FINAL
(September 1995)

MINUTES
JOIDES SITE SURVEY PANEL MEETING
July 26-28, 1995
Lamont-Doherty Earth Observatory,
Palisades, New York, USA

Members: Srivastava, Shiri (*GSC Atlantic, Canada*) Chair
Diebold, John (*L-DEO, USA*)
Enachescu, Michael (*Husky, Canada*)
Flood, Roger (*SUNY, USA*)
Lykke-Andersen, Holger (*U. Aarhus, Denmark*)
Scrutton, Roger (*U. Edinburgh, UK*)
Tokuyama, Hidekazu (*ORI, Japan*)

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

Liaisons: Ball, Mahlon (*PPSP*)
Ellins, Kathy (*JOIDES Office*)
Mountain, Greg (*PCOM*)
Quoidbach, Daniel (*ODP Data Bank*)
Shor, Alexander (*NSF*)
Wallace, Paul (*ODP/TAMU*)

Apologies: Casey, Jack (*U. Houston, USA*)
Hinz, Karl (*BGR, Germany*)
Paull, Charles (*U. North Carolina, USA*)
Peterson, Larry (*RSMAS, USA*)
Sibuet, Jean-Claude (*IFREMER, France*)
Toomey, Douglas (*U. Oregon, USA*)

Guest: Keigwin, Lloyd (*WHOI, USA*)

Observers: Falvey, David (*JOI, USA*)
Bonatti, Enrico (*CNR, IT*)

AGENDA

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Palisades, NY, USA

1. PRELIMINARY MATTERS

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

2. REPORTS

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

3. SITE SURVEY IMPLICATIONS OF RECENTLY DRILLED LEGS

- 3.1 Leg 160: Eastern Mediterranean (Wallace)
- 3.2 Leg 161: Western Mediterranean (Wallace)

4. SITE SURVEY STATUS OF UPCOMING SCHEDULED LEGS

- 4.1 Leg 163: Volcanic margin, East Greenland (Scrutton/Quoidbach)
- 4.2 Leg 164: Gas Hydrate (Lykke-Andersen/Quoidbach)
- 4.3 Leg 165: Caribbean Ocean History (Diebold/Quoidbach)
- 4.4 Leg 166: The Bahamas Transect (Enachescu/Quoidbach)
- 4.5 Leg 167: California margin (Flood/Quoidbach) *
- 4.6 Leg 168: Juan de Fuca Hydrothermal Circulation (Quoidbach)
- 4.7 Leg 169: Sedimented Ridges II (Quoidbach)
- 4.8 Leg 170: Costa Rica Accretionary Wedge (Tokuyama/Quoidbach)

5. POTENTIAL FUTURE DRILLING: SGPP

- 5.1 473: Saanich Inlet (Lyle/Casey) **
- 5.2 348: New Jersey (Flood)
- 5.3 367: Great Australian Bight Carbonates (Enachescu)

6. POTENTIAL FUTURE DRILLING: OHP

- 6.1 354add4: Benguela Current (Lyle/Paull)
- 6.2 464: Southern Ocean Paleoceanography (Flood/Peterson)
- 6.3 404rev2: Late Neogene Paleoceanography (Lykke-Andersen) *
- 6.4 462: Blake Plateau and Blake Nose (Lykke-Andersen)
- 6.5 465: SE Pacific Paleoceanography (Tokuyama/Peterson)

7. POTENTIAL FUTURE DRILLING: LITHP

- 7.1 300: Return to 735B (Scrutton/Casey)
- 7.2 411: Caribbean basement drilling (Scrutton/Hinz)
- 7.3 457: Kerguelen Plateau (Tokuyama/Hinz)
- 7.4 426: Australian Ant. Discordance (Enachescu/Toomey)
- 7.5 471: Nicaragua mass balance (Scrutton)

8. POTENTIAL FUTURE DRILLING: TECP

- 8.1 447rev: Woodlark Basin (Enachescu)
- 8.2 461add: Iberia 2 (Diebold)
- 8.3 468: Romanche FZ (Diebold/Toomey)
- 8.4 355rev: Peru Tectonic Erosion (Diebold)

9. OTHER BUSINESS

- 9.1 Long Range Plans (Ellins)
- 9.2 Feedback to proponents (Srivastava)
- 9.3 Membership in the panel and attendance (Srivastava/Ellins)

9.4 Next two Meetings (Srivastava)
9.5 Any other business (Srivastava)

* --- Presentation of data by guest and alternate
** -- Possible candidate for PPSP preview.

Executive Summary
JOIDES Site Survey Panel Meeting
July 26-28, 1995
Lamont-Doherty Earth Observatory,
Palisades, New York, USA

Charge for this meeting:

The goals for this meeting were to: (1) to evaluate the site survey readiness of proposals that were highly ranked at the spring thematic panel meetings and are within the geographic area of operations for FY'97 defined at the April PCOM meeting; (2) to advise proponents of these proposals about data that they need to acquire and/or submit to the Data Bank in order to become contenders for FY'97 scheduling; (3) to evaluate the site survey readiness of legs scheduled for drilling; and (4) to assess any site survey issues arising from legs that were drilled since our last meeting. The main customer for the output of the SSP summer meeting is PCOM, who use the evaluations resulting from item (1) above as input into the process of creating the prospectus for FY'97 drilling; PCOM will create this Prospectus at their August meeting.

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

SSP recommendation # 1 to PCOM, concerning the delivery of processed seismic data to the Data Bank at the end of a drilling Leg: SSP reiterates its recommendation that PCOM advice JOI to direct ODP/TAMU to process underway seismic profiles aboard the *Joides Resolution* and deliver both the paper displays and processed electronic files to the Data Bank at the end of each Leg.

Explanatory note:

During SSP April meeting it was requested by SSP, for ODP/TAMU liaison, to convey to support group of ODP/TAMU implementation of approved SSP recommendation on processing of underway seismic data in a certain fashion. ODP/TAMU response has been less than 100% and SSP is concerned about it.

Seismic data are routinely collected aboard the drill ship during site approach and -departure, and occasionally is collected in short reconnaissance survey designed to tie to existing data or to provide additional regional coverage. A good and relatively easy-to-use acquisition system is maintained aboard the drillship. The data that it provides represent a valuable resource to the Co-Chiefs for site evaluation and planning, to the entire scientific party for rock and log interpretation, and (post-cruise) to subsequent proponents wishing to build on the results of earlier drilling expeditions. SSP emphasises that the few (probably less than 10) hours of time needed to process and re-display these digital data in a manner most useful to the leg objectives is a worthwhile task for the marine technician assigned to the underway lab. We realise this puts additional strain on an already heavy workload of shipboard technicians; nonetheless, a Lab Officer aware of the contribution that re-displayed seismic data have to leg Objectives should be able to find ways, in consultation with the Co-Chiefs, to devote the modest amount of manpower to this task.

SSP recommendation # 2 to PCOM, concerning the report of man-made seafloor hazards to PPSP: SSP requests that PCOM direct JOI to direct ODP/TAMU to report the results of its search for man-made seafloor hazards to PPSP during the final safety review of proposed sites.

Explanatory Note:

SSP has been greatly concerned that seafloor hazards are not being located in enough time prior to a drilling Leg. In our earlier recommendation to PCOM (November 1994) we had recommended that location of these hazards (cables, dump sites, etc.) largely be a ODP/TAMU responsibility. At the same time we have been cautioning proponents of shallow water and continental margin drilling near populated areas that they must try to find out as much information about these as possible and as earlier on as possible, in order to locate their sites away from these hazards. It seems that this information is not compiled early enough in the program so that sites have to be moved after the PPSP review, a process which causes undue confusion. We cite the recent case in which about 1.5 to 2 months before Leg 161 (after safety review) ODP/TAMU found several submarine cables, in addition to those which had already been reported by scientific proponents, so that two of the sites located near them had to be moved farther away. It should not be assumed that proponents are aware of all sources that need to be consulted in making a thorough search; too much is at stake to leave this to potentially ill-informed proponents; however sincere and determined their efforts may be. SSP would like to see that ODP/TAMU is charged with the responsibility of reporting such man-made hazards at the final review of proposed sites by PPSP.

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SSP Action Item #1: Srivastava to request PCOM Chair Rob Kidd if **JOIDES Office liaison Ellins could notify SSP members by email of which programs were put in the FY '97 Prospectus** and SSP Chair on items relevant to SSP, resulting from the August PCOM meeting.

SSP Action Item #2: Data Bank Manager **Quoidbach to write to the Co-Chiefs of scheduled legs**, reporting the sense of SSP discussion and enclosing the appropriate section of the draft minutes.

SSP Action Item #3: **Watchdogs to write to the lead proponent of all other programs** discussed, reporting the sense of the SSP discussion and enclosing the relevant section of the minutes. A copy of these letters to be sent to the ODP Data Bank. These letters can be sent by e-mail.

SSP Action Item #4: **Srivastava to poll absent members on their opinion about appointment of alternate members** and then bring this for further discussion at the November meeting. Srivastava to discuss this at yearly PANCH meeting, too, to get feedback from other panel chairs.

SSP Action Item #5: Considering the large amount of data which each member has to look through during the July meeting, it was suggested by the panel that **Srivastava poll absent members on their opinion on increasing the length of the July meeting to a three and half days meeting.**

SSP Action Item #6: **Srivastava to poll absent SSP members about the time for the spring meeting** and request PCOM's permission to hold this meeting in Edinburgh accordingly.

SSP Action Item #7: **Srivastava to request approval from JOIDES Office for the November SSP meeting** to be held at LDEO, from November 6 to 8, 1995.

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SSP Consensus #1. SSP requests the **Co-Chief scientists of Leg 163 (SE Greenland margin)** to submit site summary forms for the new alternate sites so that we know if the new data images the earlier drilling objectives. It also asks the Co-Chief Scientists to consider whether the alternate sites could be positioned on crossing seismic lines.

SSP Consensus # 2. SSP appreciates the efforts made by the **Co-Chief scientists of Leg 164 (Gas hydrates)** in supplying almost all of the items as requested during their April meeting. In SSP opinion the data package can now be considered complete.

SSP consensus # 3. The data set for scheduled **Leg 165 (Caribbean ocean history)** is nearly complete, and could serve as it is if necessary. It is highly desirable, however, that displays of Andre Droxler's R/V EWING SCS data with modified AGC parameters be deposited in the ODP Data Bank as soon as possible.

SSP Consensus # 4 : SSP notes that all required and recommended data for **Leg 166 (The Bhamas transect)** are now in the Data Bank and therefore the data package for this leg can now be considered complete.

SSP Consensus # 5. All required data for **Leg 167 (California margin)** is in the data bank. These data are of high quality and satisfy the requirements for drilling the proposed sites. We recommend that seismic data in the vicinity of Site CA-1B be processed to enhance the BSR in this region and that a structural map for this part of the survey be created to allow potential safety problems to be evaluated. Final site selection and prioritization now needs to proceed so a safety package can be prepared.

SSP Consensus # 6 : No new data have been supplied for **Leg 168 (East Juan de Fuca Hydrothermal)** since the Nov. 94 meeting. Additional data from this summer's site survey cruises should be submitted to the Data Bank as soon as is feasible. These should include copies of visual imagery from submersible dives at proposed drill sites where use of a hard rock guide base is envisioned (e.g., at site PP-6) together with seismic reflection and locations of final sites.

SSP Consensus # 7: Site survey status for **Leg 169 (Sedimented Ridges II)** remains unchanged since the April meeting. The Co-Chiefs are reminded that they should deposit the requested side scan sonar data from the Escanaba Trough and ROV video/photographic data, together with a track map with location of sites plotted from the Middle Valley with the DB as soon as possible. If any additional seismic reflection and bathymetry data have been collected across the proposed sites, these should also be deposited with the DB before the November 1 deadline. SSP remains concerned that no visual markers

could be placed at the proposed sites for this Leg so far in spite of repeated suggestions to the proponents.

SSP Consensus # 8: Site survey data set for **Leg 170 (Costa Rica accretionary wedge)** is now complete for the structural and fluid objectives.

SSP Consensus # 9. With the exception of 3.5kHz data the required single channel data for **Saanich Inlet (proposal 473)** is now in the Data Bank. A set of new sites have been selected which lie in water depths greater than 200m and thus the Leg does not require shallow water hazard site survey data. One of these sites , however, lies close to a region which is designated as "firing and practice area" on the map supplied. This should be investigated further if a hazard exist there. Critical data about manmade hazards for all sites should be located as soon as possible and the proponents be in touch with TAMU about it.

SSP Consensus # 10: Newly collected seismic data will substantially fulfil the needs of a shallow water hazards survey for drilling on the **New Jersey Shelf (proposal 348)**. Additional needed side-scan sonar data will be collected in spring 1996.The proponents are reminded to deposit the site data with the DB before November 1 dead line.

SSP Consensus # 11: **Proposal 367 (Great Australian Bight Carbonate)** should be revised where all sites located in water depths less than 200 m need to be either shifted to deeper water depths or meet Shallow Water Hazards guidelines. A site survey cruise to acquire pertinent data is planned to be carried out, during the northern winter of 1995/1996 by the proponents. This data must be supplied to the Data Bank as soon as possible. The proposal needs to be reviewed once all this new data together with revisions of site locations are submitted to the Data Bank.

SSP Consensus # 12: Most required and recommended data in support of the **Benguela Current proposal (354add4)** are in the data bank, and SSP appreciates the efforts made by the proponents in responding to its concerns. SSP urges the proponents to acquire additional high resolution Parasound seismic data along crossing lines at the proposed sites NCB2 and SCB1 during the forthcoming METEOR cruise scheduled for January 1996.

SSP Consensus # 13: One site survey cruise is scheduled for early 1996 to provide required data for proposed sites for **South Atlantic paleoceanographic transect proposal (464)** and a second cruise is expected but not yet scheduled. SSP encourages proponents to continue to assemble and submit already existing survey data to the ODP Data Bank in as timely a fashion as possible.

SSP Consensus # 14: Working-scale maps and annotated 3.5 kHz data for all proposed sites for **NW Atlantic Sediment Drift proposal (404)** are now in the Data Bank. While each site is located on very good to excellent 3.5 Khz profiles, proposed target depths in several cases exceed the acoustic penetration of these data. This would pose no problem if it were not that several sites are at a significant distance (e.g. 1.75, 2.0, 2.5, and 7.0 nmi) from available seismic profiles. SSP notes with concern that this will limit the ability to: 1) confirm that each site is optimally located for the depth of proposed drilling; 2) construct acoustic correlations between the sediments of each site; and 3) place drilling results into a regional stratigraphic context. SSP reminds the proponent that the existence of seismic data, even in the nearby Lamont-Doherty archives, does not by itself constitute deposit with the Data Bank. Until useful-scale copies of a profile at or near by sites BBOR-4 and -4A arrive at the Data Bank with the necessary annotations of scales and site location, this data set is incomplete.

SSP Consensus # 15: The data set for **Blake Nose proposal (462)** is now complete.

SSP Consensus # 16: Site survey data are currently inadequate for specific site selection for **SE Pacific Paleoceanography (465)**. We encourage proponents to continue their efforts to locate and compile available site survey data from the region, and to submit relevant data to the Data Bank in order to rise the rank of site survey readiness. SSP also recommends the proponents to continue their efforts in procuring funds for collection of data at the chosen sites.

SSP Consensus # 17: SSP reiterates its consensus of April '95, that the required data for **proposal 300 (Return to site 735B)** is now available in order to deepen Site 735B. However, it recommends that continued efforts be made to acquire video or photographic imagery for offset drill sites. In both cases it is advised that the proponents should be in touch with ODP/TAMU (Dr. Jay Miller) concerning the use of the HRGB in this proposal. Additional data from the Cambridge experiment should be deposited with the data banks before November 1 deadline.

SSP Consensus # 18. There are still required data types to be submitted to the Data Bank for sites VB1, S6, A1 and C1, for the **Caribbean Cretaceous Basalt Province proposal (411; 480)** but there is every likelihood that these will be forthcoming. The target type of BR1 and BR2 remains to be established, but once it is, it seems likely that the required site survey data will become available. Overall, this proposal is categorised as a possibly viable candidate for 1997 drilling.

SSP Consensus # 19: SSP reiterates its recommendation to the proponents of **Kerguelen Plateau proposal (457-rev1)** that though most of the required data for this proposal can be assembled from the existing data not only what exist in the data bank but elsewhere, they still need to submit some additional data at some of the sites. They should provide copies of the new data to ODP Data Bank before Nov. 1st together with further documentation on the sites so that these can be located on the existing data at the DB. They must also resolve the confusion of site names which has arisen. The excessive amount of total drilling time and lack of adequate data at some of the sites are very likely to require elimination of several sites from the present very ambitious 18 site drilling plan.

SSP Consensus # 20 : No data are in the DB in support of the **Australia-Antarctic Discordance proposal (426).** A site survey is funded and planned for early 1996. SSP would like to reiterate their earlier suggestion to the proponents that sufficient good quality seismic data should be collected on the planned cruise to accurately define the depth to basement plus magnetic anomaly data of sufficient quality to lay out an array of holes tied to specific flowlines and isochrons.

SSP Consensus # 21: Required data for **Nicaragua Mass Balance proposal (471)** are not in the Data Bank and not believed to exist. A site survey proposed earlier has been unsuccessful in getting funded and no other cruise is proposed at this time.

SSP Consensus # 22 : SSP acknowledges that a nearly comprehensive data package supporting drilling in the **West Woodlark Basin (447-rev)** now exists in the Data Bank. A few items like cross lines are yet to be supplied and it is understood that they will be collected during the October EWING cruise. Seismic lines together with visual and coring data for site 3A, on top of the seamount, will complete the data package and answer all SSP concerns. Site 3A may need a discussion with proponents and a PPSP preview at a future meeting.

SSP Consensus # 23. No new data has been submitted to the Data Bank since our April '95 meeting for **Return to Iberia proposal (461)** though most of the required data is in the data bank. The previously mentioned Discovery cruise is currently underway, and it is anticipated that the resulting data will provide additional [but not required] 3-D coverage of several sites. In addition, we note that an NSF funded survey in the area is now scheduled.

SSP Consensus # 24: SSP April consensus remains unchanged that although no data package has yet been deposited for the new **Romanche Fracture Zone (468,480) proposal,** it appears from the proposal that quite a bit of pertinent data exists around the proposed sites. For sites ROM-1a and ROM-2a, on limestone caps, the proponents need to clarify their spud-in strategy, and provide visual data if a hard rock guidebase is needed. Site ROM-3a, proposed for 1000m penetration into a thick pile of deformed sediments of unknown origin, could present safety problems.

SSP Consensus # 25. The existing data set supporting ODP leg 112 is present in the data bank, and partially fulfils 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 and it is difficult, if not impossible, to locate the projections of the sites on both lines. A large scale navigation plot of lines 1018 and CDP-1 should be made available, with CDP numbers and site locations annotated, as should 3.5 kHz and swath bathymetry data, if they exist. A previous consensus, that additional heat flow interpretations and/or data be submitted to the data bank has not yet been acted upon.

Minutes
JOIDES Site Survey Panel Meeting
July 26-28, 1995
Lamont-Doherty Earth Observatory,
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Note: These minutes are arranged in logical order for ease of reading, and do not reflect the exact order in which items were discussed at the meeting.

1. PRELIMINARY MATTERS

1.1 Introduction and logistics (Srivastava)

SSP Chair Srivastava welcomed all those present, especially the new members. It was followed by a self introduction by all. He mentioned the appointment of Mitch Lyle by PCOM to SSP for two meetings to serve as an alternate to Charlie Paull who was unable to attend. Lyle will also present data readiness on the California Margin, Leg 167.

Dave Falvey of JOI attended the meeting as a guest and he agreed to give a JOI report.

Consensus statements from the April meeting were included in the hand outs to ensure that panel members would be able to assess the changes which have taken place in different proposals since the previous meeting.

Some discussion followed on the increase in size of the minutes which makes it difficult to be read in entirety. It was decided that efforts be made to decrease its size and besides including SSP consensus on proposals in the executive summary, to include a quantitative SSP rankings of proposals according to their readiness for drilling as well. This can then easily be circulated by Joides Office, soon after the SSP meeting, to PCOM members before their meeting.

1.2 Action items from April 1995 BIO, Dartmouth Meeting (Srivastava)

April Action Item #1 SSP Chair Srivastava to forward to PCOM the list of the **six candidates** together with their CV's and the panel recommendations for their consideration at their next meeting.

Done

April Action Item # 2: SSP chair Srivastava to request **approval from the JOIDES Office for the July and November SSP meetings** to be held at LDEO, from July 26-28 and November 6-8, 1995 respectively.

Done

April Action Item # 3: SSP liaison to convey to the technical support group at ODP/TAMU the following suggested procedure from SSP concerning implementation of the recommendation on **processing underway seismic data** approved by PCOM at their Dec 94 meeting.

TAMU response as conveyed by Paul Wallace:

Presently our two underway technicians provide the level of support specified (trace editing, filtering, agc, display, 36"-wide plots). Other than making a single plot of the data, the u/w technician usually has no more time to help, and so this work is usually accomplished by shipboard scientists (after training by the u/w tech). The u/w technician position is only a part-time position that is split with core lab duties. Their primary duties are to work in the core lab, to ensure that the u/w data collected is of the highest quality possible, to carefully archive the data, and to make it available to the scientists (in both digital and paper form). On high recovery legs, the u/w tech will usually have little time for additional plots. When urgent and no shipboard scientist is available, Co-chiefs in consultation with the Staff Scientist and Lab Officer can easily request that the u/w tech make additional seismic data plots. However, it should be noted that this may have an impact on core flow or other core lab activities.

Concerning the request that TAMU provide seismic reflection data to the ODP Data Bank, paper plots (produced either on board or post-cruise) and DAT (4mm) or EXABYTE (8mm) SEGY data will be provided to the DB starting with Leg 161. Previous legs can also be done upon request if needed for an active proposal undergoing SSP review. In some respects, providing all the seismic data in this fashion is a duplication of effort and resources because these data are presently

archived at TAMU. SEGY data is available from TAMU and should be requested by proponents if necessary as part of their responsibility for providing individual proposal data packages. It might, therefore, be more efficient to supply the data to the DB only for those proposals which are undergoing SSP review.

Considerable discussion followed on this item resulting in formulating the following recommendation to PCOM.

SSP recommendation # 1 to PCOM, concerning the delivery of processed seismic data to the Data Bank at the end of a drilling Leg: SSP reiterates its recommendation that PCOM advice JOI to direct ODP/TAMU to process underway seismic profiles aboard the *Joides Resolution* and deliver both the paper displays and processed electronic files to the Data Bank at the end of each Leg.

Explanatory note:

During SSP April meeting it was requested by SSP, for ODP/TAMU liaison, to convey to support group of ODP/TAMU implementation of approved SSP recommendation on processing of underway seismic data in a certain fashion. ODP/TAMU response has been less than 100% and SSP is concerned about it.

Seismic data are routinely collected aboard the drill ship during site approach and -departure, and occasionally is collected in short reconnaissance survey designed to tie to existing data or to provide additional regional coverage. A good and relatively easy-to-use acquisition system is maintained aboard the drillship. The data that it provides represent a valuable resource to the Co-Chiefs for site evaluation and planning, to the entire scientific party for rock and log interpretation, and (post-cruise) to subsequent proponents wishing to build on the results of earlier drilling expeditions. SSP emphasises that the few (probably less than 10) hours of time needed to process and re-display these digital data in a manner most useful to the leg objectives is a worthwhile task for the marine technician assigned to the underway lab. We realise this puts additional strain on an already heavy workload of shipboard technicians; nonetheless, a Lab Officer aware of the contribution that re-displayed seismic data have to leg Objectives should be able to find ways, in consultation with the Co-Chiefs, to devote the modest amount of manpower to this task.

April Action Item #4: Data Bank Manager **Quoidbach to write to the Co-Chiefs of scheduled legs**, reporting the sense of SSP discussion and enclosing the appropriate section of the draft minutes. Done.

Srivastava requested that SSP watchdogs work with Dan Quoidback on this matter so that he does not end up drafting and writing all these letters alone.

April Action Item #5: **Watchdogs to write to the lead proponent** of all other programs discussed, reporting the sense of the SSP discussion and enclosing the relevant section of the minutes. A copy of these letters to be sent to the ODP Data Bank. These letters can be sent by e-mail.

Srivastava reported that some watchdogs complied punctually, while others didn't write at all. To fulfil the mandate of SSP, it is it is the responsibility of SSP watchdogs to provide feedback to proponents. A copy of the letter should also be sent to the DB.

April Action Item #6: SSP advises the **Data Bank to thank JOI for making additional funds available** to help the Data Bank move towards a more digital operation. In addition the Data Bank should communicate to JOI that SSP feels the funds will have more impact if used to better manage the existing paper data, and better handle navigation and swath bathymetric data, rather than to actively solicit new digital seismic records. The Data Bank should request permission to use the funds in this fashion, rather than for the purpose of handling digital seismic data as originally envisioned by JOI.

As directed by SSP, Quoidback reported to Dave Falvey at JOI. Falvey overruled SSP's recommendation and asked Quoidbach to resolve the matter. Subsequently, Quoidback obtained software from John Diebold of LDEO to permit displaying processed seismic files. Quoidback is putting together a system for archiving such data. Srivastava thanked JOI for making these funds available to DB.

1.3 Charge and procedures for this meeting (Srivastava)

SSP Chair Srivastava described the charge for this meeting: (1) to evaluate the site survey readiness of proposals that were highly ranked at the spring thematic panel meetings and are within the geographic area of operations for FY'97 defined at the April PCOM meeting; (2) to advise proponents of these proposals about data that they need to acquire and/or submit to the Data Bank in order to become contenders for FY'97 scheduling; (3) to evaluate the site survey readiness of legs scheduled for drilling; and (4) to assess any site survey issues arising from legs that were drilled since our last meeting. The main customer for the output of the SSP summer meeting is PCOM, who use the evaluations resulting from item (1) above as input into the process of creating the prospectus for FY'97 drilling; PCOM will create this Prospectus at their August meeting.

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

The question of timing of the April meeting and whether it should be non-US venue was discussed at length. The panel favoured at least one non-US venue per year and noted that the political considerations outweighed the advantages of always meeting at LDEO where the DB is located. It was decided to leave things as they are now; meeting outside US during Spring. Selective transportation of data can be made on a case by case basis.

1.4 Quantitative Classification of proposals (Srivastava)

In correspondence between Falvey, PCOM Chair Rob Kidd, and Srivastava prior to the July SSP meeting, the issue of a quantitative site survey readiness classification scheme was explored. After considerable discussion on the merits of two major scheme presented at the meeting, the following scheme, prepared by a subcommittee, was adopted. It was agreed that the dates FY97 and FY98 will change during subsequent meetings. The scheme is not only a device to inform PCOM but also a powerful tool to advise and push proponents. The global rankings as assigned by thematic panels will also be included in the table so that it will be possible to see the balance between good science and site readiness.

Site Survey Readiness Classification Scheme.

1. **Presently viable proposal for FY 97 drilling.**
   1A. All required data are in the data bank
   1B. A few required items are missing from the data bank, but data are believed to exist and to be readily available.

2. **Possibly viable proposal for FY 97 drilling; likely for FY 98**
   2A. Substantial items of required data are not in the data bank but are believed to exist and are likely to be available in time for consideration for FY 97 drilling schedule.

   2B. Substantial items of required data are not in the data bank, not believed to exist but could be available in time for consideration for FY 97 drilling if a **scheduled** site survey proceeds as planned.

   2C. Substantial items of required data are not in the data bank, not believed to exist but could be available in time for consideration for FY 97 drilling if a **proposed** site survey proceeds as planned.

3. **Unlikely for FY 97; possible for FY 98.**
   3A. Required data are not in the data bank, not believed to exist but are likely to be available in time for consideration for FY 98 drilling if a **scheduled** site survey proceeds as planned.

   3B. Required data are not in the data bank, not believed to exist but could be available in time for consideration for FY 98 drilling if a **proposed** site survey proceeds as planned.

4. **Impossible for FY 97:** Required data are not in the data bank and not believed to exist. Data could be available after FY 97 if a **proposed** site survey proceeds as planned.
5. **Impossible for FY 97:** Required data are not in the data bank and not believed to exist. A site survey needs to be conducted but is not proposed at this time.
6. **Not considered** because data in the Data Bank does not match present proposal; awaiting a new proposal.
7. **Not considered** because no data has been submitted to the data bank.

As the meeting progressed each proposal was placed into one of these categories. A table summarising these designations can be found in Appendix A.

1.5 New Watchdog assignments (Srivastava)

Srivastava outlined the process for watchdogging a proposal/leg for the benefit of new members. The summary of past and present SSP watchdog assignments on various proposals considered at this meeting are given in Appendix B.

2.0 REPORTS

2.1 JOI (Falvey).

Excom considered ODP relationships with other programs. They responded to a proposal from the Nansen Arctic Drilling Program (NAD) for ODP to provide NAD with an infrastructure of management, science advice and coordination, and a potential system of repositories and databases at cost. EXCOM endorsed the relevant parts of the proposal in principle, giving NAD the rudiments of an infrastructure which will allow them to obtain funding. The ball is now in NADs court. A meeting has already been scheduled in Iceland next year to develop mechanisms to obtain funding. NAD will seek funds from NSF to fund this meeting. Not all Nansen members are member of JOIDES and vice versa. In this action, ODP has taken a step forward to building an alliance with other geoscience programs, enabling ODP to achieve objectives not now possible due to operational and technological constraints.

A conflict of interest emerged at the 1995 April PCOM meeting. Subsequently JOI has modified the ODP Policy manual. Falvey urged SSP members to inform themselves on JOI's conflict of interest policies. Falvey instructed SSP to not only behave properly but also appear to behave properly. The difference between presentation of information and discussion was clarified. Thus, a proponent who is a member of SSP may answer questions after presentation of his/her data but cannot engage in any panel discussion. During panel discussion the proponent must leave the room.

EXCOM endorsed full implementation of JOI's second option for a revised public communications strategy, which was presented at EXCOM. They also endorsed introduction of project management within all aspects of the JOIDES structure.

Internationalization strategy: The National TAIWAN Universities is about to sign an MOU with the Aus-Can consortium to become a partner in ODP at a 1/6 level .

2.1 PCOM (Mountain)

Mountain reported back on SSP's request that P-CODE data become available on the J/R asap. Brian Taylor of PCOM expressed a willingness to assist JOIDES in this matter and to supply contacts to PCOM. He indicated that only three UNOLS vessels have P-CODE navigation and that it is on a trial basis. The response from PCOM is that while it is desirable for the J/R to have P-CODE navigation installed, "don't rock the boat".

There was no problem with data sets for drilled legs, including TAG. The problems at TAG were not related to inadequate data, but rather operational difficulties.

Falvey noted that strategic issues can be raised at BCOM and suggested that if the single channel seismic data from the J/R is not resolved satisfactorily, it is an item that can be potentially be pursued at BCOM .

Mountain reported that Saanich Inlet was attractive to PCOM. Their willingness, to include it in the FY 96 plan if SSP and PPSP requirements are met, demonstrates the ability of PCOM to respond quickly.

The issue of potential hazards from submarine cables was discussed. SSP notes that TAMU should be responsible. (for further discussion see item 3.2)

2.2 PPSP (Ball)

The efforts of SSP and the JOIDES Office have provided adequate lead time for safety reviews. Legs are scheduled through 1996 and chief scientists have been designated by ODP/TAMU for this drilling. Assuming that PCOM schedules drilling through 1997 at its December 1995 meeting, PPSP is comfortably positioned to conduct safety reviews.

At its September 1995 meeting, PPSP will review Legs 166 (Bahamas Transect) and 167 (California Margin). At its November 1995 meeting, PPSP will review the New Jersey Margin, Saanich Inlet, and Legs 168 (Juan de Fuca), 169 (Sedimented Ridges) and 170 (Costa Rica Accretionary Wedge).

2.3 JOIDES Office (Ellins)

The JOIDES Office received 25 proposals and 8 Letters of Intent for the July 1 deadline. One of these proposals, entitled the Caribbean Cretaceous Basalt Province, is numbered 480 and will replace the former Caribbean LIP proposal, numbered 411.

Since the last SSP meeting the J/R had completed two very successful port calls in Europe: one in Napoli, Italy and the other in Leith, Scotland. Ellins attended the second port call which coincided with the ODP EXCOM and Council meetings in Edinburgh, Scotland. In addition to EXCOM and ODP Council members, more than 1000 visitors toured the J/R in Leith. PCOM Chair Rob Kidd delivered a public lecture to a full lecture theatre at the National Museum in Edinburgh. There was significant media coverage associated with both port calls.

2.4 Data Bank (Quoidbach)

Since the April meeting the Data Bank received 21 data submissions containing 174 data items. In addition, the Data Bank prepared operations data packages for Legs 161 and 162, and is currently preparing for Leg 163.

A number of watchdog letters from the April meeting were not forwarded to the Data Bank. Dan Quoidbach requested that watchdogs be sure to send him the letters so that they can be added to the watchdog books and sent to the JOIDES Office.

Between the April and July meetings, the issue of the Data Bank handling digital seismic data was resolved. After

consultation with Dave Falvey, the Data Bank proceeded to implement a system of handling seismic data in SEG-Y format. The Data Bank obtained a SEG-Y to Postscript translation program, which allows manipulation of electronic images of data, rather than the SEG-Y files themselves. This will keep the Data Bank out of the processing business, while still providing electronic files which can be easily reproduced and can be delivered electronically.

Quoidbach noted that the Data Bank did not get its WWW server running in April, but that construction of a set of Web pages continues as time allows. The server will be announced on the SSP mailer as soon as it is ready.

The Data Bank has constructed an interface to some of the GMT mapping tools using HTML forms and CGI scripts. This should increase the user friendliness of the GMT tools and the Lamont MGG database, thus making it easier for both the Data Bank Staff and visitors to construct quick track charts. Testing of the interface continues and additional GMT tools will be added as time and budgets allow.

2.5 TAMU (Wallace)

ODP personnel changes: Jeff Fox took up the position as the new director of ODP/TAMU on July 1. There are two new staff scientists: Paul Wallace and Mitch Malone. TAMU is currently searching for a third staff scientist. The position of Director of Engineering Operations has not been filled as yet.

Wallace briefed SSP on the changes to the ODP publications department. ODP IR and SR volumes: A greater percentage of the Initial Results volume will be author-produced, requiring reduced editing of IR. Barrel sheets and core photos will be completed onshore and reduced to fit two sets per page. The length of both volumes will be shortened. The SR volume will be reduced in size and the amount of work that editors do will be reduced. Leg Prospectuses will be available on the WWW henceforth and paper copies will no longer be sent out.

Wallace also provided an update on the JANUS project. He indicated that ODP/TAMU has sufficient cost saving this fiscal year to permit purchase of the cryogenic magnetometer and pay for the ice-support vessel required for Leg 163.

Texas A & M has promised 3.2 million dollars for expanding the Gulf Coast Core Repository if TAMU is selected to continue as the ODP ship operator.

Wallace showed the JR ship staffing schedule and the ODP Operations schedule. The ODP Operations schedule includes Saanich Inlet, recognizing that this leg is contingent on PCOM's decision in August and the outcome of the Canadian Environmental review.

Wallace provided an Update on DCS. He showed a time line on the project, which is currently in phase 2, and noted that since there is no money in FY 95 or FY 96 budgets to cover the costs of continued development, PCOM will make a no-go decision or seeks funds for 96 to continue project at their Dec meeting. The project has been funded in FY 95 with funds carried forward from FY 94.

Two papers from ODP/TAMU were distributed; One described Life extensions options available for the JR and the second, written by Mike Storms, was on dynamically positioned platforms.

Srivastava queried why TAMU is so slow in conveying the selection of Co-chiefs to panel chairs and to the DB. Wallace will look into this.

2.6 NSF (Shor)

Field programs supported by NSF Ocean Drilling program FY 95 and FY 96 are indicated in Appendix C. The only proposals currently pending is related to site 735B. NSF expects 12 to 18 new proposals in August. Budget information for NSF is also attached. Note that the FY 96 budget information is what is requested, and not approved. In the present US fiscal climate, it is expected that the budget for FY96 will be similar to FY 95, or perhaps slightly less as NSF expects the budget to decline by 1%. This reduction will come out of research funds rather than education programs.

NSF has also put money into engineering development proposals.

3. SITE SURVEY IMPLICATIONS OF RECENTLY DRILLED LEGS

3.1 Leg 160: Eastern Mediterranean (Wallace)

According to the Staff Scientist, Carl Richter, the site survey package for Leg 160 was complete. Because many different site surveys and proposals had been merged together into one drilling leg, quality of the seismic data varied and a more homogenous data set would have been nice. Site surveys were necessary at each site to target small scale features or to ensure that the right location was being drilled. There were no problems overall, site surveys took up only a minimal amount of time. Further details are given in Appendix D.

3.2 Leg 161: Western Mediterranean (Wallace)

According to the Staff Scientist, Adam Klaus, the data package was fine with all materials necessary. Approximately 1.5 to 2 months before the cruise ODP/TAMU found several submarine cables, in addition to those which had already been

reported by the scientific proponents, that were deemed too close to two of the proposed sites. Originally proposed sites Alb-4B (Site 978) and Alb-3A (Site 979) were shifted slightly to maintain >1km distance from reported cable locations.

Other problems encountered during drilling included the following. Significantly expanding cores (due to gas) at Alboran sites (976-979) could not be avoided. Ship traffic was extremely busy at Site 976 (Alb-2). At Site 977 (Alb-4A) drilling was unable to penetrate through the latest Miocene channel fill sequence (conglomerate? overpressured?). Drilling was able to penetrate through a similar horizon at Site 978 (Alb-4B) because the site was not located in the center of a channel.

Both the paleoceanographic and tectonic objectives were achieved. In particular, continuous sedimentary sequences were obtained at each site by multiple offset holes, and sapropels were discovered for the first time in the westernmost Mediterranean. Coring at Site 976 (Alb-2) recovered a 267m thick sequence of continental metamorphic basement composed of schist, gneiss, migmatite, marble, and granite. A complete sequence of high-quality logs (FMS, BHTV, Quad-comb, Geochem) was also obtained in the basement. It was fortunate that work at this important site was so successful because it was the only site at which the tectonic objectives could be achieved.

The issue of potential hazards from submarine cables was extensively discussed and resulted in making the following recommendation for PCOM consideration.

> **SSP recommendation # 2 to PCOM, concerning the report of man-made seafloor hazards to PPSP: SSP requests that PCOM direct JOI to direct ODP/TAMU to report the results of its search for man-made seafloor hazards to PPSP during the final safety review of proposed sites.**

Explanatory Note:

SSP has been greatly concerned that seafloor hazards are not being located in enough time prior to a drilling Leg. In our earlier recommendation to PCOM (November 1994) we had recommended that location of these hazards (cables, dump sites, etc.) largely be a ODP/TAMU responsibility. At the same time we have been cautioning proponents of shallow water and continental margin drilling near populated areas that they must try to find out as much information about these as possible and as earlier on as possible, in order to locate their sites away from these hazards. It seems that this information is not compiled early enough in the program so that sites have to be moved after the PPSP review, a process which causes undue confusion. We cite the recent case in which about 1.5 to 2 months before Leg 161 (after safety review) ODP/TAMU found several submarine cables, in addition to those which had already been reported by scientific proponents, so that two of the sites located near them had to be moved farther away. It should not be assumed that proponents are aware of all sources that need to be consulted in making a thorough search; too much is at stake to leave this to potentially ill-informed proponents; however sincere and determined their efforts may be. SSP would like to see that ODP/TAMU is charged with the responsibility of reporting such man-made hazards at the final review of proposed sites by PPSP.

4. SITE SURVEY STATUS OF UPCOMING SCHEDULED LEGS

4.1 Leg 163: NARM Volcanic-II East Greenland transect

SSP Watchdog: Scrutton/Quoidbach
SSP Proponent: None, however Srivastava and Hinz were members of NARM-DPG
Target Types: B (Passive margin)

The Data Bank is currently preparing the data package for this Leg. SSP discussed again the issue of whether a hard rock guide base is needed for sites EG63-6 and EG66-1, although its position on this matter has not changed. We were informed by ODP/TAMU liaison, Paul Wallace, that a HRGB will be onboard J/R for its use during this cruise.

Concern over the possibility of the 66N transect being affected by sea ice has prompted the proponents to put forward a set of alternate sites to make up a transect at 64N, presumably with the same scientific objectives. Nine new alternate sites are proposed but they have not been submitted formally via the JOIDES Office and they have not been evaluated by a thematic panel. In effect, they have been treated as emergency alternate sites that would be requested from the drillship in the event of problems with approved sites. SSP was unhappy about considering these sites without the benefit of thematic panel comments and scientific objectives - a site survey evaluation of individual sites could not be made without a knowledge of the scientific objectives of individual sites. However, a set of good quality seismic profiles had been submitted to the Data Bank, in support of the new sites, showing sediment coverage for spudding in into basement using HRGB better than the earlier data did, but because none of the sites are on crossing seismic profiles they are not ideally positioned from SSP's point of view. The apparent lack of a navigation chart with shot point numbers annotated made locating the new sites difficult. Digital navigation had been submitted to the Data Bank, but due to computer problems, it could not be plotted in time for the SSP meeting.

PPSP would now have to evaluate the safety of the new alternate sites. It would also have to consider a revised

position for EG66-2A put forward by the proponents.

SSP Consensus #1. SSP requests the Co-Chief scientists of Leg 163 (SE greenland margin) to submit site summary forms for the new alternate sites so that we know if the new data images the earlier drilling objectives. It also asks the Co-Chief Scientists to consider whether the alternate sites could be positioned on crossing seismic lines.

4.2 Leg 164: Gas Hydrates
SSP Watchdog: Lykke-Andersen/Quoidbach
SSP Proponents: none
Target Type(s): A: paleoceanographic

SSP acknowledge receipt of updated Site Summary Forms, copy of side scan data and velocity information. SSP had requested the Co-Chiefs to generate some colour amplitude plots of some of the seismic lines in order to see the extent of BSR clearly. These are not essential for drilling purpose but would have been beneficial scientifically. SSP appreciates efforts of the Co-Chief Scientists of this Leg for supplying the required data. The entire data package is now complete.

SSP Consensus # 2. SSP appreciates the efforts made by the Co-Chief scientists of Leg 164 (Gas hydrate) in supplying almost all of the items as requested during their April meeting. In SSP opinion the data package can now be considered complete.

4.3 Leg 165: Caribbean Ocean History
SSP Watchdog: Diebold/Quoidbach
SSP Proponents: L. Peterson
Target Type: all sites type A: paleoceanography

At the July 1995 SSP meeting it was noted that while 3.5 kHz data, previously not present in the data bank, have been deposited, re-displayed plots of Droxler's high resolution SCS profiles, with a less severe AGC window, have not. In correspondence from early July, Droxler promised that these will be forthcoming but these have not yet been received. These modifications are needed in order to reliably map faint reflecting horizons which in the current displays are "swamped" by the effect of nearby strong reflectors in the AGC process.

SSP consensus # 3. The data set for scheduled Leg 165 (Caribbean ocean history) is nearly complete, and could serve as it is if necessary. It is highly desirable, however, that displays of Andre Droxler's R/V EWING SCS data with modified AGC parameters be deposited in the ODP Data Bank as soon as possible.

4.4 Leg 166: Bahamas Transect (412-add2)
SSP Watchdog: Acting: Enachescu/Quoidbach; Permanent: Sibuet
SSP Proponents: None
Target types: Fluid flow sites, target A: Paleoceanographic; Sea level sites, target B: Passive Margin

All required data are in the Data Bank.

Seismic data: Migrated MCS data for site positioning and regional correlation are in the Data Bank. Some seismic artifacts (e.g. busts, migration smiles, migrated dead traces) are still present in the data, but these do not impede interpretation of the crucial first 500 ms of the records. Reflectors are well imaged over the water bottom multiple. No seismically identifiable hazards show up near the proposed drilling locations. Overall, data quality is excellent.

Coring: Additional descriptions of seven more cores were provided, three of them in the vicinity of the proposed drilling sites.

SSP Consensus # 4 : SSP notes that all required and recommended data for Leg 166 (The Bahamas Transect) are now in the Data Bank and therefore the data package for this leg can now be considered complete.

4.5 Leg 167: California Margin (386,422,386)

SSP Watchdog: Flood/Quoidbach
SSP Proponents: Alternate Lyle
Target Type(s): A (paleoenvironment)

Survey data collected in May 1995 on R/V Ewing at 17 sites (along with alternates) were submitted along with a provisional plan for Leg 167. An overview of these data was presented by Mitch Lyle. These data are of high quality and satisfy the requirements for drilling the proposed sites. We recommend that seismic data in the vicinity of Site CA-1B be processed to enhance the BSR in this region and that a structural map for this part of the survey be created to allow potential safety problems to be evaluated. Other minor items were also discussed with the proponents. Final site selection and prioritization now needs to proceed so a safety package can be prepared. We note that the present Leg 167 plan does not include a return to Site 893 (Santa Barbara Basin), that only XCB recovery of oceanic basement is planned, and that a third APC is cited as a second priority at all priority 1 sites (although all priority 2 items are expected to be accomplished). The data package for this leg is rated 1A with all required items in the data library.

SSP Consensus # 5. All required data for Leg 167 (California margin) is in the data bank. These data are of high quality and satisfy the requirements for drilling the proposed sites. We recommend that seismic data in the vicinity of Site CA-1B be processed to enhance the BSR in this region and that a structural map for this part of the survey be created to allow potential safety problems to be evaluated. Final site selection and prioritization now needs to proceed so a safety package can be prepared.

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

SSP Watchdog: Permanent:Casey; Acting: Quoidbach
SSP Proponents: none
Target Types(s): E.and D. Open ocean environment (<400m and > 400 m sediment respectively) with additional requirements for high temperature environments.

No new data have been submitted since the April '95 SSP meeting. Email from Earl Davis advises that Alvin dives are planned around site PP-6 in August of '95, to be carried out by Mike Mottl and Geoff Wheat. The data from these dives will be sent to the Data Bank after the cruise (~August 20th). At the same time this cruise is taking place, Earl Davis will be at sea on another site survey cruise over the E. Juan de Fuca sites. There he will be collecting detailed seismic, heat flow and bathymetry data for final site selection. He will submit all of this data to the Data Bank hopefully before our Nov 1 deadline so that these can then be looked at our November meeting.

SSP Consensus # 6 : No new data have been supplied for Leg 168 (East Juan de Fuca Hydrothermal) since the Nov. 94 meeting. Additional data from this summer's site survey cruises should be submitted to the Data Bank as soon as is feasible. These should include copies of visual imagery from submersible dives at proposed drill sites where use of a hard rock guide base is envisioned (e.g., at site PP-6) together with seismic reflection and locations of final sites.

4.7 LEG 169: Sedimented Ridges II (SR II-Rev 3)

SSP Watchdog : Permanent: Casey; Acting: Srivastava/Quoidbach
SSP Proponents: None
Target Types: E Open Ocean environment (<400 m sediment) with additional requirements for high temperature environment.

Subsequent to our November 94 and April 95 meetings the CO-Chiefs were requested to deposit Gloria data from Escanaba Trough, any available submersible or ROV video/photographic imagery data from Middle Valley and an updated track map for the Middle Valley with the sites located on it. They were also requested to keep SSP informed of their plans to place markers at the drill sites both in the Escanaba Trough and in the Middle Valley. No data or response was received from them on these issues prior to our July meeting.

SSP has been most concerned for some time about locating the drill sites from JOIDES RESOLUTION during Leg 169. The sites are small in size and lie in some difficult terrain. For this reason SSP has been asking the chief proponent to place markers at these sites using a submersible or ROV. At our November 94 meeting concerns were expressed that it may be difficult to locate site BH6, on the hanging wall block of 856 Fault zone, accurately enough to drill into the fault zone as there is no surface expression of the fault, and thus no feature that can be detected from the drillship while

navigating relative to the acoustic beacon. The proponents were asked to address the feasibility of locating this site based on ship speed during seismic data collection, expected navigation accuracy, and the fact that only a few traces image the fault zone. To date SSP has not received any response to these concerns from the proponents.

Three cruises had been planned for 1995 and at least two completed. One, in the Middle Valley, Andrew Fisher's cruise to study detailed hydrogeology in the vicinity of the proposed sites in the Middle Valley, two, Mitch Lyle's cruise to the Escanaba Trough to collect high resolution seismic reflection data across the Escanaba Trough sites and three, Earl Davis's cruise to Middle Valley to map the fault zone at site 856. None of these cruises could be used to place markers. It is not known if the desired data were collected at all these sites. Copies of this data, if collected, should be deposited in the DB as soon as possible. It was learnt recently from Sandy Shor that another cruise, Susan Humphris's, was also planned for the Escanaba Trough where ROV was going to be used for placing markers at the drill sites. Unfortunately this cruise was not funded and therefore a strategy was sought (details supplied by Sandy Shor) by the chief proponent for collecting additional detailed bathymetry data across the drill sites in the Escanaba Trough using Ewing. This data was collected, to tie the existing bathymetry information near the drill sites based on loran-C navigation, with the bathymetry collected on the Ewing where more precise navigation is used, to ensure that drilling targets can easily be located from the drill ship which uses comparable navigation system to that of the Ewing. These data should be submitted to the Data Bank as soon as possible.

SSP is concerned about the drilling strategy which is to be followed during this Leg, considering that no provisions now exist for placing markers at the proposed drilled sites. Subsequent to the meeting, the Co-Chiefs were contacted to provide to PCOM and SSP details of their strategy to locate the proposed sites during this Leg.

SSP Consensus # 7: Site survey status for Leg 169 (Sedimented ridges II) remains unchanged since the April meeting. The Co-Chiefs are reminded that they should deposit the requested side scan sonar data from the Escanaba Trough and ROV video/photographic data, together with a track map with location of sites plotted from the Middle Valley with the DB as soon as possible. If any additional seismic reflection and bathymetry data have been collected across the proposed sites, these should also be deposited with the DB before the November 1 deadline. SSP remains concerned that no visual markers could be placed at the proposed sites for this Leg so far in spite of repeated suggestions to the proponents.

4.8 Leg 170: Costa Rica Accretionary Wedge (400-Rev2)

SSP Watchdog: Tokuyama/Quoidbach
SSP Proponents: none
Target Type(s): C: Active margin

At our last meeting, SSP noted this proposal to have a fairly complete geophysical data package with the exception of piston/gravity cores and visual data sets. Core data were requested for re-entry sites. The visual data such as photographs and video tapes obtained by the recent Alvin dives are very useful to understand fluid venting.
The ODP Data Bank has received a report entitled "Sediment cores on the Costa Rica accretionary prism (Atlantis II cruise 131-10): pore water study" and 4 video tapes obtained by Alvin dives on April 15th '95. The report mainly includes pore water chemical change versus core depth with brief information on physical property and visual core descriptions. The data package for this Leg is, therefore, complete from SSP points of view. We appreciate a great efforts of proponents for supplying this data

SSP Consensus # 8: Site survey data set for Leg 170 (Costa Rica accretionary wedge) is now complete for the structural and fluid objectives.

5. POTENTIAL FUTURE DRILLING: SGPP

5.1 Saanich Inlet (473; LOI35)

SSP Watchdog: Permanent: Casey; Acting: Lyle
SSP Proponents: none
Target Type(s): Paleo-environment - shallow water depths ~200m, APC

A proposal for 2 APC holes penetrating a holocene sediment section approximately 100 m thick(SI-01B and

SI-02B) was received from the JOIDES office and was reviewed at the July 1995 SSP panel meeting. A site survey cruise was undertaken by the proponents resulting in selection of new sites. The new sites are now located at or below 200 m water depth and should not need to conform to shallow water hazard survey conditions. The proposed drilling objectives are to develop a high resolution holocene paleoclimate record and to study sediment diagenesis. New SCS data (June 1995) have been received at the data bank with navigation. The proponents have also submitted piston core descriptions from Saanich Inlet. Ancillary data -- hydrographic charts, data about wind conditions, tides, and currents -- have also been provided.

The SCS data appear adequate to locate the two sites. The panel noted that SI-02B appears to pass through a slump interval, and that some of the sedimentary units at SI-02B pinch out before SI-01B is reached.

The new piston core data - descriptions of 8 cores between 4 and 20 m long taken along the axis of Saanich inlet - are adequate to define the surface sediment regime at both sites. Data on wind and currents appears adequate.

Missing data: 3.5 khz or other subbottom profiling data have not yet been submitted to the data bank, but should exist. This data will be needed for final site location, since it should penetrate half or more of the proposed section to be drilled. The proponents should submit this data as soon as possible.

Hazards: Critical data about manmade hazards should be located as soon as possible. The submitted hydrographic chart shows a cable passage near the location of SI-01B. The location of this cable should be identified carefully so that it can be avoided. Site SI-02B is located in an area marked on the chart as a "firing and practice area". More information is needed to ascertain whether a hazard exists at SI-02B before drilling.

Site survey readiness classification: 1B

SSP Consensus # 9. With the exception of 3.5kHz data the required single channel data for Saanich Inlet (proposal 473) is now in the Data Bank. A set of new sites have been selected which lie in water depths greater than 200m and thus the Leg does not require shallow water hazard site survey data. One of these sites , however, lies close to a region which is designated as "firing and practice area" on the map supplied. This should be investigated further if a hazard exist there. Critical data about manmade hazards for all sites should be located as soon as possible and the proponents be in touch with TAMU about it.

5.2 New Jersey shelf (348)

SSP Watchdog: Flood
SSP Proponents: PCOM liaison Mountain
Target Type(s): all Sites A (Paleoenvironment)

No new data were deposited in the data bank since the April meeting; however, seismic data appropriate for assessing shallow water surveys (< 200 m) were collected in early July, 1995. Greg Mountain gave a presentation, demonstrating data coverage and quality and noted that preliminary analysis of shipboard data showed no obvious problems. Processed and analyzed versions of these data are to be presented to PPSP in mid-November, and data to be submitted to the data bank by November 1, 1995. The new seismic data will also allow the anticipated relocation of site MAT-13 in deeper water on the slope. Side-scan sonar data are also required for the shallow water sites, and these data are scheduled to be collected in spring, 1996, in time for a final safety review.

Site survey readiness classification: 2B

SSP Consensus # 10: Newly collected seismic data will substantially fulfil the needs of a shallow water hazards survey for drilling on the New Jersey Shelf (proposal 348). Additional needed side-scan sonar data will be collected in spring 1996.The proponents are reminded to deposit the site data with the DB before November 1 dead line.

5.3 Great Australian Bight (367)

SSP Watchdog: Enachescu
SSP Proponent: none
Target Type(s): B (Passive margin)

This proposal concerns the drilling of a transect across the largest cool-water carbonate shelf slope existing on Earth, located off Australia. The transect will investigate the carbonate rich passive margin, paleoceanography of the

Southern Ocean, sea-level history, circulation patterns and parameters of deposition in cool water environment. Twelve sites are selected and documented in the proposal. All of these sites are judged to be of target type B (passive margin). Industrial migrated MCS data has been supplied to the DB during spring of 1995 and a lot more of industry data has been available to the proponents. All sites have locations on good quality MCS, a few have intersecting lines.

The January 1995 revised proposal contains significant improvement over the older text and appendices. The program is well documented and has advanced ranking. It is rated within the top 8 proposals by OHP and SGPP. However, no new data has been provided since the April meeting. From contacts with the proponents, it is understood that a winter 1995 cruise is scheduled during which, all of the remaining required data will be collected.

Better seismic velocity control is necessary for all sites. The panel requires reflection and refraction velocities obtained in the area to substantiate the velocity model. A depth converted composite section or a regional geological cross-section in depth may better represent the general location of the drilling sites.

Drilling in water depths of 42 to 54 m (sites GAB 10 to 12) is not feasible with *Joides Resolution*. Similarly drilling in water depths less than 200 m (e.g., site 9) requires strict guidelines for site survey requirements (Shallow Water Hazard Survey; see JOIDES Journal October 1994). The proponents are, therefore, advised to relocate all the sites situated in water depths of < 200m or plan to collect all required data to meet the guidelines. A detail guideline list was provided to the proponents. It is understood that the final locations of these sites will be decided by the proponents during a fall meeting with TAMU.

Other suggestions which will benefit this proposal include acquisition of heat flow data (new or existing) and locations of most sites at intersecting lines.

Site survey readiness classification: 2B

SSP Consensus # 11: Proposal 367 (Great Australian Bight Carbonate) should be revised where all sites located in water depths less than 200 m need to be either shifted to deeper water depths or meet Shallow Water Hazards guidelines. A site survey cruise to acquire pertinent data is planned to be carried out, during the northern winter of 1995/1996 by the proponents. This data must be supplied to the Data Bank as soon as possible. The proposal needs to be reviewed once all this new data together with revisions of site locations are submitted to the Data Bank.

6. POTENTIAL FUTURE DRILLING: OHP

6.1 Benguela Current (354add3, 354add4)

SSP Watchdog: Permanent: Paull; Acting: Lyle
SSP Proponent: none
Target Type(s): A (Paleoenvironment)

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

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

The bulk of the data is at the data bank. No new data has arrived since the last SSP meeting (April 1995). At the April 1995 meeting SSP noted that the data set for site SCB1, located on MCS line AM-54/Texas University is still insufficient. Therefore SSP recommends to acquire high resolution Parasound and SCS data along crossing lines at the proposed sites SCB1 and NCB2 during the forthcoming METEOR cruise, scheduled for January 1996. Further, SSP recommends to proponents to investigate the occurrence of man-made seafloor hazards including the position of submarine cables.

Site survey readiness classification: 2B

SSP Consensus # 12: Most required and recommended data in support of the Benguela Current

proposal (354add4) are in the data bank, and SSP appreciates the efforts made by the proponents in responding to its concerns. SSP urges the proponents to acquire additional high resolution Parasound seismic data along crossing lines at the proposed sites NCB2 and SCB1 during the forthcoming METEOR cruise scheduled for January 1996.

6.2 Southern Atlantic paleoceanographic transect (464)
SSP Watchdog: Permanent: Peterson; Acting: Flood
SSP Proponents: Diebold involved in the scheduled site survey cruise.
Target Type(s): all sites A (Paleoenvironment)

Digital navigation data were received into the data bank following our April meeting, but no navigation plots could be made before the meeting. Since navigation plots were not available, no further discussions were undertaken related to data availability. We received a letter from Rainer Gersonde stating that existing Parasound and Hydrosweep data are being assembled for the proposed sites. We were also advised that a cruise on R/V Thomas G. Thompson was funded and scheduled for early 1996, to collect the data required for these sites. A site survey proposal has also been approved for the R/V Sonne, but has not been scheduled.

As noted previously, type A (generally shallow paleoenvironment) sites have somewhat different requirements than type D or type G sites. Survey plans should ensure that appropriate data is collected to meet site objectives. However, we encourage that existing data continue to be submitted to the data bank to allow for continuing reassessment of data needs for this study.

Site survey readiness classification: 2B

SSP Consensus # 13: One site survey cruise is scheduled for early 1996 to provide required data for proposed sites for South Atlantic paleoceanographic transect proposal (464)and a second cruise is expected but not yet scheduled. SSP encourages proponents to continue to assemble and submit already existing survey data to the ODP Data Bank in as timely a fashion as possible.

6.3 NW Atlantic Sediment Drifts: Neogene Paleoceanography (404-Rev)
SSP Watchdog: Lykke-Andersen
SSP Proponents: Flood
Target Type: all sites type A: paleoceanography

Proponent Keigwin presented a summary of the science objectives and an overview of the relevant data in the Data Bank. He showed several items recently deposited that had been requested by SSP, including: 1) a working-scale map of shiptracks in the vicinity of BER-1 and BER-1A; 2) Hudson-89 3.5 kHz profiles across and in the vicinity of these latter sites, annotated with relevant scale lines and proposed site locations; and 3) a working-scale map of Deep-Tow, Kn140 and GLORIA shiptracks in the vicinity of BBOR-1 and -1A, B, and C. The latter constitute a new strategy for drilling a suite of sites across a well-mapped mudwave on the flank of the Bahama Outer Ridge.

Two issues remain of concern to SSP; both relate to site locations and their proximity to annotated seismic data in the Data Bank. First, the proponent cites the uniformity of seafloor topography and Quaternary depositional processes as justification for locating BER-1 at the site of piston core GPC5 (with an accompanying 3.5 kHz record), though this is roughly 0.5 nmi from the nearest seismic profile. Considering this regional simplicity, SSP asks the proponent to consider placing the drill site on the seismic profile, as these data provide acoustic images to the depth of the intended TD (300 mbsf), while the 3.5 Khz data do not.

The situation is similar for sites BBOR-1 through -9 and CS-1 and -3. The new working scale map of the Blake-Bahama Outer Ridge area shows that while the proposed sites are on excellent 3.5 kHz profiles (mostly from Kn140), they are frequently not located on seismic profiles. SSP reiterates the desirability of locating sites on seismic lines: however good their resolution, 3.5 Khz records rarely penetrate to more than 100 mbsf, and target depths at each of the proposed BBOR and CS sites are from 100 to 200 mbsf. Consequently, the regional context and reflector correlations between the sites as proposed will necessarily be limited.

The second issue of concern to SSP is the lack of clearly annotated profiles deposited in the Data Bank at sites BBOR-4 and -4A. While the proponent has identified the nearby MCS Line 87 from C2102, an annotated copy has not been submitted. A number of required items, though existing, are not yet deposited with the Data Bank.

Site survey readiness classification: 1B

SSP Consensus # 14: Working-scale maps and annotated 3.5 kHz data for all proposed sites for NW Atlantic Sediment Drift proposal (404) are now in the Data Bank. While each site is located on very good to excellent 3.5 kHz profiles, proposed target depths in several cases exceed the acoustic penetration of these data. This would pose no problem if it were not that several sites are at a significant distance (e.g. 1.75, 2.0, 2.5, and 7.0 nmi) from available seismic profiles. SSP notes with concern that this will limit the ability to: 1) confirm that each site is optimally located for the depth of proposed drilling; 2) construct acoustic correlations between the sediments of each site; and 3) place drilling results into a regional stratigraphic context. SSP reminds the proponent that the existence of seismic data, even in the nearby Lamont-Doherty archives, does not by itself constitute deposit with the Data Bank. Until useful-scale copies of a profile at or near by sites BBOR-4 and -4A arrive at the Data Bank with the necessary annotations of scales and site location, this data set is incomplete.

6.4 Blake Plateau and Blake Nose Paleogene (462)

SSP Watchdog: Lykke-Andersen
SSP Proponents: none
Target type: both A: paleoceanography and B: passive margin

Sound velocity data, as requested by SSP for the Blake Nose transect, have now been deposited. SSP understands there is no firm evidence -- other than observations at DSDP Site 390 -- about the occurrence and nature of superficial phosphorite/manganese pavement in the area of proposed drilling. SSP agrees with the proponents that washing through the pavement, should it be present, will be an operational issue only, and will not detract from the scientific objectives. SSP appreciates the proponent's clarifying the problems related to the stratigraphic interpretation of line TD-5 UV.

Site survey readiness classification: 1A

SSP Consensus # 15: The data set for Blake Nose proposal (462) is now complete.

6.5 SE Pacific paleoceanography (465)

SSP Watchdog: Permanent: Peterson; Acting: Tokuyama
SSP Proponents: None
Target Type(s): all Sites A (Paleoenvironment)

The proposal is related to the dynamics of mid-depth and deep water-mass hydrography and chemistry, the history of a major eastern boundary current system, paleoproductivity, and tectonic-climate connections.

At our last meeting SSP noted that the SE Pacific is poorly surveyed and the majority of sites cannot be adequately located with existing data. So, SSP recommended the proponents to make efforts to search for existing data in the proposed region and continue to propose a site survey cruise to NSF/ODP.

ODP Data Bank has not received any essential data for target type A so far. We advice the proponents to continue their efforts to search for existing data and to revise and resubmit their previous proposal for FY 1997 in order to rise the SSP ranking system. Also we recommend the proponents to contact Karl Hinz and Angelo Camerlenghi about the possibility of collecting required data on German and Italian research vessels conducting geophysical surveys off Chile.

Site survey readiness classification: 4

SSP Consensus # 16: Site survey data are currently inadequate for specific site selection for SE Pacific Paleoceanography (465). We encourage proponents to continue their efforts to locate and compile available site survey data from the region, and to submit relevant data to the Data Bank in order to rise the rank of site survey readiness. SSP also recommends the proponents to continue their efforts in procuring funds for collection of data at the chosen sites.

7. POTENTIAL FUTURE DRILLING: LITHP

7.1 Return to 735B, AII Fracture Zone (300-Add2)

SSP Watchdog: Permanent: Casey; Acting: Scrutton
SSP Proponents: none

Target Type(s): Bare Rock Drilling

This is a two-leg proposal; deepening of hole 735B and a five-hole offset drilling transect. An Addendum 2 was submitted in July '95. One of the new objectives is to distinguish between a shallow and a "deep" Moho in view of the "ambiguous" results of the recent Cambridge University seismic cruise. This ambiguity emphasises SSP concern expressed in the past (e.g. minutes July 93) that the proposal lacks regional geological and geophysical data in the vicinity of the proposed drilling, to ensure that the scientific objectives will be fully met by drilling a transect of offset holes in this region.

New data is anticipated in the Data Bank from the Cambridge cruise, but the only data that are likely to be directly relevant to the selection of drill sites are swath bathymetry and poor quality 3.5kHz profiles. However, it is possible that 8 channel seismic profiles will show reflectors in the oceanic basement and the wide-angle seismic data will provide valuable regional information.

A recent site survey proposal to NSF has not yet been evaluated. A parallel Canadian proposal is under consideration at the NSERC. It was noted that such proposals would be a costly exercise if only bottom photographs are obtained as required for the bare rock drilling sites. It was also noted that, although poor quality as far as navigation is concerned, a video tape of the drillsite area from Leg 118 already exists in the Data Bank.

The two legs of drilling as proposed may be divided into a first leg to deepen hole 735B and a second leg to drill the offset sites. Reentry at site 735B is ready to go as far as SSP is concerned. The offset sites still require an evaluation of the seabed character for bare rock guidebase deployment. It could be argued that by accepting the Leg 118 video as site survey data of adequate quality a costly site survey cruise is not necessary. Shor pointed out that the cost of collecting such site survey data far exceeds the cost of transporting a HRGB.

SSP reiterated its position that it feels collection of video or photographic imagery for offset drilling as essential, considering the problems encountered where the HRGB has been used recently. If a problem is encountered in deepening 735B then the only choice will be to treat offset sites C,D,E and F as alternate sites. In the absence of any site survey data at these alternate sites, SSP would not favour bringing the drill ship to this remote area until the supporting data were in hand. However, for proposal 300 it pointed out the option, mentioned in April 95 consensus, that the proponents may formulate arguments to the satisfaction of ODP/TAMU that this visual data is not needed for the offset sites based on existing data and previous drilling in the region.

Site survey readiness classification: By considering separate drilling legs it is possible to rank this proposal as 1A for deepening 735B and the offset drilling as 2C, with the suggestion that the proponents discuss the needs in practice of the offset drilling with ODP/TAMU.

> **SSP Consensus # 17: SSP reiterates its consensus of April '95, that the required data for proposal 300 (Return to site 735B) is now available in order to deepen Site 735B. However, it recommends that continued efforts be made to acquire video or photographic imagery for offset drill sites. In both cases it is advised that the proponents should be in touch with ODP/TAMU (Dr. Jay Miller) concerning the use of the HRGB in this proposal. Additional data from the Cambridge experiment should be deposited with the data banks before November 1 deadline.**

7.2 Caribbean Cretaceous basalt province (411, 415-rev, 434,480)
SSP Watchdog: Permanent: Hinz; Acting: Scrutton
SSP Proponent: Diebold
Target type(s): D (Ocean Crust with >400m sediments)

A new proposal, written in the light of PCOM comments and *Ewing* Feb/Mar cruise results, was submitted for July 1 deadline. SSP considered it without the benefit of thematic panel review but received a presentation on the new *Ewing* data from John Diebold.

Four primary sites, VB1, BR1, BR2, S6, and two alternative sites, A1, C1, are planned in order to document the spatial and temporal extent and the petrology of the basalt province and to establish sedimentary environments above the basalt. Primary sites VB1, BR1 and BR2 are all new sites on *Ewing* profiles with MCS, 3.5kHz and Hydrosweep data. BR1 and BR2 are an offset pair of sites on the west, faulted flank of the Beata Ridge, intended to sample basalt at different stratigraphic levels in the basalt in the footwall fault block. Unfortunately, the existing data cannot establish whether there is sediment cover at the sites or bare rock, so a decision on this question may have to await results of a French *Nautile* cruise to the fault scarp in early 1996 in which some of the proponents are participating. The proponents are urged to make the most of this cruise to collect site survey data appropriate to bare rock sites should BR1 and BR2

turn out to require drilling into bare rock.

VB1 is a very deep hole (1800m sed. + 200m basement, reaching nearly 7000m below sea level in total) and will require accurate time to depth conversion of the MCS data. High quality velocity information should therefore be a requirement for site survey purposes. It will also be a re-entry site for which information from cores on seabed character is required.

Site S6 is inherited from Proposal 411, as are A1 and C1. For these sites, the proponents should ensure that the relevant ocean crust site survey data are all in the Data Bank in accordance with SSP comments of November 1994.

Site survey readiness classification: In view of the fact that the status of sites BR1 and BR2 is uncertain, but should be clarified after the French *Nautile* cruise, they are categorised as 2B. All other sites are in the 2A category. Overall, the site survey category of this proposal is 2B, but with the success of the *Nautile* cruise in early 1996 and the supply to the Data Bank of existing data when it is fully processed there is every chance that the proposal will be ready for drilling in 1997.

SSP Consensus # 18. There are still required data types to be submitted to the Data Bank for sites VB1, S6, A1 and C1, for the Caribbean Cretaceous Basalt Province proposal (411; 480) but there is every likelihood that these will be forthcoming. The target type of BR1 and BR2 remains to be established, but once it is, it seems likely that the required site survey data will become available. Overall, this proposal is categorised as a possibly viable candidate for 1997 drilling.

7.3 Kerguelen Plateau and Broken Ridge: age and evolution (457-rev)
SSP Watchdog: Permanent: Hinz; Acting: Tokuyama
SSP Proponent: None
Target Type(s): D (Ocean Crust with >400m sed.)

At the last meeting, SSP had mentioned that 1) in spite of a great amount of data submitted for previous ODP legs, 119& 120, to the ODP Data Bank, the revised proposal (457-rev) lacks additional geophysical data for the region ; 2) site KIP-18A is judged as target types H, so swath bathymetric data and photography or video data are required; 3) new geophysical data obtained by recent French cruises have not been deposited in the ODP Data Bank, and 4) the proponents should prioritize their sites and deposit all required data to the DB.

The proponents have since submitted a revised proposal (457-rev1). The new proposal has changed the total number of sites. However, the number of sites still remains too ambitious. By keeping the same designation for a few of the sites and changing their locations, has created some confusion. The proposal includes a seismic reflection line for illustration, but this nor any other new geophysical data has been deposited with the DB.

From the revised-revised proposals and from the existing data in the DB, it is concluded that the data sets for several of the sites are far from complete. SSP would like to see one track chart showing the location of the sites. They must also provide detailed documentation on site location so that they can be properly located on the existing data in the DB. In addition they must supply new data to the DB. SSP recommends the proponents to submit new data set required for Target Types D and H before Nov.1st.

Site survey readiness classification: 2A

SSP Consensus #19: SSP reiterates its recommendation to the proponents of Kerguelen Plateau proposal (457-rev1) that though most of the required data for this proposal can be assembled from the existing data not only what exist in the data bank but elsewhere, they still need to submit some additional data at some of the sites. They should provide copies of the new data to ODP Data Bank before Nov. 1st together with further documentation on the sites so that these can be located on the existing data at the DB. They must also resolve the confusion of site names which has arisen. The excessive amount of total drilling time and lack of adequate data at some of the sites are very likely to require elimination of several sites from the present very ambitious 18 site drilling plan.

7.4 Australia-Antarctic Discordance (426)
SSP Watchdog: Permanent watchdog: Toomey, Acting watchdog: Enachescu
SSP Proponent: SSP/NSF liaison Shor has been involved in site surveys for this proposal.

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

This proposal deals with geochemical mapping and accordingly, geophysical data are to be collected only for site survey purpose. Dredging at the approximate sites was done during a spring cruise but no information was provided to the DB. A site survey is funded and planned for early 1996.

Site survey readiness classification: 2B

SSP Consensus # 20 : No data are in the DB in support of the Australia-Antarctic Discordance proposal (426). A site survey is funded and planned for early 1996. SSP would like to reiterate their earlier suggestion to the proponents that sufficient good quality seismic data should be collected on the planned cruise to accurately define the depth to basement plus magnetic anomaly data of sufficient quality to lay out an array of holes tied to specific flowlines and isochrons.

7.5 Nicaragua convergent margins (471)
SSP Watchdog: Scrutton
SSP Proponent: None
Target Type(s): C for all sites in 471.

MCS profile NIC-1, on which all three proposed sites are located, has been submitted to the Data Bank in migrated form. It is of very good quality and suggests that the assembly of a site survey data package for the Nicaragua margin would be possible. Unfortunately, no other site survey data appropriate to the Active Margin guidelines are available at present and a proposal to conduct a site survey cruise has recently been unsuccessful. At this time it is not possible for this proposal to be scheduled for drilling.

Site survey readiness classification: 5

SSP Consensus # 21: Required data for Nicaragua Mass Balance proposal (471) are not in the Data Bank and not believed to exist. A site survey proposed earlier has been unsuccessful in getting funded and no other cruise is proposed at this time.

8. POTENTIAL FUTURE DRILLING: TECP

8.1 West Woodlark Basin (447-rev)
SSP Watchdog: Enachescu
SSP Proponent: none
Target Type(s): Sites ACE-1A,2A,4A,5A: B (passive margin); Site ACE-3A F (barerock)

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

The proposal has now an advanced degree of maturity and a substantial amount of data has been deposited in the Data Bank since the spring 95 meeting when this proposal was discussed in detail. All proposed sites are feasible and strongly documented. New data include: navigation, swath bathymetry, current information, 3.5 Hz sub-bottom profiler and single channel seismic. It is understood that additional information will be collected during the funded *Ewing* cruise (Oct. 1995), when MCS profiles including intersecting lines are to be recorded.

A few recommendations are reiterated resulting from the July meeting:

- Accurate seismic velocity information is necessary for all passive margin sites. A depth converted seismic section (e.g., 1218) or a scaled geological cross-section would better present the location of the drilling sites.
- We acknowledge that Site 3A identified as barerock type, depending on its final position, may drill between 20 and 580 m of sediment. The location clearly appears sedimented. The same feeling has

been echoed by thematic panels. However, the high velocities suggested by the 3.5 Hz data and the character of the reflections on the MCS data over the Moresby Seamount suggest the presence of older sediments or metasediments. Dr. Taylor suggests that 3.5 kHz data over the Seamount illustrate hard bottom return and therefore the internal layering seen on seismic lines are not caused by, unconsolidated sediments. The panel still recommend the acquisition and interpretation of Video or photographic data with accurate navigation and of a core or dredge from the seamount , in order to clarify the shape and the nature of this site and better document the scientific rational of the proposal. Some of these concerns may be addressed during the EWING cruise or a funded Aus-Can cruise during the fall of 1995. Though new water current information has been provided, it is advised that current information must be obtained specifically for the 3A site, where the use of HRGB may become necessary.

The following additional suggestions are made by the panel:

- A location on the Western flank of the seamount may be scientifically important for the validation of the detachment model.
- Site 1A will drill through an erosional channel and an older sedimentary wedge. Moving it to the east will avoid this and have the advantage of intersecting a thicker sequence of rift sediments in the downthrown block.
- Safety panel may have some problems with site 5A which appears to intersect an area with a gas plume and mound at the water bottom. This may be a processing artifact on the newly processed data, but must be looked at on field records and reprocessed lines before committing drilling at this location. It is recommended that the proponents analyze this site carefully.

Site survey readiness classification: 2B

SSP Consensus # 22 : SSP acknowledges that a nearly comprehensive data package supporting drilling in the West Woodlark Basin (447-rev) now exists in the Data Bank. A few items like cross lines are yet to be supplied and it is understood that they will be collected during the October EWING cruise. Seismic lines together with visual and coring data for site 3A, on top of the seamount, will complete the data package and answer all SSP concerns. Site 3A may need a discussion with proponents and a PPSP preview at a future meeting.

8.2 NARM Nonvolcanic: Ocean-Continent Transition off west Iberia (461-Add)
SSP Watchdog: Diebold
SSP Proponents: none
Target type: B: passive margin

Since our April meeting no new data has been obtained at the Data Bank. However a revision of the proposal has been received outlining their drilling strategy. A cruise is underway to collect additional data. The results from analysis of sample from ODP Site 900 from Leg 149 is awaited by SSP.

Site survey readiness classification: 2B

SSP Consensus # 23. No new data has been submitted to the Data Bank since our April '95 meeting for Return to Iberia proposal (461) though most of the required data is in the data bank. The previously mentioned Discovery cruise is currently underway, and it is anticipated that the resulting data will provide additional [but not required] 3-D coverage of several sites. In addition, we note that an NSF funded survey in the area is now scheduled.

8.2 Romanche Fracture Zone (468)
SSP Watchdog: Permanent: Toomey; Acting: Diebold
SSP Proponents: None
Target Type(s): All sites: G (Topographically elevated feature)

Since no data have yet been entered in the database, the panel could not formally consider this proposal. An informal presentation was made by one of the proponents, Enrico Bonatti, who promises that a data package will be submitted before November 1 deadline. There seems to be a complete set of high quality MCS and bathymetric data

available, and hopefully this proposal can be given an improved rating by SSP in November '95. Should a HRGB is recommended to be used at one of the prime sites, photographic and video data will be required at this site.

Site survey readiness classification: At present SSP ranks this proposal as 7 based on absence of any data in the data bank and 2A taking into consideration that significant data already exist which will be available by November 1 meeting.

> **SSP Consensus # 24: SSP April consensus remains unchanged that although no data package has yet been deposited for the new Romanche Fracture Zone (468) proposal, it appears from the proposal that quite a bit of pertinent data exists around the proposed sites. For sites ROM-1a and ROM-2a, on limestone caps, the proponents need to clarify their spud-in strategy, and provide visual data if a hard rock guidebase is needed. Site ROM-3a, proposed for 1000m penetration into a thick pile of deformed sediments of unknown origin, could present safety problems.**

8.3 Peru Margin, Gas Hydrate and Vertical Tectonism (355-Rev5)
SSP Watchdog: Diebold
SSP Proponents: None
Target Types : 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 Bank for drilling ODP Leg 112. In addition, newly processed MCS lines have been submitted and improve substantially the seismic image of the margin where the drilling transect is proposed.
Given the strong objectives on fluid circulation, and gas hydrates, the panel recommends that the proponents evaluate and eventually submit heat flow data in addition to the old data in support of Leg 112. Furthermore, by merging old and new seismic data, an effort should be made to locate sites on crossing lines.

High quality MCS lines, along which the proposed sites are located, have been deposited in the DB. However, coincident 3.5 KHz and swath bathymetry data have not. The ODP leg 112 data are available in the data base, but the grid formed by them and the new lines is too loose to allow a 3-D characterization of the BSR. While the two lines along which the sites are located [CDP 1, 1018] cross obliquely, and may thus provide sufficient 3-D information on the nature of the BSR, it is difficult to compare them, since they seem to be plotted at different scales, and the sites have not been annotated on them. An additional problem is that the three sites [P1, P2, P3] which are located on CDP-1 are shown in the proposal on depth migrated plots not present in the data base.

Site survey readiness classification: 5

> **SSP Consensus # 25. The existing data set supporting ODP leg 112 is present in the data bank, and partially fulfils 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 and it is difficult, if not impossible, to locate the projections of the sites on both lines. A large scale navigation plot of lines 1018 and CDP-1 should be made available, with CDP numbers and site locations annotated, as should 3.5 kHz and swath bathymetry data, if they exist. A previous consensus, that additional heat flow interpretations and/or data be submitted to the data bank has not yet been acted upon.**

9. OTHER BUSINESS

9.1 ODP Long Range Plan (Srivastava, Ellins)

Ellins, liaison person from JOIDES, briefly outlined the objectives of LRP and when it is supposed to be published. It was presented to EXCOM recently and received some suggestions for modification. The document has now been revised and will be discussed at the forthcoming PCOM meeting.

9.2 Feedback to proponents

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

Watchdog letters should not be sent out until PCOM decides on the area of operation for 1997, which will happen the first week of September 1995. Proponents of the proposals which are included in the operation should be reminded of the November 1 deadline for submitting data items to the Data Bank for consideration at SSP November meeting.

SSP Action Item #1: Srivastava to request PCOM Chair Rob Kidd if JOIDES Office liaison Ellins could notify SSP members by email of which programs were put in the FY '97 Prospectus and SSP Chair on items relevant to SSP, resulting from the August PCOM meeting.

SSP Action Item #2: Data Bank Manager Quoidbach to write to the Co-Chiefs of scheduled legs, reporting the sense of SSP discussion and enclosing the appropriate section of the draft minutes.

SSP Action Item #3: Watchdogs to write to the lead proponent of all other programs discussed, reporting the sense of the SSP discussion and enclosing the relevant section of the minutes. A copy of these letters to be sent to the ODP Data Bank. These letters can be sent by e-mail.

9.3 Membership in the panel and attendance

The question of the increase in absentees at the SSP meeting was brought to the attention of the panel by SSP Chair Srivastava and suggestions were sought to remedy it. Of the several options available, like decreasing the number of meetings, making meetings more attractive to the members by spending much more time in looking at the data and having a group of alternate members from which to invite appropriate persons for each meeting, the panel favoured having alternate members to each appointed member. These alternates will then be asked by the member, not able to attend, to substitute for him/her for that particular meeting. Formal approval for appointment of alternate members will have to be sought from PCOM.

SSP Action Item #4: Srivastava to poll absent members on their opinion about appointment of alternate members and then bring this for further discussion at the November meeting. Srivastava to discuss this at yearly PANCH meeting, too, to get feedback from other panel chairs.

SSP Action Item #5: Considering the large amount of data which each member has to look through during the July meeting, it was suggested by the panel that Srivastava poll absent members on their opinion on increasing the length of the July meeting to a three and half days meeting.

9.4 Next two meetings

Our Spring 96 meeting has to be well before the April '96 PCOM meeting (April 22-25) and also after the thematic panel spring meeting. Roger Scrutton has invited the panel to have this meeting in Edinburgh. The panel accepted this invitation and voted to hold this meeting from March 27 to 29, 1996 in Edinburgh provided this is agreeable to the absent members as well.

SSP Action Item #6: Srivastava to poll absent SSP members about the time for the spring meeting and request PCOM's permission to hold this meeting in Edinburgh accordingly.

SSP Action Item #7: Srivastava to request approval from JOIDES Office for the November SSP meeting to be held at LDEO, from November 6 to 8, 1995.

9.5 Any other business

None

The panel would like to thank Dan Quoidbach, staff of the ODP Data Bank, John Diebold and Greg Mountain all from Lamount Doherty Earth Observatory, for hosting the meeting and for organising the interesting and entertaining evening in downtown NY city. Special thanks go to the staff of the data bank for organising the lunches and coffees for the meeting and attending to numerous requests from the panel members.

Appendix A

Site Survey Readiness Classification of proposals considered											
Global ranking	1. Presently viable proposal for FY 97 drilling.		2. Possibly viable proposal for FY 97 drilling; likely for FY 98			3. Unlikely for FY 97; possible for FY 98.		4. Impossible for FY 97.	5. Impossible for FY 97.	6. Not considered - new data does not match proposal.	7. Not considered - no data has been submitted to DB
	1A	1B	2A	2B	2C	3A	3B				
S-1		473									
L-1	300*				300*						
T-1				447							
O-1				354							
T-2				461							
L-2				411 (480)	(480)*						
O-3				464							
S-3				348							
O-4		404									
T-4		468*									468*
L-4			457								
O-5	462										
L-5				426							
T-5									355		
0-6								465			
S-6				367							
S-7									471		

*: Refer to minutes for explanation.

Appendix B

SSP Watchdog Assignments Scheduled Legs

Leg	*Proposal Name*	*Prop. No.*	*April 1993 (Trieste)*	*July 1993 (Lamont)*	*Nov 1993 (Lamont)*	*April 1994 (Brest)*	*July 1994 (Lamont)*	*Nov 1994 (Lamont)*	*APRIL 1995 (BIO)*	*July 1995 (Lamont)*
160	E. Mediterranean (Med Ridge & Med Sapropels)	330-Rev 391-Rev	Farre Kidd	Farre Kastens	Farre Kastens	Farre/ Quoidbach	Farre/ Quoidbach	Quoidbach	data set complete	Wallace
161	W. Mediterranean (Alboran & Med. sapropels)	323-Rev2 391-Rev	Kastens Kidd	Kastens Kastens	Kastens Kastens	Kastens/ Quoidbach	Kastens/ Quoidbach	Quoidbach	data set complete	Wallace
162	N. Atlantic Arctic Gateways II	NAAG	Hinz	Hinz	Srivastava	Srivastava	Peterson/ Quoidbach	Peterson/ Quoidbach	Peterson/ Quoidbach	data set complete
163	NARM volcanic II (East Greenland	NARM-V Add2	Scrutton	Terhu	Scrutton	Kidd	Terhu	Scrutton	Scrutton/ Quoidbach	Scrutton/ Quoidbach
164	Gas Hydrate	423-rev	Mountain	Camerlenghi	Camerlenghi	Quoidbach	Camerlenghi/ Quoidbach	Quoidbach	Camerlenghi/ Quoidbach	Lykke-Andersen/ Quoidbach
165	Caribbean - Ocean History	434	proposal not yet submitted	proposal not yet ranked	Kastens (Cari-aco)		OHP: Mountain	OHP: Mountain	Mountain/ Quoidbach	Diebold/ Quoidbach
166	Bahamas Transect (sea level & fluid)	412-Add	Sibuet	no data package	Sibuet	Sibuet	Sibuet	Sibuet	Enachescu/ Quoidbach	Enachescu/ Quoidbach
167	California Margin	386-Rev, 422-Rev	Kidd	Camerlenghi	Camerlenghi	Lykke-Andersen	Camerlenghi/ Tokuyama	Tokuyama	Camerlenghi/ Quoidbach	Flood/ Quoidbach
168	East Juan de Fuca hydrothermal	440	not yet submitted	not yet submitted	not yet submitted	Srivastava	Srivastava	Srivastava/ Casey	Casey/ Quoidbach	Quoidbach
169	Sedimented Ridges II	SR-DPG	Hinz	Hinz	Srivastava	Srivastava	Srivastava	Srivastava/ Casey	Casey/ Quoidbach	Quoidbach

SSP Watchdog Assignments Scheduled Legs

Leg	*Proposal Name*	*Prop. No.*	*April 1993 (Trieste)*	*July 1993 (Lamont)*	*Nov 1993 (Lamont)*	*April 1994 (Brest)*	*July 1994 (Lamont)*	*Nov 1994 (Lamont)*	*APRIL 1995 (BIO)*	*July 1995 (Lamont)*
170	Costa Rica acc. wedge	400, 400-Rev	Moore	Camerlenghi	not discussed: not in FY 95 prospectus	Lykke-Andersen	Camerlenghi	Peterson	Tokuyama	Tokuyama / Quoidbach

SSP Watchdogs
Highly-ranked Unscheduled Proposals

SR '93	*FR '93*	*SR '94*	*FR '94*	*SR 95*	*Title*	*Prop.*	*April 1993 (Trieste)*	*July 1993 (Lamont)*	*Nov. 1993 (Lamont)*	*April 1994 (Brest)*	*July 1994 (Lamont)*	*Nov. 1994 (Lamont)*	*April 1995 (BIO)*	*July 1995 (Lamont)*
				L-1	Return to 735B (Atlantis II FZ)	300-rev	Srivastava	Srivastava	Srivastava	Srivastava/ Quoidbach	out of geo-graphic area	out of geo-graphic area	Casey	Scrutton
		S-1, O-3, (tie)		S-3	New Jersey Sealevel II	348-add				Kastens	Farre	not in pro-spectus	Kastens	Flood
O-3		O-6, S-7		O-1	Benguela Current	354-Rev, 354-Add	Farre	Farre	not in FY 95 pro-spectus	Farre	out of geo-graphic area	out of geo-graphic area	Hinz	Lyle
				T-5	Peruvian Margin /Gas Hydrate	355-Rev5	--------	--------	-------	-------	--------	--------	Camerlenghi	Diebold
				S-6	Australian Bight Carbonate	367	------	-------	-------	-------	--------	--------	Enachescu	Enachescu
			T-4		Vema Frac-ture Zone (science)	376-rev3	subsumed by DCS test	subsumed by DCS test	subsumed by DCS test	subsumed by DCS test	subsumed by DCS test	Toomey	not in FY96 prospectus	not in FY96 prospectus
					DCS Engineering (Vema FZ: VE3)	376-Rev2	Kastens	Kastens/ Toomey	Toomey	data set complete	data set complete	data set complete	not in FY96 prospectus	not in FY96 prospectus

SSP Watchdogs
Highly-ranked Unscheduled Proposals

SR '93	*FR '93*	*SR '94*	*FR '94*	*SR 95*	*Title*	*Prop.*	*April 1993 (Trieste)*	*July 1993 (Lamont)*	*Nov. 1993 (Lamont)*	*April 1994 (Brest)*	*July 1994 (Lamont)*	*Nov. 1994 (Lamont)*	*April 1995 (BIO)*	*July 1995 (Lamont)*
O-6	O-2	O-7	O-3	O-4	NW Atlantic drifts (Bermuda/ Blake Bahama)	404, 404-Rev, Rev2	Mountain	Mountain	Mountain	Mountain	Mountain	Mountain	Mountain	Lykke-Andersen
			0-4	O-5	Blake Plateau & Blake Nose	404add 462				not yet submitted	discovered in DB cubbyhole	Mountain	Mountain	Lykke-Andersen
O-13					North Atlantic Climatic variability	406	ranked too low	ranked too low	not in FY95 prospectus	partially merged into NAAG II	partially merged into NAAG II	partially merged into NAAG II	partially in Leg 162	partially in Leg 162
L-12, O-4		L-1, O-1	O-1, L-6, S-6	L-2	Caribbean	384rev3, 408-R2, 411, 415-Rev	Mountain	not discussed: no data package	not discussed: not in FY95 prospectus	Mountain	LITH: Hinz	LITH: Scrutton	Hinz	Scrutton
		L-5		L-5	Australia-Antarctic Discordance	426	ranked too low	ranked too low	not in FY95 prospectus	Kastens	out of geographic area	out of geographic area	Kastens	Enachescu
O-2		O-3 (tie)			Sub-Antarctic SE Atlantic transect	430	Camerlenghi	no data package	not in FY95 prospectus	Peterson	out of geographic area	out of geographic area	partially merged with 464	partially merged with 464
				L-6	Izu-Mariana Mass Balance	(435-Add2), 472	--------	-------	--------	--------	-------	------	Scrutton	out of 1997 geographic area

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SSP Watchdogs
Highly-ranked Unscheduled Proposals

SR '93	*FR '93*	*SR '94*	*FR '94*	*SR 95*	*Title*	*Prop.*	*April 1993 (Trieste)*	*July 1993 (Lamont)*	*Nov. 1993 (Lamont)*	*April 1994 (Brest)*	*July 1994 (Lamont)*	*Nov. 1994 (Lamont)*	*April 1995 (BIO)*	*July 1995 (Lamont)*
				S-7	Nicaragua	(435-Rev), 471	--------	--------	---------	--------	--------	--------	Scrutton	Scrutton
		O-5			Southwest Pacific Gate-way	441	not yet sub-mitted	not yet submitted	not yet submitted	Peterson	out of geo-graphic area	out of geo-graphic area	Peterson	out of 1997 geographic area
		T-5		T6	Mariana back-arc basin	442	not yet sub-mitted	not yet submitted	not yet submitted	Tokuyama	out of geo-graphic area	out of geo-graphic area	Tokuyama	out of 1997 geographic area
				S-4 T-7	Nankai defor. & fluids	445-Rev	-------	------	-------	------	--------	--------	Camerlenghi	out of 1997 geographic area
		T-1		T-1	W. Woodlark Basin	447	not yet sub-mitted	not yet submitted	not yet submitted	Farre	out of geo-graphic area	out of geo-graphic area	Enachescu	Enachescu
				L-3	Ontong Java Plateau origin	448							Tokuyama	out of 1997 geographic area
		T-3		T-3	Taiwan arc/-cont collision	450	not yet sub-mitted	not yet submitted	not yet submitted	Sibuet	out of geo-graphic area	out of geo-graphic area	Scrutton	out of 1997 geographic area
				L-7	Tonga Forearc	451-Rev2							Scrutton	out of 1997 geographic area

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SSP Watchdogs
Highly-ranked Unscheduled Proposals

SR '93	*FR '93*	*SR '94*	*FR '94*	*SR 95*	*Title*	*Prop.*	*April 1993 (Trieste)*	*July 1993 (Lamont)*	*Nov. 1993 (Lamont)*	*April 1994 (Brest)*	*July 1994 (Lamont)*	*Nov. 1994 (Lamont)*	*April 1995 (BIO)*	*July 1995 (Lamont)*
				L-4	Kerguelen Plateau	457-Rev							Hinz	Tokuyama
T-2	T-4	T-4	T-3	T-2	NARM non-volcanic (Iberian margin II)	NARM-NV 461,461-add	Mountain	Mountain	Mountain	Mountain	Mountain	Mountain	Mountain	Diebold
				O-3	Southern Ocean Paleo.	464	-------	------	----	-----	-----	----	Peterson	Flood
				O-6	SE Pacific Paleoceano -graphy	465	--------	------	-----	-----	-----	------	Peterson	Tokuyama
				T-4	Romanche FZ	468	----------	--------	-------	------	-------	------	Kastens	Diebold
				S-1	Saanich Inlet	473	----------	--------	-------	--------	--------	---------	Casey	Lyle

Future Watchdogs: Australia-Antarctic Discordance (426) : Doug Toomey
Romanche FZ (468): Doug Toomey

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Appendix C

NSF BUDGETS

	FY 94	FY 95	FY 96*	
TOTAL NSF BUDGET	2,982M	3,263M	3,360M	
GEOSCIENCES DIR	404	419	451	7.6%
ATMOS. SCI.	134	144	156	8.4%
EARTH SCI.	81	82	90	9.4%
OCEAN SCI.	189	193	205	6.3%
RESEARCH	99	102	110	
FACILITIES	51	50	54	
ODP	39	40	41	

OCEAN DRILLING BUDGET

OPERATIONS	28.4	27.6	27.6
USSSP/USSAC	4.9	5.2	5.4
GRANTS PROG.	5.2	5.8	7.1
NSF TAXES	0.2	1.3	1.0
	38.7	39.9	41.1

* PRESIDENT'S BUDGET TO CONGRESS

BUDGETS IN $ MILLIONS

NSF - ODP GRANTS PROJECTS

* PRIMARILY FIELD & INSTRUMENT PROJECTS

* FY 1995 PROJECTS:

CALIFORNIA CURRENT PALEOCEANOGRAPHY
MITCH LYLE (BOISE ST) -LOWELL STOTT (USC)
EWING - MAY-JUNE

MIDDLE VALLEY DETAILED HEAT FLOW
ANDY FISHER (INDIANA) - PAUL BAKER (DUKE) MARC LANGSETH (LDEO)
EWING-JUNE

TAIWAN COLLISION ZONE
DON REED (SAN JOSE ST.) - GREG MOORE (SOEST) KIRK MCINTOSH (TEXAS) -NEIL LUNDBERG (FL.STATE)
EWING - AUGUST
COOPERATIVE PROGRAM WITH TAIWAN

BARBADOS FLUIDS
BOBB CARSON (LEHIGH) - KEIR BECKER (MIAMI)
NAUTILLE - DECEMBER
COOPERATIVE PROGRAM WITH FRANCE

GAS HYDRATE OFFSET VSP -- LEG 164
HOLBROOK (WHOI)
HATTERAS - NOVEMBER

OSN DEVELOPMENT
PURDY, STEPHEN (WHOI), ORCUTT (SIO), YAMAMOTO (MIAMI)
INSTRUMENT DEVELOPMENT

* FY 1996 PROJECTS

ANTARCTIC DISCORDANCE
SEMPERE (WASH) - CHRISTIE (OREGON STATE)
MELVILLE - JANUARY

SOUTH ATLANTIC PALEOCEANOGRAPHY
COOPERATION WITH GERMAN SCIENTISTS
HODELL (FLORIDA) - FROEHLICH (GEORGIA TECH) CHARLES (SCRIPPS) - BURCKLE (LDEO)
THOMPSON (?) - JANUARY

OSN PILOT EXPERIMENT -- JOINT EAR/MGG
STEPHEN (WHOI) - YAMAMOTO (MIAMI) - ORCUTT (SIO)
REVELLE (?) - FALL, '96

SEDIMENTED RIDGES SEISMIC EXPERIMENT -- JOINT MGG
WEBB (SIO)
WECOMA (?) - AUGUST

TONGA FOREARC PETROLOGY
BLOOMER (OSU)
MELVILLE - JUNE

Appendix D

The region around Site 963 (MedSap 4A) in the strait of Sicily varied little in geology. As a result no extensive site survey during Leg 160 was needed. A simple pattern of two lines across the proposed site was made. The two new seismic profiles followed existing site survey lines to which they were strongly similar.

At Site 964 (MedSap 3) several short seismic lines were run in order to assess site suitability. Two possibilities were being considered, one at the GPS-determined location of a long piston core (KC01) which had obtained a good series of sapropels, and one at the less accurately determined cross point of two R/V Urania seismic lines about a nautical mile to the northeast along a northeast-southwest oriented ridge. The ridge is seen on site survey bathymetric charts to broaden in the vicinity of the latter crossing of Urania lines, making it a more attractive target, but the KC01 location was advantageous to consider because it was known to be a good site at least from a consideration of the upper sediments. One difficulty in surveying the site was the presence of considerable seafloor relief of the order of 100 m. Sudden changes in depth over short distances caused so many diffractions that it was difficult to distinguish true seafloor reflections. One line was run along the ridge and plateau from the southwest to the northeast through both the KC01 location and the cross-lines originally picked as the Medsap-3 site. This line followed a Urania line, for comparison purposes. The next line ran a right angle to the first, through the KC01 site from the northwest to the southeast, and a third was run through the Medsap-3 location from south to north. A good idea of the topography and upper sedimentary unit down to a strong reflector at about 200 ms two-way travel time (TWTT) was known from the site survey by Urania. Cross sections of the ridge showed that both potential sites were reasonably good targets; however the original Medsap-3 site was chosen because of its location on a broader and slightly shallower part of the ridge.

At the Eratosthenes Seamount sites (ESM-1A, -2A, -3A, -4A, Sites 965-968), site surveys with crossing lines were conducted at all proposed sites to target the best drilling locations on these small scale features. Seismics were very similar to those obtained at the pre-cruise site survey by the R/V Gelendzhik.

Site 969 (MedSap 2D) is situated on the inner, shallower part of the Mediterranean Ridge. A site survey carried out prior to drilling duplicated sections of Gelendzhik survey lines crossing the site at right angles.

At the mud volcano sites (MV-1, MV-2, Sites 970, 971), the exact drilling locations on the crest, flank, and away from the small scale structures had to be determined by pre-site surveys on the JOIDES Resolution. Site surveys followed existing Bannock and Gelendzhik site survey lines.

At the Mediterranean Ridge sites (MR-2, MR-3, Sites 972, 973), small scale relief in deep water (>3820 m) made the acquisition of good seismic data difficult. Exact location was not all that critical. The main problems with these tectonic sites was that safety concerns, time constraints at the end of the leg, and technical difficulties restricted the penetration to <150 m into the accretionary complex.