOM decides on the drilling prospectus for 1997, which will happen by mid to end December 1995. At that time Srivastava will notify all members of the results which may then be passed on to the proponents.

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

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

### **9.3 Membership in the panel and attendance (Scrutton/Ellins)**

The question of the increase in absentees at the SSP meetings was again brought to the attention of panel members by Srivastava and the choice of appointing alternate US members was discussed. The discussion centred around whether to appoint alternate members on a one to one basis or a group of them from which to invite the appropriate numbers as the

need arose. There are merits in both and no consensus existed. This will be an item for discussion at PANCH meeting.

The only member whose term will be expiring after this meeting is Karl Hinz and since he was not at the meeting no action was taken. Srivastava will be contacting him to find out more about it.

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

#### **9.4 Items for PANCH meeting (Scrutton)**

Srivastava mentioned four items for such a meeting. One, appointment of alternate US members; two, the making of the prospectus and how it effects SSP role in carrying out its task effectively; third, SSP role in overseeing that high priorities, as expressed by the thematic panels for drilling certain holes, can be adequately addressed by the data package supplied by the proponents; and fourth, alternates sites for ice-infested waters.

#### **9.5 New publication and conflict of interest policies (Ellins/Scrutton)**

The letters from PCOM dealing with these issues were circulated to all members and considerable discussion took place about both. Differences of opinion existed on the merits and drawbacks of publishing articles from a given leg in an outside journal prior to its inclusion in the SR. The idea of publishing in the outside journal, however, was viewed very positively by most but whether it will decrease the effectiveness of SR as a significant scientific volume was not clear. Furthermore, some felt that such a quick publication may not have as much of an impact as a well synthesised paper at a later time. Policing publication of articles in outside journal, meeting all the stated guidelines under section 5, may be a problem.

The panel would like to see publication of as much site survey data in the IR volume as possible in the most legible form.

On the legacy hole: The panel liked the idea but suggests that selection of such "legacy holes" by the thematic panels should be carried out as early in the program as possible so that the requirements for additional data, if required, at such sites can be included by SSP during their site survey evaluations and communicated to the proponents.

On the conflict of interest policies: The panel did not find the changes too unsatisfactory with the exception of sections 11.04 and 11.05. It was felt by the panel that strict adherence to the guidelines would make working of this panel less effective where at times the site survey data collected by a panel member is viewed with him/her for more clarification purposes and not for any indulgence in the scientific discussion or ranking of their proposals. It was felt that we must be guided by the conflict of interest rules and not ruled by them as our decisions must be based on some combination of policies and informal trust in our colleagues' integrity. Similarly restricting appointments of Co-Chiefs as stated, according to some, would restrict willingness of most qualified and knowledgeable members to serve on the panels. This should be clearly spelled out to would-be panel members when approached by the chair.

#### **9.6 Next two Meetings (Srivastava)**

The following schedule for the next three meetings in 1996 was agreed upon.

March 27-29. Edinburgh, Scotland

July 29 - August 1. LDEO

November 11-13. LDEO

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

Srivastava had sent e-mail to all members asking their opinion on increasing the length of the July meeting to three and a half days. Only one member opposed such an idea. Some favoured having one of the weekend days included in it in order to reduce their time away from the office while others did not. It was decided to hold the next July meeting over a three and a half days period to see how it works out.

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

#### **9.7 Any other business item (Scrutton)**

The panel wishes to thank Dan Quoidbach, Greg Mountain, and staff of ODP Data Bank, all from Lamont-Doherty

Earth Observatory, for hosting this meeting and making it such a pleasant and enjoyable event. Special thanks go to the ODP Data Bank staff for organising the lunches and coffees for the meeting and attending to numerous requests from the panel members.

The panel also thanks Roger Scrutton for Chairing this meeting so efficiently.

## Appendix A

Site Survey Readiness Classification of proposals considered during November 95 and July 95 meetings												
Global ranking		1. Presently viable proposal for FY 97 drilling.		2. Possibly viable proposal for FY 97 drilling; likely for FY 98			3. Unlikely for FY 97; possible for FY 98.		4. Impossible for FY 97.	5. Impossible for FY 97.	6. Not considered - new data does not match proposal.	7. Not considered - no data has been submitted to DB
FR 95	SR 95	1A	1B	2A	2B	2C	3A	3B				
	S-1	473	473									
L-1, T-6	L-1	300*, 300(Leg 1)				300*, 300 (Leg 2)						
T-1	T-2			461	461							
O-1, S-3	O-1				354, 354							
S-1, O-5	S-3				348, 348							
T-2, S-6		475										
L-2, S-2				481								
O-2	O-5	462, 462										
L-3, T-7	L-2			480*	480, 480*							
O-3, S-5	O-3				464, 464							
T-3, O-7	T-1			447	447							



## Site Survey Readiness Classification of proposals considered during November 95 and July 95 meetings

Global ranking		1. Presently viable proposal for FY 97 drilling.		2. Possibly viable proposal for FY 97 drilling; likely for FY 98		3. Unlikely for FY 97; possible for FY 98.		4. Impossible for FY 97.	5. Impossible for FY 97.	6. Not considered - new data does not match proposal.	7. Not considered - no data has been submitted to DB
<b>S-4</b>				<b>476</b>							
<b>O-4, S-7</b>	<b>O-4</b>	<b>404</b>	<b>404</b>								
<b>T-4, L-6</b>	<b>T-4</b>			<b>468*</b>	<b>468</b>						<b>468*</b>
<b>L-4, T-5, O-6</b>	<b>L-4</b>			<b>457</b>		<b>457 (Leg A)*</b>		<b>457 (Leg B)*</b>			
<b>L-5</b>		<b>424</b>									

\*: Refer to minutes for explanation.

Bold letters and numbers refer to FR 95 ranking.

**Appendix B**

<b>SSP Watchdog Assignments Scheduled Legs</b>										
<i>Leg</i>	<i>Proposal Name</i>	<i>Prop. No.</i>	<i>July 1993 (Lamont)</i>	<i>Nov 1993 (Lamont)</i>	<i>April 1994 (Brest)</i>	<i>July 1994 (Lamont)</i>	<i>Nov 1994 (Lamont)</i>	<i>APRIL 1995 (BIO)</i>	<i>July 1995 (Lamont)</i>	<i>Nov 1995 (Lamont)</i>
164	Gas Hydrate	423-rev	Camerlenghi	Camerlenghi	Quoidbach	Camerlenghi/Quoidbach	Quoidbach	Camerlenghi/Quoidbach	Lykke-Andersen/Quoidbach	data set complete
165	Caribbean - Ocean History	434	proposal not yet ranked	Kastens (Car-aco)		OHP: Mountain	OHP: Mountain	Mountain/Quoidbach	Diebold/Quoidbach	Flood/Quoidbach
166	Bahamas Transect (sea level & fluid)	412-Add	no data package	Sibuet	Sibuet	Sibuet	Sibuet	Enachescu/Quoidbach	Enachescu/Quoidbach	data set complete
167	California Margin	386-Rev, 422-Rev	Camerlenghi	Camerlenghi	Lykke-Andersen	Camerlenghi/Tokuyama	Tokuyama	Camerlenghi/Quoidbach	Flood/Quoidbach	Flood/Quoidbach
168	East Juan de Fuca hydrothermal	440	not yet submitted	not yet submitted	Srivastava	Srivastava	Srivastava/Casey	Casey/Quoidbach	Quoidbach	Sibuet/Quoidbach
169	Sedimented Ridges II	SR-DPG	Hinz	Srivastava	Srivastava	Srivastava	Srivastava/Casey	Casey/Quoidbach	Quoidbach	Casey/Quoidbach
170	Costa Rica acc. wedge	400, 400-Rev	Camerlenghi	not discussed: not in FY 95 prospectus	Lykke-Andersen	Camerlenghi	Peterson	Tokuyama	Tokuyama/Quoidbach	Tokuyama/Quoidbach

**SSP Watchdogs**  
**Highly-ranked Unscheduled Proposals**

<i>SR '93</i>	<i>FR '93</i>	<i>SR '94</i>	<i>FR '94</i>	<i>SR 95</i>	<i>FR 95</i>	<i>Title</i>	<i>Prop.</i>	<i>Nov. 1993 (Lamont)</i>	<i>April 1994 (Brest)</i>	<i>July 1994 (Lamont)</i>	<i>Nov. 1994 (Lamont)</i>	<i>April 1995 (BIO)</i>	<i>July 1995 (Lamont)</i>	<i>Nov 1995 (Lamont)</i>
				L-1	L-1, T-6,	Return to 735B (Atlantis II FZ)	300-rev	Srivastava	Srivastava/Quoidbach	out of geographic area	out of geographic area	Casey	Scrutton	Casey
		S-1, O-3, (tie)		S-3	S-1, O-5	New Jersey Sealevel II	348-add		Kastens	Farre	not in prospectus	Kastens	Flood	Flood
O-3		O-6, S-7		O-1	O-1, S-3	Benguela Current	354-Rev, 354-Add	not in FY 95 prospectus	Farre	out of geographic area	out of geographic area	Hinz	Lyle	Lyle
				T-5	--	Peruvian Margin /Gas Hydrate	355-Rev5	-----	-----	-----	-----	Camerlenghi	Diebold	not in prospectus
				S-6	--	Australian Bight Carbonate	367	-----	-----	-----	-----	Enachescu	Enachescu	not in prospectus
O-6	O-2	O-7	O-3	O-4	O-4, S-7	NW Atlantic drifts	404,404-Rev, Rev2	Mountain	Mountain	Mountain	Mountain	Mountain	Lykke- Andersen	Lykke- Andersen
			O-4	O-5	O-2	Blake Plateau & Blake Nose	404add 462		not yet submitted	discovered in DB cubbyhole	Mountain	Mountain	Lykke- Andersen	Lykke- Andersen
L-12, O-4		L-1, O-1	O-1, L-6, S-6	L-2	L-4, T-7	Caribbean	384rev3, 408R2, 411, 415-Rev, 480	not in prospectus	Mountain	LITH: Hinz	LITH: Scrutton	Hinz	Scrutton	Casey
					L-5	Cork site 395A	424							Toomey
		L-5		L-5	--	Austr.-Antarc. Discordance	426	not in prospectus	Kastens	out of geographic area	out of geographic area	Kastens	Enachescu	not in prospectus
				L-6	--	Izu-Mariana Mass Balance	(435-Add2), 472	-----	-----	-----	-----	Scrutton	out of geographic area	not in prospectus

**SSP Watchdogs**  
**Highly-ranked Unscheduled Proposals**

<i>SR '93</i>	<i>FR '93</i>	<i>SR '94</i>	<i>FR '94</i>	<i>SR 95</i>	<i>FR 95</i>	<i>Title</i>	<i>Prop.</i>	<i>Nov. 1993 (Lamont)</i>	<i>April 1994 (Brest)</i>	<i>July 1994 (Lamont)</i>	<i>Nov. 1994 (Lamont)</i>	<i>April 1995 (BIO)</i>	<i>July 1995 (Lamont)</i>	<i>Nov 1995 (Lamont)</i>
				S-7	--	Nicaragua	(435-Rev), 471	-----	-----	-----	-----	Scrutton	Scrutton	not in prospectus
		O-5			--	Southwest Pacific Gateway	441	not yet submitted	Peterson	out of geographic area	out of geographic area	Peterson	out of geographic area	not in prospectus
		T-5		T6	--	Mariana back-arc basin	442	not yet submitted	Tokuyama	out of geographic area	out of geographic area	Tokuyama	out of geographic area	not in prospectus
				S-4 T-7	--	Nankai defor. & fluids	445-Rev	-----	-----	-----	-----	Camerlenghi	out of geographic area	not in prospectus
		T-1		T-1	T-3, O-7	W. Woodlark Basin	447	not yet submitted	Farre	out of geographic area	out of geographic area	Enachescu	Enachescu	Enachescu
				L-3	--	Ontong Java Plateau origin	448					Tokuyama	out of geographic area	not in prospectus
		T-3		T-3	--	Taiwan arc/cont collision	450	not yet submitted	Sibuet	out of geographic area	out of geographic area	Scrutton	out of geographic area	not in prospectus
				L-7	--	Tonga Forearc	451-Rev2					Scrutton	out of geographic area	not in prospectus
				L-4	L-4, T-5, S-6	Kerguelen Plateau	457-Rev					Hinz	Tokuyama	Tokuyama
T-2	T-4	T-4	T-3	T-2	T-1	NARM non-volcanic (Iberian margin II)	NARM-NV 461,461-add	Mountain	Mountain	Mountain	Mountain	Mountain	Diebold	Enachescu
				O-3	O-3, S-5	Southern Ocean Paleo.	464	----	----	----	----	Peterson	Flood	Peterson
				O-6	--	SE Pacific Paleoceano-graphy	465	----	----	----	----	Peterson	Tokuyama	not in prospectus

1/17/96 12:47 pm

**SSP Watchdogs**  
**Highly-ranked Unscheduled Proposals**

<i>SR</i> <i>'93</i>	<i>FR</i> <i>'93</i>	<i>SR</i> <i>'94</i>	<i>FR</i> <i>'94</i>	<i>SR</i> <i>95</i>	<i>FR</i> <i>95</i>	<i>Title</i>	<i>Prop.</i>	<i>Nov. 1993</i> <i>(Lamont)</i>	<i>April 1994</i> <i>(Brest)</i>	<i>July 1994</i> <i>(Lamont)</i>	<i>Nov. 1994</i> <i>(Lamont)</i>	<i>April 1995</i> <i>(BIO)</i>	<i>July 1995</i> <i>(Lamont)</i>	<i>Nov 1995</i> <i>(Lamont)</i>
				T-4	T-4, L-6	Romanche FZ	468	-----	-----	-----	-----	Kastens	Diebold	Toomey
				S-1	Leg 169S	Saanich Inlet	473	-----	-----	-----	-----	Casey	Lyle	Lyle
					T-2	Physical prop. accret. prisms	475							Sibuet
					S-4	Hudson apron	476							Flood
					L-2, S-2	Red Sea	481							Scrutton

## Appendix C

### ***SSP Feedback to proponents***

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

List of things to include:

- the name and contact information of the watchdog,
- a copy of the section of the draft minutes dealing with the proposal,
- copies of the SSP worksheets, if the data package is sufficiently mature to enable the watchdog to fill out worksheets.
- the target types within the SSP guidelines against which each site will be evaluated,
- for each data type classified as "X\*" or "Y\*", an indication of whether SSP will or will not require this particular data type for these particular sites,
- an indication of additional data types that SSP might require in support of secondary or non-standard drilling objective in circumstances not well covered by SSP guidelines,
- an indication of any potential safety issues,
- for sites in areas of hydrocarbon exploration or production, a reminder that data from commercial wells in the area will eventually be needed for safety review
- for sites in <200m water depth, a reminder of shallow water drilling hazard survey requirements
- for sites in heavily travelled areas or near shore sites, a reminder that information on potential manmade hazards (cable routes, dump sites) will be needed for operational planning
- advice on other investigators who may have relevant data in the region,
- advice on survey ships that may be able to visit the area.
- reminder of timing of next data deadline and next SSP meeting.
- mention about the need to place suitable markers if a HRGB is planned to be used and that the proponents should be in contact with TAMU engineers, in particular with Jay Miller, about it. Enclose a copy of the guidelines on marking these sites using submersibles as outlined by Jay Miller from TAMU.
- Send a copy of your watchdog letter to Milly Giarratano, ODP Data Bank.
- Send the watchdog letter to the lead proponent of the proposal. Ask Shiri for advice if there is not a single obvious lead proponent with whom to communicate.
- Send a copy of "Quantitative Classification of proposals" with your letter.

### **Site Survey Readiness Classification Scheme.**

- 1. Presently viable proposal for FY 97 drilling.**
  - 1A.** All required data are in the data bank
  - 1B.** A few required items are missing from the data bank, but data are believed to exist and to be readily available.
- 2. Possibly viable proposal for FY 97 drilling; likely for FY 98**
  - 2A.** Substantial items of required data are not in the data bank but are believed to exist and are likely to be available in time for consideration for FY 97 drilling schedule.
  - 2B.** Substantial items of required data are not in the data bank, not believed to exist but could be available in time for consideration for FY 97 drilling if a **scheduled** site survey proceeds as planned.
  - 2C.** Substantial items of required data are not in the data bank, not believed to exist but could be available in time for consideration for FY 97 drilling if a **proposed** site survey proceeds as planned.
- 3. Unlikely for FY 97; possible for FY 98.**
  - 3A.** Required data are not in the data bank, not believed to exist but are likely to be available in time for consideration for FY 98 drilling if a **scheduled** site survey proceeds as planned.
  - 3B.** Required data are not in the data bank, not believed to exist but could be available in time for consideration for FY 98 drilling if a **proposed** site survey proceeds as planned.
- 4. Impossible for FY 97:** Required data are not in the data bank and not believed to exist. Data could be available after FY 97 if a **proposed** site survey proceeds as planned.
- 5. Impossible for FY 97:** Required data are not in the data bank and not believed to exist. A site survey needs to be conducted but is not proposed at this time.
- 6. Not considered** because data in the Data Bank does not match present proposal; awaiting a new proposal.
- 7. Not considered** because no data has been submitted to the data bank.