

## JOIDES SITE SURVEY PANEL MEETING

July 16 - 19, 1997  
Lamont-Doherty Earth Observatory,  
Palisades, New York, USA

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**Members:** Srivastava, Shiri (*GSC Atlantic, Canada*) -- Chair  
Casey, Jack (*U. Houston, USA*)  
Christeson, Gail (*U. Texas, Austin, USA*)  
Diebold, John (*L-DEO, USA*)  
Enachescu, Michael (*Husky, Canada*)  
Flood, Roger (*SUNY, USA*)  
Hinz, Karl (*BGR, Germany*)  
Jones, John (*U. College London, UK*)  
Lykke-Andersen, Holger (*U. Aarhus, Denmark*)  
Paull, Charles (*U, North Carolina, USA*)  
Peterson, Larry (*RSMAS, USA*)  
Sibuet, Jean-Claude (*IFREMER, France*)

**Liaison:** Ball, Mahlon (*PPSP*)  
Ellins, Kathy (*JOIDES Office*)  
Klaus, Adam (*ODP/TAMU*)  
Quoidbach, Daniel (*ODP Data Bank*)  
Tamaki, Kensaku (*SCICOM*)

**Alternate:** Saito, Saneatsu (*ORI, Japan*)

**Apology:** Bruce, Malfait (*NSF*)  
Tokuyama, Hidekazu (*ORI, Japan*)  
Woodside, John (*SciMP*)

## AGENDA

*JOIDES Site Survey Panel Meeting  
July 16-19, 1997  
Lamont-Doherty Earth Observatory,  
Palisades, NY, USA*

- 1. PRELIMINARY MATTERS (Srivastava)**
  - 1.1 Introduction of members, liaison, guests and meeting logistics.
  - 1.2 Charge and procedures for the meeting
  - 1.3 Watchdog assignments
  - 1.4 Feedback to proponents
  - 1.5 Action items from April 1997 Tokyo meeting
- 2. REPORTS**
  - 2.1 SCICOM (Tamaki)
  - 2.2 PPSP (Ball)
  - 2.3 ODPDB (Quoidbach)
  - 2.4 TAMU (Klaus)
  - 2.5 JOIDES (Ellins)
  - 2.6 ISSEP (Casey)
  - 2.7 ESSEP (Peterson)
  - 2.8 SciMP (Srivastava)
  - 2.9 PPG-LTO (Christeson)
- 3. SITE SURVEY IMPLICATIONS OF RECENTLY DRILLED LEGS**
  - 3.1 Leg 172: NW Atlantic sed. Drift (Flood/Klaus)
  - 3.2 Leg 173: Iberia margin (Enachescu/Klaus)
- 4. SITE SURVEY STATUS OF UPCOMING SCHEDULED LEGS FOR 97 & 98 \***
  - 4.1 Leg 176: Return to 735B; 300 (Casey) \*\*
  - 4.2 Leg 178: W. Antarctic Pen. 452 & 502 (Lykke-Andersen)\*\*
  - 4.3 Leg 179: NERO & Hammer Drilling (Christeson)
  - 4.4 Leg 180: Woodlark Basin 447 (Enachescu)\*\*
  - 4.5 Leg 181: SW Pacific Gateway 441 (Peterson)
  - 4.6 Leg 182: Aus. Bight Carbonate 367 (Enachescu)\*\*
  - 4.7 Leg 183: Kerguelen 457 (Saito)
- 5. POTENTIAL FUTURE DRILLING: SSEP (Earth Int.)**
  - 5.1 426 Australia-Antarctica Discordance (Sibuet) 2C
  - 5.2 431: Western Pacific Seismic Network (Christeson) 2A
  - 5.3 445: Nankai Trough Accretionary Prism (Paull) 1B
  - 5.4 448: Ontong Java Plateau Origin (Jones) 3A
  - 5.5 450: *Taiwan arc-continent collision* (Sibuet) PPSP 1A
  - 5.6 451: *Tonga Forearc* (Diebold) 1A
  - 5.7 463: *Plume Impact at Shatsky Rise* (Hinz) 1B
  - 5.8 472: Mass Balance: Izu Mariana (Diebold) 1A
  - 5.9 499: *ION Equatorial* (Christeson) 3B
- 6. POTENTIAL FUTURE DRILLING: SSEP (Earth Env.)**
  - 6.1 355: Peruvian Margin Gas-Hydrate (Diebold) 2C
  - 6.2 455: Laurentide Ice Sheets, (Lykke-Andersen) 2A
  - 6.3 465: SE Pacific Paleooceanography (Peterson) 2B
  - 6.4 482: *Wilkes Land Margin: Cenozoic Glacial History* (Flood) 3A
  - 6.5 484: East Asian Monsoon History (Paull) 3B
  - 6.6 485: *Southern Gateway Aus.-Antarctica* (Casey) PPSP 1A
  - 6.7 486: Paleogene Equatorial Pacific APC transect (Flood) 3A

- 6.8 489: *Ross Sea, Antarctica: Paleoceanography (Casey) 1B*  
6.9 490: *Prydz Bay Glacial History (Paull) 2A*  
6.10 503: *Weddell Sea: Evolution and Paleocirculation (Hinz) 1B*

## 7. OTHER BUSINESS

- 7.1 Panel Membership (Srivastava)  
7.2 Next meeting (Srivastava)  
7.3 Other business (Dan Quoidbach)

## 8. Visit to JOIDES Resolution

--- For Legs 175, and 177 data sets were approved at previous SSP meetings and no changes have taken place since.

\*\* --- Approved by PPSP

2A ----- SSP ranking from April meeting.

PPSP - items in the proposal of concern to PPSP

Low ranking by ESSEP and ISSEP e.g. 6.4 482: *Wilkes Land Margin*:

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## Executive Summary

### **Charge and procedures for the meeting (Srivastava)**

Srivastava explained the charge for this meeting and how this meeting is conducted. He also explained, for the benefit of those new to this panel, the role of this panel in JOIDES. The goals for this meeting were to: (1) to evaluate the site survey readiness of proposals recommended by the two SSEP, (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 November meeting. The main customer for the output of this meeting are the proponents of proposals and OPCOM, who will use the evaluations resulting from item (1) above as input into designing the drilling schedule for FY'99 at their August meeting. *Some discussion took place on the number of proposals SSP will be looking at each meeting and whether they all would have gone for outside review. It was explained that this would be the case normally but in the meanwhile SSP is required to look at some of the proposals which have not been through the review process. This is because SSEP's lists should contain proposals which normally would have gone through outside reviews.*

Majority of the business items of this meeting were discussed during the first day to allow as much time to the watchdogs for data examination during the first two days. The discussion resulted in formulating the following action items, recommendations and point of consensus during the meeting.

**SSP recommendation # 1 to SCICOM:** SSP recommends to SCICOM the continuing availability of a high-resolution single or multiple channel seismic system on board *Joides Resolution* for its use where on-site data acquisition is required for a successful scientific program.

### **Explanatory note:**

The success with which sites could be selected by collecting additional high resolution seismic data on board *Joides Resolution* during Leg 152 has clearly demonstrated the desirability of having a good quality high resolution single or multiple channel seismic system on board *Joides Resolution* for on-site data acquisition.

**SSP recommendation # 2 to SCICOM:** SSP recommends to SCICOM that consideration be given to setting up a PPG on Gas Hydrates to address the outstanding issues which have arisen from drilling into the gas hydrates and to design new strategies for drilling through them.

### **Explanatory note:**

There has been much recent interest in the role of gas hydrates in the ocean as a source of methane gas and a mechanism for climate feedback. Advances in our knowledge about gas hydrates have been made through ODP studies in

active (Chile, Cascadia, Costa Rica) and passive (Blake Outer Ridge) margin settings. The results of these ODP studies raise important questions regarding the level of sophistication of future studies and experiments (geophysical and geochemical) designed to tackle gas hydrate objectives, and the associated logging and downhole sampling programs. Specific questions include: (1) what kinds of scientific programs need to be proposed to advance our understanding of gas in sediments, including hydrates, bottom-simulating reflectors, and their lateral and temporal variability? There are links to the deep biosphere because much of the shallow gas in sediments appears to have a microbial origin. Also, gas hydrate formation may be strongly linked to fluid flow within the margin. (2) What kinds of advances in sampling and down-hole measurement strategies are appropriate? (3) What types of pre-drilling data are appropriate for future sediment gas (including hydrate) studies. In particular, how should imaging techniques be used to help define drilling studies or targets, and are there new and/or advanced methodologies that should be encouraged? These kinds of discussions go beyond the SSP mandate (although SSP does need to comment on whether site data is adequate for drilling designed to meet specific objectives), but appear to be appropriate for a PPG.

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**Action item #1:** All watchdogs to write to lead proponents of the proposals discussed at the meeting soon after the preliminary minutes are received, reporting on the sense of the SSP discussion and enclosing relevant section of the minutes. A copy this letter **MUST** be sent to the Data Bank . Those who are unable to do so should let the Chair know about it. This material can be sent by e-mail.

**Action item #2:** Data Bank manger, Dan Quoidbach, to write to the Co-Chiefs of designated legs discussed, reporting the sense of SSP discussion and enclosing relevant portion of the minutes about their Legs.

**Action item # 3:** Srivastava to raise the question of external reviewers comments during OPCOM meeting

**Action item # 4 :** Srivastava to write to SCICOM with the selected names of US candidates for their appointments to this panel as three new members and one replacement member.

**Action Item # 5:** SSP Chair Srivastava to write to SCICOM asking for their permission to hold SSP winter meeting from February 24 to 26, 1998 in Berlin Germany. The meeting will be hosted by Karl Hinz, our German member.

**Action Item # 6:** Dan Quoidbach to have ready the new ODP guide booklet together with data forms for circulation to SSP members and liaisons for comments as soon as possible.

**Action Item # 7:** Srivastava to write to SCICOM informing them of the following SSP members as liaisons to the two SSEP October meeting.

*SSEP Earth Interior:* November 97 meeting ----- Diebold  
Alternate ----- Jean-Claude Sibuet

*SSEP Earth Environment:* November 97 meeting ----- Charlie Paull  
Alternate ----- Roger

**Action item # 8 :** Srivastava to write to SCICOM informing them of our decision concerning the attendance at the next PPG meeting of Long Term Observatory by our Japanese member.

**Action item # 9 :** Srivastava to write to SCICOM suggesting names of the SSP liaisons to SSEPs and PPG's.

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**SSP Consensus # 1:** SSP reiterates that all the required data is now available in order to deepen Site 735B (Leg 176). However, SSP continues to request that the proponents submit a survey map derived from the JOIDES Resolution video tapes to show the distribution of sediments, slopes and potential alternate sites near Site 735B. The proponents indicated they would reconstruct the video track from the audio portions of the tape because the original JR track map cannot be located. This is important given the potential of selection of alternate sites if difficulties in deepening 735B are encountered (see PCOM MOTION 95-3-11). As the drilling on Leg 179 is now to take place near site 735B it is essential that such a video tape be assembled with the assistance from the co-Chief scientist of this leg.

**SSP Consensus # 2:** The proponents/ co-chiefs are encouraged to supply migrated versions of the new Palmer Deep profiles to the Data Bank. They are also requested to submit updated Site Summary Forms and location map for the new Palmer Deep Site (APSHE-13B). With this submission the data package for Leg 178 will be complete.

**SSP Consensus # 3:** Drilling during Leg 179 will accomplish two objectives: 1) drilling a borehole into basement on the Ninetyeast Ridge for installation of a broadband ocean seismometer, and 2) test of the hammer drilling system near Site 735B. Plans call for reoccupation of either ODP Site 756 or 757 on the Ninetyeast Ridge, and tests of the hammer drilling system near Site 735B. Jack Casey, chief scientist of the leg, will submit to the data bank a reconstructed video survey map of the JOIDES Resolution video tape from Site 735B drilling with navigation for purposes of site selection for hammer drilling. Since site survey data for these previously drilled sites are already on file with the ODP Data Bank, SSP considers the site survey readiness status to be 1A.

**SSP Consensus # 4:** SSP acknowledges that a complete data package for the Woodlark Basin Leg 180 exists in the Data Bank. All four sites are well-documented. The leg is ready for drilling.

**SSP Consensus # 5:** New survey data for six of seven primary SW Pacific Gateway (Leg 181) sites have been submitted to the ODP Data Bank since our Tokyo meeting. Essentially all data required in support of drilling are now on file, though many of the profiles are poorly annotated. There appears to be navigation inconsistencies for the MCS line submitted in support of Site SWPAC-2A, while additional data from the survey line that crosses Site SWPAC-8B is requested. Prior to formal safety review of this leg by PPSP, the submission of more clearly annotated profiles is required along with a more explicit rationale for the selection of target depths based on regional stratigraphic correlations.

**SSP Consensus # 6:** SSP acknowledges that a complete data package for the Australia Bight Carbonate 367 Leg 182 exists in the Data Bank. All the sites are well-documented and approved by SSP and SP. The leg is ready for drilling.

**SSP Consensus # 7:** SSP acknowledges receiving high quality MCS processed data from two of the sites (KIP6B and KIP7A) of Leg 183 (Kerguelen Plateau). It recommends that the proponents/co-chiefs of this leg should submit 1) migrated data from site KIP 13A together with a detailed track map and 2) the reprocessed SCS profile from site KIP 9A before February 1998 data deadline to the DB, for the SSP approval during their Feb 98 meeting. Any additional data to be collected during a French cruise in Jan-Feb 98 at sites KIP3A & 2B/9A must be processed and deposited with the DB before July 98 deadline in order to get SSP and PPSP approvals. Site Survey status for his Leg remains 2B.

**SSP Consensus # 8:** Based on the newly collected data for proposal 426 (Aus.-Antrac. discordance) 19 sites can be identified with adequate thickness of sediments to drill. It is the considered opinion of the main proponent that with these approved sites the drilling objectives for this proposal now can be achieved. In SSP opinion most of the required data for this proposal now exist and, hence, this proposal is rated as 1A. Additional data will need to be collected by J/R if it becomes a scheduled leg to ensure the horizontal extent of the sediment pockets at the drilling sites.

**SSP Consensus # 9:** Data in support of all four western Pacific seismic network (proposal 431) sites now exist and have been submitted to the data bank. At present, no velocity control exists for the four sites, although OBS data was collected at the JT sites and still remains to be modelled. The Site Survey Panel expressed concern about the estimates of sediment thickness at the Japan Trench sites - if it is critical for the scientific objectives to reach basement, accurate velocity information is essential. All sites are classified as 2A in terms of present site survey readiness.

**SSP Consensus # 10:** No additional data has been received for **proposal 445 (Nankai Trough)** since the last meeting. Detailed navigation plots that merge the major data types are still missing. It is requested that Japanese proponents of this proposal should make every effort of depositing this data in the data bank as soon as possible. The proposal readiness from site survey point of view still remains as 1B (some essential data not in the DB but believed to exist).

**SSP Consensus # 11:** That Dr Kroenke and other proponents of **proposal 448 (Ontong Java)** (a) enquire whether MCS data can be acquired over each site during an ORI cruise of Hakuho Maru in the area during January-March 1998 and (b) to keep the SSP informed about any further development in the status of the site survey data. SSP ranking remains 3A (unlikely for 1999, site survey planned).

**SSP Consensus # 12:** All vital data for **proposal 450 (Taiwan arc-continent collision)** has been deposited in the DB. The proposal was rated 1A during the November 1996 SSP meeting, which means that it is ready for its consideration as a drilling leg. However, a PPSP pre-review would be required for sites TC2A and TC7A where the BSR would be drilled. A true amplitude plot of Ewing line 29 or Moana Wave line 30 would be required for the PPSP pre-review. The proposal still remains as 1A from site survey readiness.

**SSP Consensus # 13:** All required data for the **Tonga Forearc proposal (451)** now resides in the Data Bank. This proposal, from an SSP perspective, is ready to be considered for drilling. However, ISSEP has suggested a revision of the proposal.

**SSP Consensus # 14:** 3.5 kHz PDR data, migrated, 6-channel seismic reflection data and detailed Hydrosweep bathymetric maps for all proposed sites for **proposal 463 (Shatsky Rise)** are in the DB. Although the migrated seismic reflection data are considered to be adequate to identify the basement there remains some concern regarding the interpreted surface of the volcanic edifice at sites SRS-2, -2B, -2C, -3, -3B. If the top of the distinct 0.15-0.2 (tw) thick sequence, interpreted by the proponents as basalt, is a depositional unit, the primary holes SRS-2 and SHS-3 have to be deepened in order to reach the targets or to be moved unless the proponents provide plausible arguments that exclude a depositional nature of this distinct sequence. With this modification the data set will be complete, though deep penetration MCS data would greatly enhance the interpretation of the results of deep drilling. Short surveys by the drill ship would be desirable, to provide cross lines at those sites which lack them.

**SSP Consensus # 15:** A good data package has been assembled for **Izu-Mariana Convergent Margin proposal (472)**. The package was judged to be complete and the proposal ready for drilling. If any palaeoceanography objectives are intended, a good quality SCS profile through the BON site must be collected by the JOIDES Resolution.

**SSP Consensus # 16:** **Proposal 499 (ION equatorial)** calls for drilling a hole near ODP site 852 for seismometer installation in support of the ION and OSN programs. Based on recent discussions by the Long-Term Observatory PPG, the wavelengths and frequencies important to the scientific objectives of this proposal, and discussions within the Site Survey Panel, the SSP has decided to relax their previously stated site survey requirements. SSP now requires: 1) new displays at an appropriate scale of the existing SCS profiles with site location and penetration marked, and 2) map of satellite gravity and magnetics for the region to insure that sites are free of major structure and outside of any regional anomalies. This site is classified as 2A in terms of site survey readiness.

**SSP Consensus # 17:** The existing data set supporting ODP leg 112 is present in the data bank, and partially fulfills the requirement for **proposal 355, Peru Margin Gas Hydrates**. Additional high quality MCS data, along which the proposed sites are located, have been submitted to the data bank, but it is not certain whether these lines allow the proper siting of the proposed holes in relation to the gas hydrate horizon [BSR] as they cross obliquely. Large scale navigation plots locating each site within the grid of existing seismic lines should be made and submitted to the DB, as should 3.5 data, if available. The SSP feels that the scientific objectives of the BSR drilling can't be confidently achieved without the acquisition of additional MCS lines which will allow a better 3D characterization of the BSR around sites P4, P5, and P6.

**SSP Consensus # 18:** Good quality data have been submitted to the Data Bank for **proposal 455 (Laurentide Ice Sheet Outlets)**. The panel look forward to receive the proponents evaluation of the problematic features noted at the site LAW01A.

The proponents are encouraged to submit working scale track maps with core sites and proposed sites indicated. Many of the records are not annotated with vertical scales making it difficult to see the drilling targets. The proponents **MUST** supply this information at least at the proposed sites. The proponents are also encouraged to provide the still missing 3.5 kHz data, SCS data and velocity data at the sites as noted.

**SSP Consensus # 19:** Proponents of the **SE Pacific Paleooceanography program (465)** have submitted an exceptionally well documented data package resulting from their recent site survey cruise aboard R/V *Roger Revelle*. Based on this submission, SSP has upgraded the site survey readiness status of this program to 1B, with 3.5 kHz profiles the only data item not yet submitted to the ODP Data Bank. We look forward to seeing the continued evolution of this exciting proposal and to reviewing in more detail at future meetings the subset of sites selected as primary drilling targets.

**SSP Consensus # 20:** Additional data were provided to the Data Bank for **proposal 482 (Wilkes Land)**, but no sites are marked on profiles and no positions are provided for newly named sites. A revised proposal is expected by September 15, and additional data needs to be submitted (suitable for Type B objectives) when requested by the Data Bank or JOIDES Office. The proponents should submit profiles that allow assessment of the lateral continuity of key seismic horizons, and the three-dimensionality of structures to be sampled should be determined. Clearer links between this proposal and an upcoming cruise by the Observatorio Geofisico Sperimentale of Trieste need to be demonstrated. Alternate sites for bad ice conditions also need to be prepared. The proposal is rated 3A.

**SSP Consensus # 21 :** There are serious problems with the data package supplied to the Data Bank for **proposal 484 (South China Sea)**. Many of the sites lack cross lines especially sites located over structural highs. A large amount of data seem to exist in the region and this need to be put together by the proponents. Once this has been done, it is likely that it may result in change in locations of several of the sites. Safety concerns were voiced earlier on for this proposal and these needs to be addressed vigorously as the proposal if approved for drilling may be previewed by PPSP. Large scale seismic lines for all sites need to be deposited with the data bank. Site survey readiness is rated as 3B.

**SSP Consensus # 22:** All of the required data for **proposal 485 (Southern Gateway Australia-Antarctic)** is now submitted to the DB. The proponents are thanked for their efforts in processing all the required data and depositing it with the Data Bank in time for SSP meeting. This proposal is now ready to be considered for drilling unless some of the sites are changed as proposed by ISSEP. In that case the new sites would have to be examined by the panel during their next meeting.

**SSP Consensus # 23:** An evaluation of existing data at proposed drill sites suggests that suitable sediment sequences will be observed during an upcoming R/V Ewing site-survey cruise (Dec 97-Jan 98), and that sufficient data will be available to allow final site selection to be made in time for one leg of drilling (Phase 1) in FY99. On this basis the **proposal 486 (Equatorial Pacific Transect)** is rated 2B. However, sufficient historical data was not available to demonstrate suitable sediments at the northernmost site. Site-survey effort will need to be directed to show that suitable northern site(s) are available.

**SSP Consensus # 24:** A nearly complete data package has been provided in support of proposed drilling, although some required items are missing and thought to exist for the **Ross Sea proposal (489)**. The proponents must visit the Data Bank to properly annotate and relocate revised sites and cross-reference different data types for each site and provide new annotated maps. Alternatively resubmit data with proper maps and site locations and designations. Also, there will be a need for the proponents to summarize core data and the occurrence of organic sediments in near shore drill holes (e.g., CIROS holes) and in outcrop on land for a PPSP preview. Data on sediments will also be needed, especially where reentry is planned. This data package is ranked 1B, until these final items can be incorporated into the data package, at which time the proposal will be rated 1A.

**SSP Consensus # 25:** No data has been received for **proposal 490 (Prydz bay)** since the last SSP meeting. However, a site survey cruise was completed at our April meeting and a complete data package was expected at the DB for us to view at our July meeting. Correspondence from the proponents indicates that a revision is planned and an additional site survey data package will be prepared for submission to the data bank. The rating of the proposal remains 2A (Substantial data exists, not in the DB and can be made available for 1999 drilling).

**SSP Consensus # 26:** SSP encourages the proponents of **proposal 503 (Weddell Sea)** to submit the new site survey data together with the updated version of their proposal to the JOIDES Office and to the DB before the next meeting of the SSP scheduled for the second half of February, 1998. Site Survey readiness of this proposal remains 1B in view of a large amount of data already submitted to the DB earlier.

**SSP Consensus # 27:** The panel would like to thank Dan Quoidbach and **people from the Data Bank** for the care and thought they put in organising many things during this meeting.. We thank them for being such superb hosts for this meeting.

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## Minutes

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

### **1. PRELIMINARY MATTERS (Srivastava)**

#### **1.1 Introduction of members, liaison, guests and meeting logistics.**

SSP Chair Srivastava welcomed all those present, especially the new members John Jones, our UK representative who replaced Roger Scrutton and Kensaku Tamaki the new liaison from SCICOM. He mentioned appointment of John Woodside as SciMP liaison to SSP from European consortium, and John's inability to attend the meeting because of his other commitments. Dan Quoidbach, the host for this meeting, also welcomed members and outlined the planned social activities during the meeting and provided information about the various facilities at the DB which members needed to use during the meeting. The minutes of November meeting and the agenda for this meeting were approved after some discussion. It was decided to move presentation by those members who were going to be leaving the meeting earlier to an earlier time.

#### **1.2 Charge and procedures for the meeting (Srivastava)**

Srivastava explained the charge for this meeting and how this meeting is conducted. He also explained, for the benefit of those new to this panel, the role of this panel in JOIDES. The goals for this meeting were to: (1) to evaluate the site survey readiness of proposals recommended by the two SSEP, (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 November meeting. The main customer for the output of this meeting are the proponents of proposals and OPCOM, who will use the evaluations resulting from item (1) above as input into designing the drilling schedule for FY'99 at their August meeting. *Some discussion took place on the number of proposals SSP will be looking at each meeting and whether they all would have gone for outside review. It was explained that this would be the case normally but in the meanwhile SSP is required to look at some of the proposals which have not been through the review process. This is because SSEP's lists should contain proposals which normally would have gone through outside reviews.*

#### **1.3 Watchdog assignments (Srivastava)**

Srivastava outlined the new watchdog assignments as agreed upon by most before the meeting and requested some of the members to look after two of the proposals which were originally assigned to Larry Peterson because of his excessive load. The old and recent watchdog assignments on each proposal are listed in a tabular form in the Appendix A.

#### **1.4 Feedback to proponents (Srivastava)**

Srivastava restressed the need for the watchdogs to send copies of their letters to the lead proponents of the proposals soon after the meeting as these are needed in order for proponents to respond appropriately. In the past, some proponents have complained that they could not meet proposal or site survey deadlines because of the lateness of the SSP watchdog letters. Without this the entire purpose for this panel gets into jeopardy. It was agreed that copies of the relevant portion from the preliminary minutes will be sent by the watchdogs to the lead proponents as soon these minutes are received by them together with their letters. This also applies to those proposals whose status did not change as they were declared ready under class 1A.



**Action item #1: All watchdogs to write to lead proponents of the proposals discussed at the meeting soon after the preliminary minutes are received, reporting on the sense of the SSP discussion and enclosing relevant section of the minutes. A copy this letter MUST be sent to the Data Bank . Those who are unable to do so should let the Chair know about it. This material can be sent by e-mail.**

**Action item #2: Data Bank manger, Dan Quoidbach, to write to the Co-Chiefs of designated legs discussed, reporting the sense of SSP discussion and enclosing relevant portion of the minutes about their Legs.**

#### **1.5 Action items from November 1996 LDEO meeting (Srivastava)**

All action items were taken care of by those responsible for with the exception of watchdog letters by some.

## **2. REPORTS**

### **2.1 SCICOM (Tamaki)**

Tamaki presented the outline of the meeting and decisions made at SCICOM April 97 meeting. Four new PPGs will be setup at next SCICOM meetings. They are *Architecture of oceanic lithosphere, Extreme climate, environment of the Paleogene and Cretaceous, Shallow-water reef scientific drilling, and Climate-tectonics link*. Proposal submission and evaluation process is renewed as a two-step proposal system with a preliminary proposal and a full proposal. SSP's task is only related to full proposal. Deep hole drilling plan was introduced. SSP's suggestion on possible deep hole site will be appreciated. The prioritization of technological developments of Phase III and recent ODP publication problems were reported.

Question arose if PPG membership will be from member countries only. No hard and fast guidelines exist on it. If desired other members can be appointed. Next SCICOM meeting will be in April 98 at Boulder Colorado, USA.

### **2.2 PPSP (Ball)**

At our last meeting, May 26-27, 1997, Leg 178(West Antarctic Peninsula) Leg 180 (Woodlark Basin) and Leg 182 (Great Australian Bight Carbonates) were reviewed by PPSP. Data packages were excellent. All sites of all legs were approved as proposed. SSP did a fine job in assisting chief scientists in assembling these data packages.

### **2.3 ODP Data Bank (Quoidbach)**

Since the April 1997 SSP meeting the Data Bank has received 469 data items in support of JOIDES proposals. The Data Bank prepared shipboard data packages for Legs 173 and 174A, and processed safety packages for the May '97 PPSP meeting in Sydney, Australia. The data package for Leg 175 is currently being prepared.

The upgrade of the LDEO ethernet network has been completed and the Data Bank's inkjet plotter is now being used. Within the next several weeks the microcomputers will be placed onto the new network, thus affording us much faster data transfers between machines.

Work continues on the new data tracking database. The consultant has worked out the logic of the system and has presented a prototype to us for evaluation. Work is now taking place to add input and output layouts, reports and to accommodate additional data types which have been identified as needing tracking.

A summer student has been hired to create a website for the databank. The primary purpose of this website will be to provide information to scientists regarding data submissions and site survey requirements. This work is being coordinated with the database development to allow the database to be linked to the website when it is completed.

### **2.5 TAMU (Klaus)**

**Navigation:** dGPS (Omnistar) contract extended to cover Leg 174A New Jersey shelf sites. Purchased a single Ashtec GG24 GPS/Glonass receiver which is onboard Joides and if possible will be deployed mid-Leg 174A or at NY portcall to allow comparison to dGPS before we are depart dGPS service area.

**Seismic:** No additional GI-gun and streamer tests since last meeting. No new seismic data collected since Leg 172 (none collected during Leg 173). Leg 172 seismic data was brought to the meeting to show GI vs water gun and single vs six channel streamer data. GI guns were used for Leg 174 VSP experiment, after which they will be sent back to vendor. Two recorders are now on ship for initial installation and testing. Control software (annotations, scale, triggering, etc)

statement of work finalized and submitted to contractor. Beta version received, tested, reviewed. Updated beta version for testing supplied to the ship prior to Leg 174a for testing.

**New Personnel:** Tom Davies (Manager of Science Services; formerly Institute for Geophysics, UT Austin); John Firth (Curator); Supervisor of Technical Support: Brad Julson has been named for this position.

**New Sample Policy:** Approved but not in force. More details on web site <http://www-odp.tamu.edu/curation>

## **2.6 JOIDES (Ellins)**

**SCICOM:** Ellins provided a brief update on the implementation of the New Joides Advisory Structure and the establishment of PPGs. She distributed brief descriptions of the six PPGs to the panel. SCICOM accepted SSP's April recommendations for an SSP representation on the Observatories PPG. Gail Christeson attended their first meeting. Consideration of SSP's second recommendation regarding the establishment of a PPG or DPG to address the site survey requirements for deep drilling with a riser vessel was deferred by SCICOM until August, following the CONCORD Meeting.

**New Proposal Submission Procedures:** They have been approved by EXCOM. Proposal submission will follow a two-step process, involving a **Preliminary Proposal** first, followed by and a **Full Proposal**, usually at the request of the SSEPs. As a general rule, SSP will review only those Full Proposals that have been selected for external evaluation by the SSEPs. There are also new site summary forms. The new category of Ancillary Program Letter has been introduced for the consideration of projects with scientific objectives that do not address key scientific goals of proposed drilling legs, but that require collection of shipboard data and measurements from drill holes or cores. Ancillary Program Letters will be passed to the SSEPs and other relevant panels/committees/subcontractors for evaluation or comment. The New Proposal Submissions Procedures were distributed. A map showing the possible ship's track for 1999 - 2003 was shown.

**Deep Drilling:** There are two aspects involved in a test of the deep drilling capabilities of the JOIDES Resolution: one is the depth of penetration; the other is the maximum length of the drillstring as a function of weather and sea characteristics. Since any attempt to test the JOIDES Resolution's capabilities must be driven by science, SCICOM identified some high priority science that requires deep drilling. In addition, the JOIDES Office has (1) prepared a background document outlining the issue and history of deep drilling in ODP using the JOIDES Resolution; (2) formulated an advertisement calling for the submission of proposals which include deep drilling targets; and (3) will contact all proponents of active proposals in the ODP system and ask them to specify at the earliest opportunity any "deep-hole" sites that they originally included or intended to include in proposals, but that were dropped for logistical reasons or in response to advice from the previous JOIDES Advisory Panels. Ellins distributed the table of all deep drilling targets and corresponding scientific objectives contained in the current group of ODP active proposals or scheduled Legs which had been prepared by the JOIDES Office.

**Prospectus:** A list of the proposals that SCICOM will consider at their August meeting was shown and those that would go into a Prospectus were identified. The Guide to the Ocean Drilling Program is under revision.

**Publication:** Ellins distributed the EXCOM Chair's (Bob Detrick), response to letters from the community protesting the EXCOM motion on Publications.

**ODP Review:** The National Academy of Science's Ocean Studies Board met in Woods Hole recently to review the status and future of scientific ocean drilling, including planning for the IODP. Presentations were made by Susan Humphris, Bob Detrick, Dave Falvey, and Mike Purdy.

**Discussion:** Some discussion took place concerning the review of proposals. Currently, the comments of external evaluators are not circulated to SSP. Some SSP members felt it would be desirable to view those comments dealing specifically with matters concerning site survey data. The matter should be raised with the SCICOM Chair.

Another issue raised concerned with SSEP's comments. The SSEP's reviews are sent to the Data Bank for inclusion in the watchdog books. SSP Chair Srivastava, said that he would like to receive copies of these as well so that he would be aware of them when discussing different proposals. Several proposals which fall outside the area of operations were reviewed by SSP at the July meeting. The panel expressed concern about the fate of such proposals which get passed to OPCOM since they may remain unscheduled for several years. Some panel members worried that they may not be properly review by SSP as watchdogs change with the 3 year rotation of panel members. Other members felt that the SSP Chair being overly concerned and suggested that such proposals could be handled on a case-by-case basis. Ellins suggested that such proposals could be tracked in a way that is similar to scheduled Legs.

**Action item # 3: Srivastava to raise the question of external evaluator's comments during OPCOM meeting.**

**2.6 ISSEP (Casey)**

See Appendix B

**2.7 ESSEP (Peterson)**

See Appendix C

**2.8 SciMP (Srivastava)**

Srivastava hosted SciMP first meeting in Dartmouth at Bedford Institute of Oceanography during the time of J/R portcall. The meeting was well attended by all panel members. Two items of interest to this panel were mentioned by Srivastava at the meeting; navigation on board J/R and underway seismic equipment. Both of these items were discussed. Money has been requested for the purchase of new GI guns in the budget while a Glonass GPS receiver has already been purchased for J/R. One of their members, John Woodside, was appointed as liaison to SSP. He was unable to attend our meeting at this time as it conflicted with his other schedule.

**2.9 PPG Long Term Observatory Report (Christeson)**

See Appendix D

Discussion took place concerning PPG comments on Site Survey requirement for proposals which fall under this category. The panel decided to consider requirement of such proposals on case by case basis rather than to make a general ruling. Subsequent to the meeting Srivastava had a private discussion with Keir Becker, the Chair for this PPG, on board *Joides Resolution* to find out more on their concerns about Site Survey requirements. Srivastava explained SSP concern about site survey requirements that if a hole in the deep ocean is drilled for housing an instrument package then as much details of that region should be found out as possible for its subsequent uses. Keir sympathised with the SSP philosophy and felt that some of the detailed imaging of the crust around the hole could be done even at a later date. Their PPG will take this into account when discussing site survey requirements. Keir will let SSP Chair know in advance about their next meeting in case a Japanese SSP member could attend their next meeting..

**3. SITE SURVEY IMPLICATIONS OF RECENTLY DRILLED LEGS (Klaus/Flood)**

*LEG172*: The Leg 172 Data Package was used throughout the leg primarily for planning seismic surveys, which were conducted over all sites drilled. Each seismic survey was designed to have crossing lines over the proposed sites and to intersect at least one existing seismic line. Typically, location maps created by the Databank were used to plan the surveys. These maps were crucial as they showed the existing seismic lines and were at a scale convenient for plotting seismic survey way points. Other maps, seismic lines, and 3.5 KHz data in the data package (except for those duplicated in the Scientific Prospectus) were used little.

As requested by SSP, PCOM and the DPG, crossing lines were run at all sites to image the sediment section prior to drilling. A total of 1.46 days were devoted to collecting single-channel seismic (SCS) data at 11 sites (8 surveys), including 10 original sites and one new site designated on the ship. Also, SSP had requested that a GI (generator-injector) gun be used as a seismic source on an upcoming leg to allow comparisons to be made with the water gun seismic source presently in use. A GI gun was borrowed from GSI by ODP for Leg 172 and used for the site surveys. Data was collected mostly using a water gun, with both streamers (single channel and 6 and 12-channel streamers), and at different ship speeds. The relative quality of the different data/streamer configurations are being evaluated.

Ten proposed sites were surveyed. Eight sites were drilled exactly as proposed. Minor adjustments were made to two sites on the basis of shipboard survey data to avoid an area eroded by a small debris flow (1056) and acoustical anomalies (blanking) in the uppermost sediment column possibly indicating localized gas hydrate accumulations (1060). Overall, the on-board high-resolution SCS capability proved extremely useful in demonstrating the stratigraphic continuity of these high-resolution paleoceanographic sites.

**SSP recommendation # 1 to SCICOM: SSP recommends to SCICOM the continuing availability of a high-resolution single or multiple channel seismic system on board *Joides Resolution* for its use where on-site data acquisition is required for a successful scientific program.**

*Explanatory note:*

The success with which sites could be selected by collecting additional high resolution seismic data on board *Joides Resolution* during Leg 152 has clearly demonstrated the desirability of having a good quality high resolution single or multiple channel seismic system on board *Joides Resolution* for on-site data acquisition.

**LEG 173:** Data package not used much during cruise due to co-chief (Whitmarsh) bringing everything needed for shipboard use. Some ship track maps showing seismic survey lines were used. Some discussion took place about the cable problem encountered during this Leg. It was mentioned that the problem arose not because TAMU neglected to find out the detailed location of the cables but more for political reasons. Perhaps this need to be discussed during OPCOM meeting for the forthcoming Legs.

#### **4. SITE SURVEY STATUS OF UPCOMING SCHEDULED LEGS FOR 97 & 98**

##### **4.1 Leg 176: Return to 735B (300)**

*SSP Watchdog* : Casey

*SSP proponent(s)* : none

*Target type* : G

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

**SSP Consensus # 1:** SSP reiterates that all the required data is now available in order to deepen Site 735B (Leg 176). However, SSP continues to request that the proponents submit a survey map derived from the JOIDES Resolution video tapes to show the distribution of sediments, slopes and potential alternate sites near Site 735B. The proponents indicated they would reconstruct the video track from the audio portions of the tape because the original JR track map cannot be located. This is important given the potential of selection of alternate sites if difficulties in deepening 735B are encountered (see PCOM MOTION 95-3-11). As the drilling on Leg 179 is now to take place near site 735B it is essential that such a video tape be assembled with the assistance from the co-Chief scientist of this leg.

##### **4.2 Leg 178: W. Antarctic Peninsula Margin: Glacial history and sea-level change. (452-Add3&502) - PPSP**

*SSP Watchdog*: Lykke-Andersen

*SSP Proponents*: None

*Target Type*: B (and A)

At our April 1997 meeting the site survey package was ranked 1A, but the SSP panel recommended that the new data from the Palmer Deep needs to be migrated in order to make an optimal imaging of the sedimentary sequence in the relatively narrow basin and thereby to facilitate the safety evaluation. Migrated data has not yet been received in the Data Bank. Although it is understood that the leg has been approved by the PPSP, it is recommended that a migrated version of the data is produced and submitted to the Data Bank. It is anticipated that this will substantially improve the data package for the Palmer Deep.

From communication between Peter Barker and Dan Quoidbach of May 13, 1997 it is understood that the site APSHE-13A has been replaced by a new site, based on the new site survey data. The proponents are requested to submit an updated Site Summary Form and an updated map with the location of the new site to the Data Bank, with copies to Joides Office. With these supplements the datapackage will be complete.

**SSP Consensus # 2:** The proponents/ co-chiefs are encouraged to supply migrated versions of the new Palmer Deep profiles to the Data Bank. They are also requested to submit updated Site Summary Forms and location map for the new Palmer Deep Site (APSHE-13B). With this submission the data package for Leg 178 will be complete.

##### **4.3 Leg 179: NERO - Ninety East Ridge Observatory & Hammer Drilling (508)**

*SSP Watchdog*: Christeson

*SSP Proponents:* None

*Target Type:* G

This leg will accomplish two objectives: 1) drilling a borehole into basement on the Ninetyeast Ridge for installation of a broadband ocean seismometer, and 2) test of the hammer drilling system near Site 735B. No new site survey data have been submitted for this proposal, and the site survey readiness status of this proposal remains 1A. Jack Casey, chief scientist of the leg, will submit to the data bank a reconstructed video survey map of the JOIDES Resolution video tape from Site 735B drilling with navigation for purposes of site selection for hammer drilling.

*Site survey readiness status:* 1A

**SSP Consensus # 3: Drilling during Leg 179 will accomplish two objectives: 1) drilling a borehole into basement on the Ninetyeast Ridge for installation of a broadband ocean seismometer, and 2) test of the hammer drilling system near Site 735B. Plans call for reoccupation of either ODP Site 756 or 757 on the Ninetyeast Ridge, and tests of the hammer drilling system near Site 735B. Jack Casey, chief scientist of the leg, will submit to the data bank a reconstructed video survey map of the JOIDES Resolution video tape from Site 735B drilling with navigation for purposes of site selection for hammer drilling. Since site survey data for these previously drilled sites are already on file with the ODP Data Bank, SSP considers the site survey readiness status to be 1A.**

**4.4 Leg 180: West Woodlark Basin (447-rev3)**

*SSP Watchdog:* Enachescu

*SSP Proponent:* none

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

The ODP proposal 447-rev3 was re-assessed during the spring meeting in Tokyo. At that meeting, all the concerns related to drilling detachment planes, expressed by several panels were addressed. The proposal is considered ready to drill and scheduled as leg 180. All required geoscience site data are at the Data Bank in final form, including a depth migration variant of the seismic line with site locations. Drilling locations have been validated by the SSP and approved by the Safety Panel. Site survey classification 1A.

**SSP Consensus # 4: SSP acknowledges that a complete data package for the Woodlark Basin Leg 180 exists in the Data Bank. All four sites are well-documented. The leg is ready for drilling.**

**4.5 Leg 181: SW Pacific Gateway (441, ADD-2)**

*SSP Watchdog:* Peterson

*SSP Proponents:* None

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

Newly submitted data from the February 1997 R/V *Tangaroa* site survey cruise were examined at this meeting. Results of this survey have led to fine-tuning and slight shifting of site locations for primary sites SWPAC-2A, -5A, -6B, -7B and -8B. Site SWPAC-1C has also been repositioned based on new data from a 1996 R/V *Ewing* cruise to the region. In general, the new data from both the *Ewing* and *Tangaroa* surveys are sufficient to satisfy basic SSP requirements for data type and quality. The proposed location of Site SWPAC-9A remains the same as before and is based on earlier submitted data from NZOI cruise 2050 aboard the R/V *Rapuhia*.

Although the new data package is essentially complete from an SSP perspective, many of the records are poorly annotated and it is difficult to precisely locate some of the sites with the navigation information provided. Navigation maps are large and do a good job of showing the extent of regional seismic coverage, but blow-ups of track lines in the immediate vicinity of the sites would be much easier to read. The quality of MCS lines is generally good, with site locations clearly indicated. However, target depths are not indicated on the profiles and the basis for selecting penetrations as specific as 664 m (SWPAC-6B) is usually not obvious. The quality of 3.5 kHz profiles from the *Tangaroa* cruise is often poor, but the availability of sediment cores at or near all site locations helps offset this deficiency. For Site SWPAC-2A, the MCS line on which it is said to be located (Line 2) can't be matched to the existing navigation map. The site actually appears to be located at the intersection of Lines 7 and 8 (based on matching date-time information on 3.5 kHz profiles to the navigation),

with Line 2 apparently off the navigation map. For Site SWPAC-8A, SSP would like to also see the portion of the *Tangaroa* line that crosses -8A at about 1600, 17 February. Site SWPAC-9A is based on a single SCS line (R/V *Rapuhia*) without a crossing. SSP expressed some slight concern over how well this line may have been navigated, and also recommends shifting the site to a location away from the very top of the topographic high shown in the profile.

This program will undergo its formal safety review by PPSP at their early December 1997 meeting. Prior to that time, co-chief/proponents will need to re-submit properly annotated sections of lines passing through proposed site locations. Profiles should be at a large working scale, consistent with navigation, and with horizontal and vertical scales clearly marked. Target depths on the profiles need to be indicated, and the rationale for selecting the proposed target depths should be better developed. Stratigraphic tie-ins to local DSDP sites or industry wells will need to be explained at the PPSP review, along with the basis for assumed velocity models. The industry logs at the wells should be examined to locate lithological units to ensure that no large sand units will be encountered at the near by proposed site.

SSP considers the site survey readiness of this scheduled leg to now be "1B" based on submission of the new survey package, but pending submission of more clearly annotated records. We wish the co-chief/proponents luck in finalizing their data package.

**SSP Consensus # 5:** New survey data for six of seven primary SW Pacific Gateway (Leg 181) sites have been submitted to the ODP Data Bank since our Tokyo meeting. Essentially all data required in support of drilling are now on file, though many of the profiles are poorly annotated. There appears to be navigation inconsistencies for the MCS line submitted in support of Site SWPAC-2A, while additional data from the survey line that crosses Site SWPAC-8B is requested. Prior to formal safety review of this leg by PPSP, the submission of more clearly annotated profiles is required along with a more explicit rationale for the selection of target depths based on regional stratigraphic correlations.

#### **4.6 Leg 182: Great Australian Bight (367- rev3)**

*SSP Watchdog:* Enachescu

*SSP Proponent:* none

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

A comprehensive set of data exists for this proposal that after the Tokyo meeting was scheduled as Leg 182. The locations are fully validated by the SSP and the Safety Panel. The proponents have set the highest standard for documenting ODP proposals and carrying out the site survey geoscience.

**SSP Consensus # 6:** SSP acknowledges that a complete data package for the Australia Bight Carbonate 367 Leg 182 exists in the Data Bank. All the sites are well-documented and approved by SSP and SP. The leg is ready for drilling.

#### **4.7 Leg 183, Kerguelen Plateau and Broken Ridge: origin, growth and evolution (457-rev 4)**

*SSP Watchdog:* Permanent: Tokuyama, Acting: Saito

*SSP Proponent:* None

*Target Type:* G (Topographically elevated features)

At our April 1997 meeting, SSP recommended to the proponents to submit 1) brute stack profiles of all data obtained on RS 179 and 180 cruises and 2) a track chart from this survey.

Cruise RS179 was conducted from January to February 1997 and the profiles intersecting the previous seismic lines were obtained at sites KIP-6B and KIP-7A. SSP received brute stack as well as processed migrated profiles from this cruise at these sites. The submitted package is well processed but locations of the proposed sites are not presented adequately. During RS180 cruise from March to April 1997 a seismic line intersecting the previous seismic lines was obtained at the proposed site KIP-13A (replacement of 12A). SSP received shipboard stack profile of this site but has not received the information on the track lines of the survey.

Considering the high quality of migrated data submitted to the data bank there is every expectation that the remainder of the data from the second cruise, RS180, will be of equally high quality. The data from sites KIP 6B and 7A seem adequate to address the drilling targets. However, the panel would like to see sites duly plotted on the processed lines together with the drilling depths. Also a track map of shot points for the new lines together with details of the intersecting lines be provided to the Data Bank.

Another survey for sites KIP3A & 2B/9A will be performed by French vessel (IFREMER project) in summer season of next year. SSP requires proponents to submit 1) the well processed migrated profiles intersecting the previous seismic lines obtained by this cruise before July 1998 to the DB so that these could be viewed by the SSP at their July 98 meeting and 2) the reprocessed SCS profile for site KIP 9A, which is still not submitted to the DB, must be submitted before SSP Feb 98 meeting. The proponents must realise that good quality data at each of these sites are needed by SSP and PPSP for their approval.

**SSP Consensus # 7: SSP acknowledges receiving high quality MCS processed data from two of the sites (KIP6B and KIP7A) of Leg 183 (Kerguelen Plateau). It recommends that the proponents/co-chiefs of this leg should submit 1) migrated data from site KIP 13A together with a detailed track map and 2) the reprocessed SCS profile from site KIP 9A before February 1998 data deadline to the DB, for the SSP approval during their Feb 98 meeting. Any additional data to be collected during a French cruise in Jan-Feb 98 at sites KIP3A & 2B/9A must be processed and deposited with the DB before July 98 deadline in order to get SSP and PPSP approvals. Site Survey status for his Leg remains 2B.**

## **5. POTENTIAL FUTURE DRILLING: SSEP (Earth Int.)**

### **5.1 Australia-Antarctica Discordance (426)**

*SSP Watchdog* : Sibuet

*SSP Proponent*: None

*Target Type* : E (Open Ocean crust with sediments < 400m)

The intent of this proposal is to locate and to characterise the boundary between sea-floor basalts that were derived from the mantle of the Pacific ocean and those belonging to the Indian ocean.

During our July 96 meeting we had examined the site survey data collected in support of this proposal onboard R/V Melville in February 96. Unfortunately the quality of seismic and 3.5 kHz data was so poor that we were not able to evaluate the sediment thickness at all of the sites. Consequently, the proponents submitted part of the reprocessed data from the same cruise documenting some of the proposed sites. Despite the poor quality of Melville data, sites 1, 13, 14 and 16 were approved during the November SSP meeting as drillable sites on the basis of this data. As sufficient number of drillable sites did not exist SSP recommended to proponents to run an additional survey to identify where pockets of at least 50 m of sediments exist in order for the drill bit to spud in.

Another cruise on board Melville was conducted in February-March 1997. During this cruise a GI gun was operated with a 6-channel streamer. All data from this as well as from the previous cruise were processed (stack and migration). The quality of seismic data from the last cruise is much better. The proponents have demonstrated the improvement in the quality of the data which can be obtained with a GI source and an appropriate 6-channel streamer. However, once again, the 3.5 kHz was not operational and no data were collected during the two Melville cruises. This is not critical as the seismic data are of sufficient quality to define the drilling targets.

Proponents have submitted a completely new data package that SSP has examined. They have done a good job in preparing a consistent set of existing data for possible 27 sites. Most of the proposed sites have no cross lines but these cross lines can be acquired during the JR approach, if necessary.

Out of these, 19 sites were approved, including those approved previously. Eight sites are not approved because they either have poor quality of existing data (e.g. 1996 Melville cruise) or lack evidence to tell if sediment pockets exist or not.

The 19 approved sites are:

**1b, 2b, 3b, 4c, 8c, 13b, 14c, 16, 20, 21, 23, 27, 28, 29, 33, 34, 35, 36 and 37.**

The 8 rejected sites are:

**5c, 22, 24, 25, 26, 30, 31 and 32.**

The chief proponents was contacted during the meeting to find out his drilling strategy with the approved number of sites, to ensure that the drilling objectives can be met. He responded by outlining to the panel how the drilling objectives can be met in such a case. According to him, if 10 to 12 sites, out of the approved 19 sites, can be drilled during a single leg, the objectives of the leg can easily be met. Further, if onboard geochemical analyses are successful, the distribution of approved sites will be adequate to further constrain the drilling strategy in order to better define the position of this boundary. On this basis, SSP rated the proposal as 1A for the 19 approved sites (All vital data are in the DB for these sites). Other proposed sites are rejected for drilling.

**SSP Consensus # 8:** Based on the newly collected data for proposal 426 (Aus.-Antrac. discordance) 19 sites can be identified with adequate thickness of sediments to drill. It is the considered opinion of the main proponent that with these approved sites the drilling objectives for this proposal now can be achieved. In SSP opinion most of the required data for this proposal now exist and, hence, this proposal is rated as 1A. Additional data will need to be collected by J/R if it becomes a scheduled leg to ensure the horizontal extent of the sediment pockets at the drilling sites.

### **5.2 Western Pacific Seismic Network (431)**

*SSP Watchdog:* Christeson

*SSP Proponents:* None

*Target Types:* E (Open Ocean Crust with sediments <400 m)

This proposal seeks to drill four sites into basement in the western Pacific in order to install broadband ocean seismometers. The two Japan Trench sites will involve boreholes drilled directly above the subducting plate interface, instrumented with both a broadband seismometer and strain meters. The stations will provide new constraints on strain episodes and slow earthquakes in Japan Trench. The two Western Pacific sites will be instrumented with broadband seismometers as part of the Ocean Seismic Network. New site survey data in support of all sites was deposited in the data bank prior to the meeting.

Japan Trench sites:

Good quality migrated MCS data is now available. A track line showing the older JT90 line in relation to the sites and the newer seismic profiles has still not been deposited in the data bank. Refraction data has been collected, but has yet to be interpreted. The Site Survey Panel expressed concern about the estimates of sediment thickness at these sites - if it is critical for the scientific objectives to reach basement accurate velocity information is essential. When the refraction data is interpreted could the proponents map sediment thickness along the seismic profiles? Could alternate sites along the seismic profiles positioned where sediment thickness is less and drilling times shortened, be proposed? The panel does not require that the sites be positioned exactly at the intersection of crossing lines.

WP1:

Good quality migrated MCS data is now available. The only panel concern on this site was again velocity control - due to the water depth velocity analysis of the MCS data is inadequate to constrain sediment thickness. Could the proponents supply any sonobuoy or OBS data from the region for this purpose?

WP2:

Migrated MCS profiles for this site were supplied. These lines show reverberation, and it is not clear that the basement is properly imaged. Due to the water depth velocity analysis of the MCS data is inadequate to constrain sediment thickness. Could the proponents supply any sonobuoy or OBS data from the region for this purpose? A survey ship track with shot points annotated needs to be submitted to the data bank.

*Site survey readiness status:* 2A

**SSP Consensus # 9:** Data in support of all four western Pacific seismic network (proposal 431) sites now exist and have been submitted to the data bank. At present, no velocity control exists for the four sites, although OBS data was collected at the JT sites and still remains to be modelled. The Site Survey Panel expressed concern about the estimates of sediment thickness at the Japan Trench sites - if it is critical for the scientific objectives to reach basement, accurate velocity information is essential. All sites are classified as 2A in terms of present site survey readiness.

### **5.3 Nankai Trough Accretionary Prism: Deformation and fluid flow (445)**

*SSP Watchdog:* Paull

*SSP Proponent(s):* Tokuyama

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



**SSP Consensus # 10: No additional data has been received for proposal 445 (Nankai Trough) since the last meeting. Detailed navigation plots that merge the major data types are still missing. It is requested that Japanese proponents of this proposal should make every effort of depositing this data in the data bank as soon as possible. The proposal readiness from site survey point of view still remains as 1B (some essential data not in the DB but believed to exist).**

**5.4 Ontong Java Plateau Origin (448-Rev3)**

*SSP Watchdog:* Permanent: Tokuyama; Acting: Jones ( July 1997)

*SSP Proponents(s):* None

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

Originally submitted in January 1994, this proposal argues the case for two legs of basement drilling on the Ontong Java Plateau to establish the age and duration of igneous activity, the range and diversity of magmatism, the environment of eruption, the post-emplacement tectonic history, the effects of rift-related tectonism and the paleogeography of the plateau.

Planned basement penetrations range from 150m to 1000m (*150m:* OJ6, OJ7A, OJ7B, OJ8, OJ9A and OJ12A. *300m:* OJ1A, OJ3 and OJ10A. *350m:* OJ1B and OJ11A. *1000m* OJ2).

The proposal was last reviewed by SSP in April 1997.

The present data lacks multichannel seismic to show detailed basement topography and the structure of basement sections to be penetrated by the drill. There is also no detailed information on the velocity structure of the upper basement. The proposal must therefore be regarded as immature from site survey readiness.

A Japanese cruise is planned for this region for Jan - Feb 98. It is, therefore, important for the proponents to get in touch with the Japanese organisation to ensure that the required data will be collected at the proposed sites during this cruise.

*Site Survey Readiness Classification:* 3A : (Required data are not in the data bank, but are likely to be available in time for consideration for FY 2000 drilling if a scheduled site survey proceeds)

**SSP Consensus # 11: That Dr Kroenke and other proponents of proposal 448 (Ontong Java) (a) enquire whether MCS data can be acquired over each site during an ORI cruise of Hakuho Maru in the area during January-March 1998 and (b) to keep the SSP informed about any further development in the status of the site survey data. SSP ranking remains 3A (unlikely for 1999, site survey planned)**

**5.5 Taiwan arc-continent collision (450) PPSP**

*SSP Watchdog:* Sibuet

*SSP Proponent(s):* None

*Target Type(s):* C: Active margin for sites 1-5,7 and D: Open Ocean Crust with sediments >400m for site 6.

During the November 1996 meeting, this proposal was rated 1A (which means that all required data is now in the DB and the proposal can be considered for drilling). However, we suggested PPSP to pre-review two sites where a BSR would be drilled (sites TC2A and TC7A). The BSR is obvious on Ewing line 29 and Moana Wave line 30 which are coincident EW oriented lines. All along these profiles, the BSR is a faint and discontinuous feature. At both sites it is proposed to be drilled.

A PPSP pre-review of this proposal would be required if it becomes a leg. For that, it would be necessary to provide true amplitude plots of the seismics. If the proposal is accepted during the next OPCOM meeting (August 97), the PPSP pre-review will take place during the December PPSP meeting. In that case, the Joides Office will directly contact the main proponent after the OPCOM scheduled meeting.

**SSP Consensus # 12: All vital data for proposal 450 (Taiwan arc-continent collision) has been deposited in the DB. The proposal was rated 1A during the November 1996 SSP meeting, which means that it is ready for its consideration as a drilling leg. However, a PPSP pre-review would be required for sites TC2A and TC7A where the BSR would be drilled. A true amplitude plot of Ewing line 29 or Moana Wave line 30 would be required for the PPSP pre-review. The proposal still remains as 1A from site survey readiness.**

### **5.6 Tonga Forearc: Geodynamics, arc evolution and deformation (451-Add2)**

*SSP Watchdog:* John Diebold

*SSP Proponent:* none

*Target Type:* C (Active Margins)

This proposal was rated 1A; ready for drilling at the April 1997 SSP meeting in Tokyo. Since then, neither modifications to the proposal nor additional data have been submitted. We note that the early 1997 ISSEP review of this proposal favoured its geochemical goals over its tectonic ones, and suggested modification to the proposal. SSP will monitor any future modifications.

*Site Survey Readiness Classification:* 1A

**SSP Consensus # 13: All required data for the Tonga Forearc proposal (451) now resides in the Data Bank. This proposal, from an SSP perspective, is ready to be considered for drilling. However, ISSEP has suggested a revision of the proposal.**

### **5.7 Plume impact at Shatsky Rise (463-add 3)**

*SSP Watchdog:* Hinz

*SSP Proponents:* none

*Target Type:* G (Topographically elevated region) and E( open ocean crust with sed. < 400m)

An eight-basement hole transect over the four main volcanic edifices comprising the Shatsky Rise is proposed. Objectives include testing a plume origin for the volcanics, dating them and determining plume dynamics. The proposed eight primary holes include two mini-core re-entry holes (SRSR-2 and SRNH-1) and two references holes (SRSR-1 and SRSR-7).

All data acquired during cruise TN033 of *R/V THOMPSON* in 1994 have been submitted to the Data Bank, including migrated 6-channel seismic reflection lines, detailed Hydrosweep bathymetric maps and Xerox copies of the 3.5 kHz PDR data from all eight primary sites and from all 23 alternate sites. No deep penetration MCS data has been supplied at the deep penetration sites.

There is some concern regarding the determination of volcanic basement of the Southern High at e.g., sites SRSR-2, -2B, -2C, -3, -3B. The interpreted surface of the volcanic edifice forms the top of an about 0.15-0.2 (tw) thick sequence characterized by a high-frequency coherent internal reflection pattern at those sites. If this distinct sequence represents instead a depositional sequence including volcanoclastic rocks, which cannot be excluded with the data in hand, the drilling plan has to be modified in order to reach the targets.

*Site Survey Readiness Classification:* 1B

**SSP Consensus # 14: 3.5 kHz PDR data, migrated, 6-channel seismic reflection data and detailed Hydrosweep bathymetric maps for all proposed sites for proposal 463 (Shatsky Rise) are in the DB. Although the migrated seismic reflection data are considered to be adequate to identify the basement there remains some concern regarding the interpreted surface of the volcanic edifice at sites SRSR-2, -2B, -2C, -3, -3B. If the top of the distinct 0.15-0.2 (tw) thick sequence, interpreted by the proponents as basalt, is a depositional unit, the primary holes SRSR-2 and SHSH-3 have to be deepened in order to reach the targets or to be moved unless the proponents provide plausible arguments that exclude a depositional nature of this distinct sequence. With this modification the data set will be complete, though deep penetration MCS data would greatly enhance the interpretation of the results of deep drilling. Short surveys by the drill ship would be desirable, to provide cross lines at those sites which lack them.**

### **5.8 Mass Balance: Izu Mariana (472)**

*SSP Watchdog:* Diebold

*SSP Proponent:* None

*Target type:* D (open ocean crust with sediment more than 400 m).

The data package for this proposal has been complete for some time, and no changes in site locations have been made. One new item of swath bathymetry data, desirable, but not required, has been submitted for site BON-8.

*Site Survey Readiness Classification:* 1A.

**SSP Consensus # 15: A good data package has been assembled for Izu-Mariana Convergent Margin proposal (472). The package was judged to be complete and the proposal ready for drilling. If any palaeoceanography objectives are intended, a good quality SCS profile through the BON site must be collected by the JOIDES Resolution.**

#### **5.9 ION Equatorial (499)**

*SSP Watchdog:* Christeson

*SSP Proponents:* None

*Target Type:* E (Open ocean crust with sediments <400m)

This proposal, which targets objectives of the ION and OSN programs, proposes that a cased, cemented hole be drilled and fitted with a re-entry cone in the equatorial western Pacific; a broadband seismometer will be installed in the borehole using wireline re-entry and does not require installation by the drilling ship. The site will fill in a major gap in coverage between Central America and the Pacific Islands which exists with the current seismic network. The proposed site is near ODP site 852 which was drilled on Leg 138. Single channel seismic data in support of Leg 138 exist in the databank.

Discussions on site survey requirements for ION holes were made at the first meeting of the Long-Term Observatory PPG. Their consensus was that information on water depth and depth to basement was needed for ION sites on simple oceanic crust where no other observatory components were planned, and that crossing single-channel seismic lines should be sufficient. Detailed local structure is not a significant concern for global seismological purposes because of the scale involved (frequencies 1 MHz to 4 Hz, wavelengths 2.5 km to 4000 km). On the basis of these discussions and discussions within the panel, SSP has decided to relax the previously stated site survey requirements at this site at this time. Should the proposed holes be used at a later time for some regional studies, additional data would need to be collected in the region as stated previously. SSP now requires: 1) new displays at an appropriate scale of the existing SCS profiles with site location and penetration marked, and 2) map of satellite gravity and magnetics for the region to insure that sites are free of major structure and outside of any regional anomalies.

*Site survey readiness status:* 2A (Substantial items of required data not in the data bank but are believed to exist and are likely to be available in time for consideration for FY 99 drilling).

**SSP Consensus # 16: Proposal 499 (ION equatorial) calls for drilling a hole near ODP site 852 for seismometer installation in support of the ION and OSN programs. Based on recent discussions by the Long-Term Observatory PPG, the wavelengths and frequencies important to the scientific objectives of this proposal, and discussions within the Site Survey Panel, the SSP has decided to relax their previously stated site survey requirements. SSP now requires: 1) new displays at an appropriate scale of the existing SCS profiles with site location and penetration marked, and 2) map of satellite gravity and magnetics for the region to insure that sites are free of major structure and outside of any regional anomalies. This site is classified as 2A in terms of site survey readiness.**

## **6. POTENTIAL FUTURE DRILLING: SSEP (Earth Env.)**

### **5.1 Peruvian Margin Gas Hydrate (355-Rev)**

*SSP Watchdog:* Diebold

*SSP Proponent:* None

*Target Type:* C (Active margin)

The proposal is classified as Type C Drilling Environment (Active Margin). Proponents base the site survey package on the data already submitted to the Data Base for drilling ODP Leg 112. In addition, two newer, higher quality MCS lines have been submitted. All of the proposed sites are located along these two subparallel lines. The ODP leg 112 data are available in the data bank, but the grid formed by them and the new lines is too loose to allow a 3-D characterization of the BSR which is the target of three proposed sites.

Considering that the proposal's objectives on fluid circulation and gas hydrates have been given higher priority by the SSEPs than have the tectonic objectives, the panel's previous recommendations for a better grid of seismic lines, for 3.5 KHz and for additional heat flow data are still important. Heat flow interpretations that have been submitted to the DB are based on BSR depth with respect to the seafloor, and are thus uninformative. While the BSR is clearly seen on the MCS data in the DB, its true surficial shape and 3D amplitude response (important for safety considerations at site P5) and lateral extent (crucial to predict migration pathways at site P6) cannot be defined with confidence from the available data.

External and SSEP reviews of proposal 355 indicate great interest in ODP sampling of BSRs. In view of drilling of BSR at many of the sites in the past the panel feels that gas hydrate research and sampling would be an appropriate topic for a new PPG.

*Site Survey Readiness Classification: 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 drilling if a proposed German cruise proceed as planned).

**SSP Consensus # 17:** The existing data set supporting ODP leg 112 is present in the data bank, and partially fulfills the requirement for proposal 355, Peru Margin Gas Hydrates. Additional high quality MCS data, along which the proposed sites are located, have been submitted to the data bank, but it is not certain whether these lines allow the proper siting of the proposed holes in relation to the gas hydrate horizon [BSR] as they cross obliquely. Large scale navigation plots locating each site within the grid of existing seismic lines should be made and submitted to the DB, as should 3.5 data, if available. The SSP feels that the scientific objectives of the BSR drilling can't be confidently achieved without the acquisition of additional MCS lines which will allow a better 3D characterization of the BSR around sites P4, P5, and P6.

**SSP recommends to SCICOM that consideration be given to setting up a PPG on Gas Hydrates to address the outstanding issues which have arisen from drilling into the gas hydrates and to design new strategies for drilling through them.**

Explanatory note:

There has been much recent interest in the role of gas hydrates in the ocean as a source of methane gas and a mechanism for climate feedback. Advances in our knowledge about gas hydrates have been made through ODP studies in active (Chile, Cascadia, Costa Rica) and passive (Blake Outer Ridge) margin settings. The results of these ODP studies raise important questions regarding the level of sophistication of future studies and experiments (geophysical and geochemical) designed to tackle gas hydrate objectives, and the associated logging and downhole sampling programs. Specific questions include: (1) what kinds of scientific programs need to be proposed to advance our understanding of gas in sediments, including hydrates, bottom-simulating reflectors, and their lateral and temporal variability? There are links to the deep biosphere because much of the shallow gas in sediments appears to have a microbial origin. Also, gas hydrate formation may be strongly linked to fluid flow within the margin. (2) What kinds of advances in sampling and down-hole measurement strategies are appropriate? (3) What types of pre-drilling data are appropriate for future sediment gas (including hydrate) studies. In particular, how should imaging techniques be used to help define drilling studies or targets, and are there new and/or advanced methodologies that should be encouraged? These kinds of discussions go beyond the SSP mandate (although SSP does need to comment on whether site data is adequate for drilling designed to meet specific objectives), but appear to be appropriate for a PPG.

**6.2 Laurentide Ice Sheets outlets (LISO, 455-rev)**

*SSP watchdog:* Lykke-Andersen

*SSP Proponents:* None

*Target Type: A (Paleoenvironment) and B (Passive Margin)*

The Site Survey Panel acknowledges the proponents efforts to supplement the data package in the Data Bank and to clarify some of the points raised during the previous meeting. At the last meeting all sites were classified as Target A (Paleoenvironment or Fan). At that time Site HUD04A was not included in the proposal. With the addition of this site the panel decided to classify this site, with intended TD of 800 m, as Target B (Passive Margin). In terms of site survey data requirements the panel found that the full requirements as described in the guidelines for Target Type B is not needed for site HUD04A, but the proponents are asked to provide the nearest multichannel profile, and crossing single channel high-resolution profiles for the site.

SSP reiterates the concern about the basement depth at site LAW01A (Saguenay Fjord). The intended TD is 650 m, but this apparently exceeds the total penetration on the available seismic profiles. On some of the available profiles, especially on one of those enclosed in the Site Summary Form for site LAW01A, diffuse reflection patterns appear in the lower parts of the profiles. It is not clear to the panel whether these patterns represent basement reflections or reflections from steep sides of the fjord. The proponents are encouraged to provide reliable estimates of the sediment thickness at the site. To this end velocity information is also needed.

In the shallow part of the single channel profiles through site LAW01A abrupt changes in reflection amplitudes were noticed. The proponents interpretation of this phenomenon would be much appreciated by the panel.

Descriptions of cores located at or near the majority of the proposed sites are now in the Data Bank. Sites from which no core descriptions have been provided are: HUD07A, HUD08A and LAW06A. The two last mentioned are located at DSDP Sites 111 and 382.

SSP reiterates that required 3.5 kHz data are still missing for some of the sites (HUD01A - HUD04A, HUD08A, LAW01A, LAW02A, LAW02B, LAW04A). For the sites LAW01A, LAW02A and B deep tow Hunttec profiles have been provided to the Data Bank. These data are of high quality and can replace the required 3.5 kHz data. The 3.5 kHz profiles provided for sites HUD08A and LAW 06A are strongly reduced photocopies of profiles at DSDP Sites 111 and 382.

High resolution single channel data have been provided for the majority of sites. Sites without required SCS-data are: HUD04A, HUD08A, LAW02B and LAW06A.

SSP acknowledge the good quality of the SCS-data that have been submitted to the Data Bank, but it is noted that TWT-scales are not annotated on several profiles.

The proponents are requested to submit working scale track maps with site locations and core locations to the Data Bank.

*Site Survey Readiness Classification: 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 99 drilling schedule)*

**SSP Consensus # 18: Good quality data have been submitted to the Data Bank for proposal 455 (Laurentide Ice Sheet Outlets). The panel look forward to receive the proponents evaluation of the problematic features noted at the site LAW01A. The proponents are encouraged to submit working scale track maps with core sites and proposed sites indicated. Many of the records are not annotated with vertical scales making it difficult to see the drilling targets. The proponents MUST supply this information at least at the proposed sites. The proponents are also encouraged to provide the still missing 3.5 kHz data, SCS data and velocity data at the sites as noted.**

### **6.3 SE Pacific Paleoceanography (465)**

*SSP Watchdog: Peterson*

*SSP Proponent: None*

*Target Type: All sites A (Paleoenvironment)*

An extremely well-packaged data set resulting from the proponents' February-April 1997 site survey cruise aboard the R/V *Roger Revelle* was examined at this meeting. For each of 31 sites in this new data submission, data on bathymetry and surface sediment lithology are presented together with well-navigated analog

and processed high-resolution SCS data. Although time precluded detailed examination of the data on a site by site basis, it was clear to SSP that sufficient data are available for each site to permit eventual selection of a subset of primary sites for either a one leg or two leg drilling scenario. Sites on the Cocos Rise and Carnegie Ridge supported by previous data submissions are also considered by the proponents to remain on the list of active sites.

On the basis of the recent survey results, SSP upgrades the site survey readiness ranking of this program to "1B". For target type A, 3.5 kHz profiles are required for all sites. These data were not included in the initial data package and should be submitted to the ODP Data Bank by the proponents when convenient. Once a subset of sites is picked as primary drilling targets, SSP will begin to look in more detail at site-specific characteristics. For those sites, larger working copies of processed SCS profiles will eventually be required, with clear annotation of horizontal and vertical scales and with the proposed target depths indicated.

SSP congratulates the proponents on their rapid assembly of a model data set and looks forward to seeing this exciting drilling program continue to take shape.

*Site survey readiness status:* 1B

**SSP Consensus # 19: Proponents of the SE Pacific Paleooceanography program (465) have submitted an exceptionally well documented data package resulting from their recent site survey cruise aboard R/V *Roger Revelle*. Based on this submission, SSP has upgraded the site survey readiness status of this program to 1B, with 3.5 kHz profiles the only data item not yet submitted to the ODP Data Bank. We look forward to seeing the continued evolution of this exciting proposal and to reviewing in more detail at future meetings the subset of sites selected as primary drilling targets.**

#### **6.4 Wilkes Land Margin: Cenozoic Glacial History (482).**

*SSP Watchdog:* Flood

*SSP Proponent(s):* none

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

Additional information was submitted to the Data Bank in support of proposed sites. Two of the MCS lines were for sites WLRIS01A and WLRIS02A, and core descriptions near these and other sites were also provided. Other MCS lines were also provided, and some names of new alternate sites were designated in a letter to the Data Bank, but these sites could not be evaluated since no positions were provided or marked on the seismic profiles. A revised proposal is expected for the September, 1997, deadline. The proponents also suggest additional MCS data will be collected in the 1998/1999 field season on an Italian ship.

SSP has several suggestions for the proponents as they consider the data necessary to support a revised proposal:

- (1) We encourage that entire seismic lines, not just portions of lines, be submitted to the Data Bank because continuous lines are needed to demonstrate the continuity of important seismic horizons from the shelf, where they primarily represent unconformities, to the rise, where the sequence is more continuous. The continuity of seismic reflections cannot be established on portions of seismic lines that do not intersect.
- (2) A more complete three-dimensional interpretation of the sedimentary structures should be provided. The proposal generally interprets the structure in two dimensions; however, the three dimensionality of sub bottom structures should be assessed as drilling plans evolve. For example, new seismic data at WLRIS01A demonstrate that the site appears to be located on the levee of a meandering channel. Similar structural complexities may exist on the shelf. Additional MCS data may exist in the area, and be contained on a CD in the ODP Data Bank (Geology and Geophysics of Offshore Wilkes Land, Vol 5A) that should be identified and integrated into the drilling program.
- (3) The linkages between the proposal and the scheduled MCS cruise by the Observatorio Geofisico Sperimentale of Trieste need to be more clearly established either through copies of correspondence or through inclusion of new proponents. This is particularly important to ensure that appropriate data are collected for the proposed Type B target sites. For example, the shelf

sites presently proposed are not near crossing lines, and they will not be approved if crossing lines are not available.

(4) Alternate sites need to be available that will allow scientific objectives to be met if ice cover prevents the primary sites from being occupied.

*Site Survey Readiness Classification:* The proposal is rated 3A on the prospect of appropriate data becoming available from an upcoming cruise.

**SSP Consensus # 20:** Additional data were provided to the Data Bank for proposal 482 (Wilkes Land), but no sites are marked on profiles and no positions are provided for newly named sites. A revised proposal is expected by September 15, and additional data needs to be submitted (suitable for Type B objectives) when requested by the Data Bank or JOIDES Office. The proponents should submit profiles that allow assessment of the lateral continuity of key seismic horizons, and the three-dimensionality of structures to be sampled should be determined. Clearer links between this proposal and an upcoming cruise by the Observatorio Geofisico Sperimentale of Trieste need to be demonstrated. Alternate sites for bad ice conditions also need to be prepared. The proposal is rated 3A.

#### **6.5 East Asian Monsoon History (484-rev)**

*SSP Watchdog:* Acting: Paull; Permanent: Peterson

*SSP Proponents:* None

*Target Types:* All sites as Type B (Passive Margin)

While the panel found the scientific objectives to be very interesting, there are serious problems with the data package supplied to the data Bank. Passive margin sites require crossing seismic lines which do not exist for sites SCS-2, SCS-4, SCS-6, and SCS-7. Unfortunately, these sites cannot be approved without them. The location of some sites (e.g., SCS-5, SCS-7) are on clear structural highs and thus present increased safety concerns. These sites will have to be moved off structure. However, the panel felt that an adequate data package might be assembled which would address the objectives of the proposal if new sites were selected based on all the existing data. For this the proponents must contact agencies like BGR, LDEO who have collected substantial data in this region. Much more multichannel seismic data is believed to exist in the South China Sea than is shown in the proposal. Thus, SSP suggest that new sites be located that will satisfy the survey and safety needs.

Safety considerations were voiced earlier about drilling in this area. Some of these issues might be addressed by providing detailed information about the commercial wells that exist in the region. However, when an adequate data package is assembled and is provided to the SSP, these issues can be better addressed. This proposal already has been flagged for an early pre-view by the Pollution Prevention and Safety Panel (PPSP) should this proposal becomes a drilling Leg. This will require the proponents to assemble all required hydrocarbon information of this region as early as possible and provide it to the Data bank.

While the copies of the seismic lines that were provided indicate that most of the lines are probably of adequate quality, the displays are not. Many of the displays are too small and lack adequate annotation to confidently relate them to the navigation. Thus, better copies need to be provided. The parasound data that is provided can be accepted instead of the 3.5 kHz data. However, the navigation for these lines is inadequate to indicate the location of the sites with respect to the holes. Thus, more detailed navigation is needed. If seabeam data, side-scan sonar data, and heat flow are available, they would be appreciated. Some indication of water currents is highly encouraged.

The proposal is still rated 3B, based of the panels opinion that an acceptable package can be assembled from the existing data and by adjusting the position of the Sites.

**SSP Consensus # 21 :** There are serious problems with the data package supplied to the Data Bank for proposal 484 (South China Sea). Many of the sites lack cross lines especially sites located over structural highs. A large amount of data seem to exist in the region and this need to be put together by the proponents. Once this has been done, it is likely that it may result in change in locations of several of the sites. Safety concerns were voiced earlier on for this proposal and these needs to be addressed vigorously as

the proposal if approved for drilling may be previewed by PPSP. Large scale seismic lines for all sites need to be deposited with the data bank. Site survey readiness is rated as 3B.

#### **6.6 Southern Gateway Aus.-Antarctic (485); PPSP**

*SSP Watchdog:* Casey  
*SSP Proponent(s):* none  
*Target Type:* B, D and G

This proposal involves drilling between Tasmania and the South Tasman Rise and Antarctica to address Cenozoic climate changes, paleo-ocean currents, the K/T boundary event, and the evolution of a transform margin. Significant new data had arrived at the data bank since the November meeting and the proponents are thanked for the high quality of the data submitted. The proposal was reviewed by SSP during the April, 1997 meeting. Subsequently the proposal was reviewed by ISSEP during their May meeting who made a suggestion that the tectonic sites TZ01 and TZ02 be replaced by other sites. Should alternate sites be added, the data package would have to be reviewed again in order to consider these new sites.

The data in the Data Bank includes all navigation files and maps, shot point data, SCS deep penetration profiles, migrated MCS profiles, velocity, 3.5 kHz, swath bathymetry, hi-resolution side looking sonar, magnetics, gravity, coring, rock sampling data. This data package is comprehensive and detailed. The proponents are thanked for their high quality data submissions.

*Site Survey Readiness:* remains as 1A

**SSP Consensus # 22** All of the required data for proposal 485 (Southern Gateway Australia-Antarctic) is now submitted to the DB. The proponents are thanked for their efforts in processing all the required data and depositing it with the Data Bank in time for SSP meeting. This proposal is now ready to be considered for drilling unless some of the sites are changed as proposed by ISSEP. In that case the new sites would have to be examined by the panel during their next meeting.

#### **6.7 Paleogene Equatorial Pacific APC Transect (486)**

*SSP Watchdog:* Permanent: Peterson; Acting: Flood  
*SSP Proponents:* None  
*Target types:* All sites A, Paleoenvironment

The proponents provided a detailed summary (dated June, 1997) of data existing in the vicinity of proposed sites in preparation for a funded site survey cruise on the R/V Ewing (7 Dec. 97 to 12 Jan 98) where additional site-survey data will be collected. Several site locations were modified slightly based on this analysis. An evaluation of these data suggests the following:

(1) Five of the proposed sites have data that is nearly adequate for drilling at the present time (PAT-4A, 5C, 6, 7, and 8A). Of these sites, only PAT-7 has a grid of lines. All of these sites are part of "Phase 2":

(2) Sites PAT-1B, 2 and 3, in Phase 2, may not have sufficient data for drilling. These sites will apparently not be surveyed during the upcoming cruise.

(3) The existing data at the remaining sites, as summarized by the proponents, is not sufficient for final site selection, but it is sufficient to demonstrate that appropriate sediment sequences will be observed on the new data. However, the available data was apparently not sufficient to demonstrate that appropriate sediment sequences will be observed at the northernmost site (PAT-16). This may mean that additional survey effort may be needed during the upcoming cruise to define one or more sites at the northern end of the transect.

(4) The SSP rating is 2B. The program is possibly viable for drilling in FY99, and likely for FY2000, should a scheduled site survey cruise proceeds as planned.



**SSP Consensus # 23:** An evaluation of existing data at proposed drill sites suggests that suitable sediment sequences will be observed during an upcoming R/V Ewing site-survey cruise (Dec 97-Jan 98), and that sufficient data will be available to allow final site selection to be made in time for one leg of drilling (Phase 1) in FY99. On this basis the proposal 486 (Equatorial Pacific Transect) is rated 2B. However, sufficient historical data was not available to demonstrate suitable sediments at the northernmost site. Site-survey effort will need to be directed to show that suitable northern site(s) are available.

**6.8 Ross Sea, Antarctica: Paleoceanography (489)**

*SSP Watchdog:* Casey

*SSP Proponents:* None

*Target types:* B (Passive margin)

No new data has arrived in the data bank since the April, 1997 SSP meeting relevant to proposed drill sites for 489 (Ross Sea). The data set is now extensive and includes most of the required data. The data in the DB include list of cores near the proposed sites, navigation lines for SCS, MCS, 2 Eltanin 3.5 kHz records and ANTOSTRAT CD-ROMs. Except for primary site 8B and alternate Site 5B, all required 3.5 kHz data are in the data bank. Although the proponents show ship tracks of 3.5. data near sites 8B and 5A, the Lamont data base contains only 12.5 data. 3.5 data for these sites was, however, considered not critical. In comparing previously submitted maps with proposal 489-REV, it appears that sites have been moved somewhat since the initial data submission and creation of the maps. This movement appears to accommodate SSP's request to move the sites short distances to be located at intersecting seismic lines (Sites with B designations). The old site designations and positions are on the maps and replotting is necessary for all sites that have been moved. The proponents MUST visit the Data Bank to properly annotate and locate sites and cross-reference different data types for each site. Maps such as the SCS navigation for site 4A (now 4B) and Site 5A (now 5B) include only one longitude tic and should be resubmitted with the correct Site designation and at least 2 longitude tics.

All shelf sites are at or near crossing MCS lines and/or SCS lines cross. Portions of MCS lines IT88A-34, and M\_87007, lines IFP 201-B1 and M\_89027-B are in the region of most drill sites and should be plotted for the data package. The data is on the ANTOSTRAT CD submitted by the proponents to the DB and the DB can assist the proponent in plotting these lines during the proposed visit to the DB. However proper annotation of maps and submission of data in support of the Safety panel review (lithologic, organic sediment, hydrocarbon shows) should be submitted. Should this proposal gets becomes a drilling leg a preview by the PPSP is very likely to take place.

*Site Survey Readiness Classification:* Remains 1B

**SSP Consensus # 24:** A nearly complete data package has been provided in support of proposed drilling, although some required items are missing and thought to exist for the Ross Sea proposal (489). The proponents must visit the Data Bank to properly annotate and relocate revised sites and cross-reference different data types for each site and provide new annotated maps. Alternatively resubmit data with proper maps and site locations and designations. Also, there will be a need for the proponents to summarize core data and the occurrence of organic sediments in near shore drill holes (e.g., CIROS holes) and in outcrop on land for a PPSP preview. Data on sediments will also be needed, especially where reentry is planned. This data package is ranked 1B, until these final items can be incorporated into the data package, at which time the proposal will be rated 1A.

**6.9 Prydz Bay Glacial History (490)**

*SSP Watchdog:* Paull

*SSP Proponents:* None

*Target types:* B (Passive margin)

**SSP Consensus # 25:** No data has been received for proposal 490 (Prydz bay) since the last SSP meeting. However, a site survey cruise was completed at our April meeting and a complete data package was expected at the DB for us to view at our July meeting. Correspondence from the proponents indicates that a revision is planned and an additional site survey data package will be prepared for submission to the data

bank. The rating of the proposal remains 2A (Substantial data exists, not in the DB and can be made available for 1999 drilling).

**6.10 Weddell Sea: Cenozoic glacial history and evolution of Weddell Sea Basin (503- add) -PPSP.**

SSP Watchdog : Hinz

SSP proponents : none

Target type : B for site WS04A/05A/06A; D for site WS01A.

The proposal was reviewed by the SSEP's during their May meeting. The proponents outlined in their comments of May, 1997 on the reviews, that they have carried out additional site survey studies during the Antarctic season, January-March, 1997, including medium and high resolution MCS lines together with swath bathymetry around the new alternate site WS07A, on the Polarstern Bank, along the Explora Escarpment and on the Maud Rise, and successful basement dredging near site WS07A. Parasound data (4-7 kHz) have also been acquired along all lines. The proponents mention that the new data will be sent to the DB as soon as the data are processed, together with an updated proposal #503 and a large scale map showing all existing seismic lines with shotpoint numbers.

*Site Survey Readiness Classification: Remains as 1B*

**SSP Consensus # 26:** SSP encourages the proponents of proposal 503 (Weddell Sea) to submit the new site survey data together with the updated version of their proposal to the JOIDES Office and to the DB before the next meeting of the SSP scheduled for the second half of February, 1998. Site Survey readiness of this proposal remains 1B in view of a large amount of data already submitted to the DB earlier.

## **7.0 OTHER BUSINESS**

### **7.1 Panel membership (Srivastava)**

Panel Chair Srivastava mentioned that the panel membership will be for a three year period for all new member in the new system. Roger Scrutton, the UK member, retired last November and it was mentioned that we have John Jones, his replacement at least for this meeting. Two other members, one from USA and one from Japan, are due to retire after this meeting. Question arose if they need to rotate off after this meeting or in February 98 meeting. According to Kathy Ellins, our JOIDES liaison, no guidelines exist for exactly when the members have to rotate off, and so it was decided that these members can stay on for another meeting. Srivastava mentioned about the suggestion was made by SCICOM Chair that SSP should think of increasing their panel membership as all panels are now allowed to have 16 members. After some discussion it was decided to suggest to SCICOM names of several US members for appointment to this panel for two reasons; one, this will overcome SSP concern of getting substitute members from other scientific panels for the absent US members at some of their meetings and two, as many of SSP members are due to retire at the end of 1998, appointing additional three members early next year would allow it to have a continuity in its operation. Several names were suggested for three new and one replacement US members.

**Action item # 4 :** Srivastava to write to SCICOM with the selected names of US candidates for their appointments to this panel as three new members and one replacement member.

### **7.2 SSP meetings for 1998 (Srivastava)**

We discussed timing and places for the coming meetings. Following was the general consensus about times and place for holding the winter meeting.

*Winter 1998 --- Berlin, Germany, Feb 24 - 26, 1998.*

**Action Item # 5:** SSP Chair Srivastava to write to SCICOM asking for their permission to hold SSP winter meeting from February 24 to 26, 1998 in Berlin Germany. The meeting will be hosted by Karl Hinz, our German member.

We also discussed the possibility of holding a special November meeting but this will not be known until OPCOM meeting in August. Srivastava to let those members, who will be needed at this meeting, know if a special November meeting will take place.

### 7.3 Other items

A. *Forms* : Dan Quoidbach had circulated copies of new proposal forms which effectively will replace the present forms all proponents have to include with their proposals. Some discussion took place and a number of suggestions were made. These will be incorporated and the new forms will form part of new guidelines for submission of proposal to the JOIDES office. The booklet, to accompany these forms, is to be updated by Kathy Ellins, Dan Quoidbach and Shiri Srivastava with some help from Mahlon Ball. This is will be circulated to members for comments. The forms have already been approved by EXCOM.

**Action Item # 6: Dan Quoidbach to have ready the new ODP guide booklet together with data forms for circulation to SSP members and liaisons for comments as soon as possible.**

B. *Nomination to other panels*: It was agreed at the last meeting that Jack Casey and Larry Peterson will be SSP liaisons to two SSEP's only for one meeting. Jack mentioned that ISSEP would prefer the same liaison to continue for the sake of continuity. After some discussion it was decided to have the followings as our liaisons to the two SSEP's at least for the November meetings and then decide if we wish to rotate them every time.

*SSEP Earth Interior*: November 97 meeting ----- Diebold  
Alternate ----- Jean-Claude Sibuet

*SSEP Earth Environment*: November 97 meeting ----- Charlie Paull  
Alternate ----- Roger Flood

**Action Item # 7: Srivastava to write to SCICOM informing them of the following SSP members as liaisons to the two SSEP October meeting.**

*SSEP Earth Interior*: November 97 meeting ----- Diebold  
Alternate ----- Jean-Claude Sibuet

*SSEP Earth Environment*: November 97 meeting ----- Charlie Paull  
Alternate ----- Roger Flood

C. *PPG*: We also discussed rotation of PPG liaison member. Gail Christeson, our PPG liaison on Long term observatory PPG, mentioned that perhaps the next PPG meeting could be attended by our Japanese member, as it seemed more appropriate for him to attend this meeting as it will be held in Japan in mid March 98. Furthermore, this meeting will be concentrating more on the fluid aspect of the problem. It was decided that our Japanese member will attend this meeting.

**Action item # 8: Srivastava to write to SCICOM informing them of our decision concerning the attendance at the next PPG meeting of Long Term Observatory by our Japanese member.**

Discussion also took place if we needed representations on other PPG's too. The only PPG which may be of concern to this panel would be the Architecture of Oceanic Lithosphere. It was decided to wait until outcomes from CONCORD meeting were known.

**Action item # 9 : Srivastava to write to SCICOM suggesting names of the SSP liaisons to SSEPs and PPG's.**

### 8.0 Visit to *Joides Resolution* on July 19, 1997.

The panel visited J/R on morning of July 19 and held a discussion with the Co-Chief Scientists Jamie Austin and Nick Christie-Blick and JOIDES logging scientist Greg Mountain. The discussion centered around on two aspect of the cruise; one, the safety issues which may have arisen during the cruise as the drilling was carried out in shallow water and two, SSP and PPSP guidelines of drilling in shallow water.

No safety problems arose during the entire cruise. Jamie Austin wished there were some as it would have kept PPSP member feeling lot more useful on this cruise. There was not a faint trace of any hydrocarbon on the entire Leg.

Numerous problems were encountered on this Leg drilling through loose sands. The drill string jammed numerous times because of these sands and some time, there were no alternatives to free the drill string, except to blow it out of the hole. As a hindsight, perhaps this should have been realised, as these sand units were encountered in the Cost - B2 well, drilled only 900 m away from one of the holes drilled on this Leg. This was only discovered during the cruise from a closer inspection of the logs brought on board. Suggestion was made that the present SSP guidelines need to be modified for drilling in shallow water, which would make it mandatory to examine the drilling logs from the nearest exploratory wells to the proposed sites by the proponents. These should be checked carefully to find out the lithological units encountered specially in the top 200 m of the sections. For this, perhaps SSP need to have a logging specialist on their panel or have one attend their meeting when such need arise. Casing the top section of the hole can avoid such sand units from collapsing in the hole but unless it is known before hand, drilling through sand units needs careful planning. On the same line of arguments, use of LWD (Logging while Drilling) in shallow water environment needs further careful considerations.

Other item discussed was navigation: Some difficulty with navigation was encountered. This was mainly due to failure or interference in the acoustic beacons used. Because of the narrow beam width used with these beacons, they were found to be less satisfactory in keeping the ship on station in shallow water using the present ASK system. Their depolyment has to be right on top of the hole. Also some problem arose because of noise in the dGPS receivers. This turned out to be due to a software problem. The Leg also was able to compare the two types of GPS receivers onboard. The Automatic Station Keeping system need careful evaluation and its possible replacement during dry docking in 1998/99 should be seriously considered.

**SSP Consensus # 27: The panel would like to thank Dan Quoidbach and people from the Data Bank for the care and thought they put in organising many things during this meeting.. We thank them for being such superb hosts for this meeting.**

**Quantitative Classification of proposals  
Site Survey Readiness Classification Scheme.**

- 1. Presently viable proposal for FY 99 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 99 drilling; likely for FY 2000**
  - 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 99 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 99 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 99 drilling if a **proposed** site survey proceeds as planned.
  
- 3. Unlikely for FY 99; possible for FY 2000.**
  - 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 2000 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 2000 drilling if a **proposed** site survey proceeds as planned.
  
- 4. Impossible for FY 99:** Required data are not in the data bank and not believed to exist. Data could be available after FY 99 if a **proposed** site survey proceeds as planned.
- 5. Impossible for FY 99:** 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.

**Site Survey readiness classification of proposals considered, July 97**

Type	Ranking (SSEP)	1. Viable for 99		2. Possibly viable for 99; likely for 2000			3. unlik. 99 possible 2000		4. imp-os. 99	5. impos. 99	6. Not consid.	7. Not consid.
	May 97	1A	1B	2A	2B	2C	3A	3B				
E A R T H  I N T E R I O R	Hst. I	426										
	Hst. I			431								
	Hst. I		445									
	Hst. I						448					
	Imp. II	450 **										
	Imp. II	451 (*)										
	Imp. II		463 *									
	Hst. I	472										
	Imp. II			499								
E A R T H  E N V I R O N M E N T	Hst. & Imp I & II					355						
	Hst. I			455								
	Hst. I		465									
	Imp. II						482 (*)					
	Hst. I							484*				
	Imp. II	485 (*)										
	Hst. I				486							
	Imp. II		489 (*)									
	Hst. I			490								
	Imp. II		503 (*)									

\*\* ---- ppsp preview will be required

(\*) ---- proposal may be modified, see minutes

\* ---- see comments.

Hst. ---- Highest Priority

Imp. ---- second priority and important to drill

**SSP Watchdog Assignments of Scheduled Legs 1998**

<b>Leg</b>	<b>Title</b>	<b>Proposal No.</b>	<b>April 1995 (BIO)</b>	<b>July 1995 (Lamont)</b>	<b>Nov 1995 (Lamont)</b>	<b>March 1996 (Edinburgh)</b>	<b>July 1996 (Lamont)</b>	<b>Nov. 1996 (Lamont)</b>	<b>April 1997 (ORI, Japan)</b>	<b>July 1997 (Lamont)</b>
176	Return to 735B	300-rev	Casey	Scrutton	Casey.	Casey/ Quoidbach	Casey/ Quoidbach	Casey/ Quoidbach	Casey/ Quoidbach	Casey/ Quoidbach
Leg 177	Southern Ocean Paleoceano.	464	Peterson	Flood	Peterson	Flood	Flood	Flood	Srivastava	All required data in DB
Leg 178	Antarctic Glacial History	452	-	-	-	-	Lykke-Andersen	Lykke-Andersen	Lykke-Andersen	Lykke-Andersen
	Palmer Deep	502	-	-	-	-	Peterson	Lykke-Andersen		
Leg 179	Nero + Hamm. Drill.								Christeson	Christeson
Leg 180	W. Woodlark Basin	447	Enachescu	Enachescu	Enachescu	Enachescu	Enachescu	Enachescu	Enachescu	Enachescu
Leg 181	Southwest Pacific Gateway	441	Peterson	out of geographic area	not in prospectus	Peterson	Peterson	Peterson	Peterson	Peterson
Leg 182	Australian Bight Carbonate	367	Enachescu	Enachescu	not in prospectus	Enachescu	Enachescu	Enachescu	Enachescu	Enachescu
Leg 183	Kerguelen Plateau	457-Rev, Rev3	Hinz	Tokuyama	Tokuyama	Hinz	Hinz	Tokuyama	Tokuyama	Saito

Appendix A

<i>SSP Watchdog Assignments of Highly Ranked Proposals</i>														
<i>SR 96</i>	<i>FR 96</i>	<i>Title</i>	<i>Prop.</i>	<i>April 1994 (Brest)</i>	<i>July 1994 (Lamont)</i>	<i>Nov. 1994 (Lamont)</i>	<i>April 1995 (BIO)</i>	<i>July 1995 (Lamont)</i>	<i>Nov 1995 (Lamont)</i>	<i>March 1996 (Edinburgh)</i>	<i>July 1996 (Lamont)</i>	<i>Nov. 1996 (Lamont)</i>	<i>April 1997 (Japan)</i>	<i>July 1997 (Lamont)</i>
--	--	Peruvian Margin /Gas Hydrate	355-Rev5	-----	-----	-----	Camerlenghi	Diebold	not in prospectus	---	-----	-----	Hinz	Diebold
L-2	--	Caribbean	384rev3, 408R2, 411, 415-Rev, 480	Mountain	Hinz	Scrutton	Hinz	Scrutton	Casey	outside area of operation for 1998	outside area of operation for 1998	---	---	-----
L-8	L-9	Austr.-Ant-arc. Discordance	426	Kastens	out of geographic area	out of geographic area	Kastens	Enachescu	not in prospectus	Toomey	Toomey	Sibuet	Sibuet	Sibuet
T-3	T-2, L-2	W. Pacific Seismic Network	431							Toomey	Toomey	Peterson	Christeson	Christeson
T-5	--	Mariana back-arc basin	442	Tokuyama	out of geographic area	out of geographic area	Tokuyama	out of geographic area	not in prospectus	Kuramoto	Kinoshita	---	Tokuyama	not in prospectus
S-2, T-5	S-2, T-5	Nankai defor. & fluids	445-Rev	-----	-----	-----	Camerlenghi	out of geographic area	not in prospectus	Paull	Paull	Diebold	Paull	Paull
L-1	--	Ontong Java Plateau origin	448				Tokuyama	out of geographic area	not in prospectus	not quite ready	out of area of operation	---	Tokuyama	Jones



<i>SSP Watchdog Assignments of Highly Ranked Proposals</i>														
<i>SR 96</i>	<i>FR 96</i>	<i>Title</i>	<i>Prop.</i>	<i>April 1994 (Brest)</i>	<i>July 1994 (Lamont)</i>	<i>Nov. 1994 (Lamont)</i>	<i>April 1995 (BIO)</i>	<i>July 1995 (Lamont)</i>	<i>Nov 1995 (Lamont)</i>	<i>March 1996 (Edinburgh)</i>	<i>July 1996 (Lamont)</i>	<i>Nov. 1996 (Lamont)</i>	<i>April 1997 (Japan)</i>	<i>July 1997 (Lamont)</i>
T-1, S-18	T-4, L-7, S-9	Taiwan arc/cont collision	450	Sibuet	out of geographic area	out of geographic area	Scrutton	out of geographic area	not in prospectus	Sibuet	Sibuet	Sibuet	Sibuet	Sibuet
L-4, T-7	L-3, T-3, S-8	Tonga Forearc	451-Rev2, Rev3				Scrutton	out of geographic area	not in prospectus	Diebold	Scholl/ Srivastava	Diebold	Diebold	Diebold
Ants.	---	Bransfield St., History	453	-	-	-	-	-	-	-	Lykke- Andersen	---	---	---
		Laurentide Ice Sheet	455	-----	-----	-----	-----	-----	-----	-----	-----	-----	Lykke- Andersen	Lykke- Andersen
		Plume Impact Shatsky Rise	463	-----	-----	-----	-----	-----	-----	-----	-----	-----	Diebold	Hinz
O-3	---	SE Pacific Paleoceano	465-Add	----	----	----	Peterson	Tokuyama	not in prospectus	Peterson	Peterson	not in prospectus	Peterson	Peterson
		Sea Level Ch. W. Med	467	-----	-----	-----	-----	-----	-----	-----	-----	-----	Paull	not in prospectus
L-7, S-7	L-4, S-5, T-6, O-9	Izu-Mariana Mass Balance	(435-Add2), 472	-----	-----	-----	Scrutton	out of geographic area	not in prospectus	Scrutton	Scrutton	Diebold	Diebold	Diebold
Anst.	O-6	Wilkes Land Margin	482								Paull	Flood	not highly ranked	Flood

<i>SSP Watchdog Assignments of Highly Ranked Proposals</i>														
<b>SR 96</b>	<b>FR 96</b>	<b>Title</b>	<b>Prop.</b>	<b>April 1994 (Brest)</b>	<b>July 1994 (Lamont)</b>	<b>Nov. 1994 (Lamont)</b>	<b>April 1995 (BIO)</b>	<b>July 1995 (Lamont)</b>	<b>Nov 1995 (Lamont)</b>	<b>March 1996 (Edinburgh)</b>	<b>July 1996 (Lamont)</b>	<b>Nov. 1996 (Lamont)</b>	<b>April 1997 (Japan)</b>	<b>July 1997 (Lamont)</b>
O-5, S-5, T-6	---	E. Asian Monsoon History	484							Peterson	no data	---	Peterson	Paull
O-6	O-8, T-9	S. Gateway Australia-Antarctica	485							Casey	Casey	Casey	Casey	Casey
		Paleogene Equatorial Pacific transect	486	-----	-----	-----	-----	-----	-----	-----	-----	-----	Peterson	Flood
Ants.	O-6	Ross Sea	489	-	-	-	-	-	-	-	Casey	Flood	Casey	Casey
Ants.	---	Prydz Bay	490	-	-	-	-	-	-	-	Sibuet	---	Sibuet	Paull
		VRMS & oceanic Pl.	496	-----	-----	-----	-----	-----	-----	-----	-----	-----	Enachescu	not in prospectus
		ION Equatorial	499	-----	-----	-----	-----	-----	-----	-----	-----	-----	Christeson	Christeson
Ants.	---	Weddell Sea	503	-	-	-	-	-	-	-	Hinz	Hinz	Hinz	Hinz
		Sea Level Canterbury Basin	511	-----	-----	-----	-----	-----	-----	-----	-----	-----	Paull	not in prospectus

## Appendix B

### Results of ISSEP Review (Casey)

<b>I. Highest Priority Proposals</b>	<b>SSP Ranking</b>
426 Australian Antarctic Discordance	2C
431 Western Pacific Seismic Network	2A
445 Nankai Deformation and Fluids	
	1B
448 Ontong-Java Plateau	3A
472 Mass Balance Izu-Mariana	1A

### **II Important to drill for ISSEP goals**

450 Taiwan Arc-Continent Collision	1A
451 Tonga Forearc	1A
463 Shatsky Rise	1B
499 ION Equatorial	3B

### **III Primarily under ESSEP mandate, but makes significant contributions to ISSEP goals.**

355 Peruvian Margin Gas Hydrates	2C
----------------------------------	----

### **IV Shows promise, but needs revision.**

442 Mariana Back Arc Basin	2C
496 VRMS and Oceanic Plateau	2C

### **V In mandate, but not encouraged**

(496 closest to this after vote, but left it under IV above)

Other proposals were reviewed, but judged to be strictly under ESSEP mandate.

These include: 455, 472, 485, 486, 482, 489, 490, 503, 511

## Appendix C

2.7

### ESSEP LIAISON REPORT (Peterson)

The newly constituted Environmental SSEP met for the first time on June 2-4 in Washington, DC, with Dr. Ted Moore serving as Chair. The ESSEP discussions of proposals and their reviews resulted in the following attempt to categorize proposed drilling programs in terms of their interest to ESSEP and their relevance to scientific priorities of the ODP Long Range Plan.

Interest Level/ <u>PROGRAM</u>	Category/				
	I (High)	II (Important)	III (ISSEP Lead)	IV (Revise)	V (No interest)
Peru Margin 355	2	2			
Nankai 445	1				
Ontong-Java Plateau 448			1		
Laurentide ISO 455	1				
Shatsky Rise LIP 463		1	3		
SE Pacific Paleocean. 465	1				
Wilkes Land 482		2		2	
East Asian Monsoon 484	1				
S. Gateway Ant./Aus. 485		1			
Paleogene Eq. Pac. 486	1	3			
Ross Sea 489		2		2	
Prydz Bay 490	1	3		3	
VRM-W.Aust. Margin 496					1
Weddell Sea 503		2		2	
Canterbury Basin 511			3		1

"Support" Level: 1 = strong

2 = fairly even split

3 = minor/trace

## Appendix D

Report on first meeting of Long-Term Observatory PPG, July 8-9, 1997, Monterey by SSP liaison Gail Christeson:

### **JOIDES Long-Term Observatory PPG (Program Planning Group)**

#### **Members:**

Keir Becker, Univ. Miami (co-chair)  
Kiyoshi Suyehiro, ORI, Japan (co-chair)  
Bobb Carson, Lehigh Univ.  
Rowena Duckworth, James Cook Univ., Australia  
Fred Duennebier, Univ. Hawaii  
Jean-Paul Foucher, IFREMER, France  
Masatake Kinoshita, Tokyo Univ., Japan  
Mike Lovell, Univ. Leicester, UK  
Elizabeth Screenshot, Univ. Colorado  
Debra Stakes, MBARI  
Heinrich Villinger, Univ. Bremen, Germany

#### **Liaisons and Guests:**

Kevin Brown (Liaison, SCICOM)  
Gail Christeson (Liaison, SSP)  
Barbara Romanowicz (Guest - ION)

- Mandate Item #1: To devise experiments that incorporate the use of ODP boreholes for long-term measurements at seafloor observatories.**
- Mandate Item #2: To recommend mechanisms for the implementation, emplacement, and oversight of borehole-related instrumentation in the context of seafloor observatories planned by other global geosciences initiatives.**
- Mandate Item #3: To organize the development of instrumentation/ experimental proposals in collaboration with appropriate global geoscience initiatives.**
- Mandate Item #4: To recommend ways in which instrumentation in boreholes can be serviced and maintained by, and data retrieved from, platforms other than the JOIDES Resolution.**
- Mandate Item #5: To provide advice on site survey data, core measurements, logging requirements and the completion of boreholes in preparation for instrumentation.**

The first meeting of the Long-Term Observatory PPG focused mostly on understanding their mandate and organizing a long-term approach to fulfilling that mandate. The scope of present national and international seafloor observatory efforts was reviewed. Existing ODP proposals in the western Pacific region with observatory components were discussed. The group decided that a document tentatively titled 'Generic Borehole Observatory Handbook' would be drafted before the next PPG meeting; the handbook would provide advice to potential PIs. Site survey requirements for ION sites and CORK holes were discussed. The next meeting was tentatively scheduled for March 4-5, 1998 in Japan.

#### **Discussions specific to SSP:**

The current SSP requirement for ION sites was stated: 1) 3.5 kHz data. 2) Deep penetration seismic reflection data; data should be capable of defining the basement topography at each site and the time to Moho. SSP does not require 3D data, but would like crossing lines at the site location. 3) Velocity-depth information from seismic refraction data. The PPG discussed these requirements, and decided they were too strict for ION sites on simple oceanic crust where no other observatory components were planned. Their consensus was that information on water depth and depth to basement was needed for these holes, and that crossing single-channel seismic lines should be sufficient. Detailed local structure is not a significant concern for global seismological purposes because of the scale involved.

**CORKs:** CORKs allow investigators to measure in-situ fluid flow in a formation, and work well in a hydrologically active formation beneath a less permeable formation. The PPG felt there were misunderstandings in the community about what CORKs can and cannot provide, and will include a section in their borehole observatory handbook on the limitations of CORKs. In terms

of site surveys, the PPG thought that there should be some evidence of fluid flow before a CORK is scheduled. This evidence could differ from site to site.

The next meeting will discuss site survey requirements of observatories in more detail, and specifically the requirements for active processes observatories.

### **PPG Report - Generic Borehole Observatory Handbook**

A. Intro statement - define observatory.

B. Generic borehole experiment - present types

1. global structure observatory (ION sites)

2. regional strain monitor

3. active processes and/or hydrology (young crust, subduction, mid-plate volcanism, biosphere, extensional settings)

C. Limitations

1. Technical

2. Infrastructure

3. Management

D. Encouragement of innovation

Appendix: Map and table of reentry sites

Unanswered questions: After holes are drilled, who funds observatories, servicing, ship time, ROVs, etc.? How is data retrieved?