FINAL
(29 March 1994)

JOIDES SITE SURVEY PANEL MINUTES

November 8-9, 1993
Lamont-Doherty Earth Observatory
Palisades, NY, U.S.A.

Members: Kastens, Kim (L-DEO, Palisades, NY, USA) Chair
Camerlenghi, Angelo (OGS, Trieste, Italy)
Kuramoto, Shin'ichi (Geological Society of Japan)
Mountain, Greg (L-DEO, Palisades, NY, USA)
Scrutton, Roger (U. of Edinburgh, Edinburgh, UK)
Sibuet, Jean-Claude (IFREMER, Brest, France)
Srivastava, Shiri (Atlantic Geoscience Center, Dartmouth, NS, Canada)
Toomey, Doug (Univ. of Oregon)

Liaisons: Ball, Mahlon (PPSP)
Blum, Peter (TAMU)
Collins, Bill (JOIDES Office)
Dick, Henry (PCOM)
Malfait, Bruce (NSF)
Quoidbach, Daniel (ODP Data Bank)

Absent: John Farre (Exxon)
Karl Hinz (Bundesanstalt für Geowiss. u. Rohstoffe)
Anne Trehu (Oregon State University)

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ODP Site Survey Panel
November 8-9, 1993
Executive Summary

The ODP Site Survey Panel meet at Lamont-Doherty Earth Observatory on November 8 and 9, 1993. The primary charge for this meeting was to provide advice to the ODP Planning Committee on the site survey readiness of potential future drilling legs that were included in the fiscal year 1995 drilling prospectus prepared by PCOM at their August meeting OR that were added to the prospectus by any of the fall '93 Thematic Panel Rankings. With a few exceptions, this was a subset of the programs we considered at our July meeting.

The following recommendations, action items, and consensuses resulted from the meeting.

SSP recommendation #1: SSP recommends that PCOM and ODP/TAMU require that all legs, including barerock and offset drilling legs, plan appropriate contingency site(s) for drilling in the event of technical failure or other unforeseen problems, and deposit appropriate supporting data for those site(s) in the ODP Data Bank.

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SSP Consensus #1: SSP is distressed to find that, less than a month before the ship is due to sail for the ***MARK*** area, the Data Bank still lacks adequate visual characterization of the seafloor in the vicinity of proposed site MK-1, adequate side-looking sonar images from the MPL/SIO deep-tow side-looking sonar cruise, documentation of seismic refraction work in the field area, and any documentation of any backup sites at all. Unless these data are forthcoming, TAMU/ODP will not have at hand an adequate data package to discuss alternative sites if a change of plans becomes necessary, and the Data Bank will not have an adequate data package to support post-cruise investigators who wish to understand the context of the drill sites.

SSP Consensus #2: All vital data types for the ***North Barbados Ridge*** program (Leg 156) are in the Data Bank. Proponents need to submit outstanding "desirable" data types (velocity, 3-D processing results) in time for inclusion in the Co-Chiefs Data Package.

SSP Consensus #3: All "vital" data types for the proposed sites at the ***TAG Hydrothermal System*** (Leg 158) are in the Data Bank. Newly-collected heatflow data should be submitted in time for Safety review. SSP requests that an addendum be submitted that describes alternative plans, with specific backup sites, in the event of technical failures at the primary sites. Two alternatives that have been suggested are an APC program that targets the active TAG hydrothermal mound and/or attempting to drill into relict mounds within the TAG hydrothermal system. Relevant data for the backup sites needs to be submitted to the Data Bank.

SSP Consensus #4: All data for sites compatible with the science objectives of site VE-3 at the ***Vema Fracture Zone***, as well as with the engineering objective of testing the DCS system, have been received by the Data Bank. Potential sites are on the crest of the southern transverse ridge of the Vema Fracture Zone at a water depth of either 500 m or 1200 m. At both sites the seafloor is free of sediment and a limestone cap is evident.

SSP consensus #5: All vital data are in the Data Bank for sites IG1n, IG1nbis, Ig2n, Ig3n, IG2nbis of the ***Eastern Equatorial Atlantic Transforms*** program.

SSP Consensus #6: Within the Mediterranean Ridge program, the mud volcano site, the Ionian transect, the Sirte transect, and the Erastosthenes transect (except ESM-4) have complete or nearly complete data packages. The data packages for the Katia transect

and the Herodotus transect are lacking vital data types, most notably high resolution seismic reflection data.

Consensus #7: The strong data package for the ***Alboran Basin*** has been updated to take into account the repositioning of two sites (ALB1 and ALB2) in response to comments from the Safety Panel. A few small items of existing data (3.5kHz or equivalent across the repositioned sites, heatflow and coring information from recent cruises) remain to be deposited.

SSP Consensus #8: The majority of the sites in the plan outlined in the draft report of the TECP study group on ***NARM-nonvolcanic II (Iberia)*** were approved by SSP prior to leg 149. New sites IAP-6 and IAP-7 are on Lusigal Line 12, but no crossing lines are on file for either site. SSP emphasizes the importance of 3-D control on the basement targets at both IAP-6 and IAP-7.

SSP Consensus #9: SSP considers the ***Gas Hydrates*** program ready for scheduling from a site survey perspective. Only minor improvements of the data package (additional seismic displays, provision of existing OBH velocity data, provision of recently collected side-looking sonar and sea floor photographic data) are suggested by SSP.

SSP consensus #10: The following items are in the Data Bank for the ***Bahamas Transect:*** MCS line across the proposed sites; seven additional, nearby MCS lines; detailed oceanographic reports on currents, etc. There also exists a grid of USGS SCS lines. At present, all vital data are not available. Acquisition of vital (high-resolution SCS, 3.5 kHz, cores at sites) and recommended (side scan and heatflow) data is planned and NSF funded for spring 1994. If these data are collected as planned and deposited in the Data Bank, the data package could be complete by the July 1, 1994 data deadline.

SSP Consensus #11: No data has yet been submitted to the ODP data bank in support of drilling in the ***Cariaco Basin.*** However, we infer from figures in the proposal that all vital data types (high resolution seismics, cores, and 3.5kHz) exist in adequate quantity and quality to support the proposed science. The proponents are urged to submit a data package to the ODP Data Bank at their earliest convenience.

SSP Consensus #12: SSP recommends acquisition of additional data before drilling on the ***Atlantis II fracture zone*** (area of site 735B). For the array of shallow sites, we recommend data acquisition aimed at creating a surficial geological map of the wave cut platform (through some combination of submersible mapping, ROV work, side-looking sonar, towed camera sled, rock drill, precisely located dredging, etc.) to define the horizontal scale of the phenomena of interest. In addition, a near bottom seismic refraction experiment would be valuable before deepening 735B.

SSP Consensus #13: Most necessary site survey data for ***Sedimented Ridges II*** remains in the package prepared for Leg 139. However, SSP would like to see the additional data collected in this region after Leg 139 deposited at the data bank at the earliest possible time.

SSP Consensus #14:. The MAP portion of ***VICAP-MAP*** is ready to drill, and there is now a good deal of supporting data for the VICAP portion as well. Considering the VICAP proposal on a site-by-site basis, there are still a number of data gaps in the data in the Data Bank, and at two sites (VICAP-5 and -6), the drilling targets, as stated in the site summary forms, are not visible on the seismic data. Some of these data gaps could be filled by existing data or data to be collected in the near future.

SSP Consensus #15: SSP discussed two possible scenarios for ***NARM-VII*** drilling. The EG63 transect has benefited from recent cruises designed with site survey criteria in mind, and according to email correspondence from the proponents, all requirements have been fulfilled; however, SSP has not seen or evaluated the full data set

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

SSP Consensus #16: Many of the sites for ***NAAG II*** drilling were already approved for NAAG-1 (Leg 151). Except for the NAMD-1 site, all the newly selected sites for NAAG-1 have complete or nearly complete data packages. Apparent mud diapirs around the site off Svalbard (SVAL-1) may pose some safety problems. NAMD-1 has no data package at all.

SSP Consensus #17: All vital data and most existing desirable data for all ***Mediterranean Sapropels*** sites is in the Data Bank and of good quality. The program is ready to schedule. We encourage the proponents to develop alternative sites at the western end of the transect (Alboran Basin) where the stratigraphic section might be more complete than at the proposed site MedSap 7B (reoccupation of DSDP 121).

SSP Consensus #18: Very little data has been deposited in support of ***NW Atlantic Sediment Drifts*** drilling. The data package for Site BR-1 on the Bermuda Rise lacks adequate navigation and adequate high resolution SCS data. For the Blake Ridge sites, proponents Keigwin and Flood are presently at sea collecting digital 3.5kHz and large-diameter piston cores. However, it is unclear whether the data set for the Blake Ridge sites will be adequate even after the present cruise because of the apparent lack of high-resolution seismic data.

SSP Consensus #19: No data have been submitted in support of ***California margin*** drilling since the July SSP meeting, and the site survey package remains largely incomplete. New data will be acquired by the proponents in 1994.

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Action Item #1: JOIDES Office liaison Bill Collins to advise proponents that the "alternate" position on the ODP Site Summary Forms can be a range of positions, as for example a range of shotpoints along a seismic line.

Action Item #2: ODP Data Bank to send a set of copies of all watchdog letters to the JOIDES Office following each SSP meeting.

Action Item #3: Quoidbach/Mountain to look into the feasibility of archiving videotapes from the Resolution drillstring camera, with associated navigation data, in the ODP Data Bank.

Action Item #4: TAMU liaison Blum to look into the feasibility of digital logging of Resolution acoustic navigation during video surveys.

SSP action item #5: JOIDES Office liaison Bill Collins to provide a list of names and contact information for Co-Chief Scientists of scheduled legs; watchdogs to send watchdog letter to Co-Chiefs as well as lead proponent.

Action Item #6: All panel members to write to the lead proponent of programs on which they are the watchdog, informing them of the sense of the meeting and enclosing the relevent section of the draft minutes.

Action Item #7: SSP Chair to contact three candidates for the SSP vacancy, and invite them to have their names put forward for consideration by PCOM; then to forward the names of the agreeing candidate(s) to PCOM.

Action Item #8: SSP Chair Kastens to poll the absent members for constraints on dates for spring meeting, to select a date, and to request permission to meet in Brest, France.

ODP Site Survey Panel
November 8-9, 1993
Lamont-Doherty Earth Observatory
Minutes

1. PRELIMINARY MATTERS

Please note that these minutes are organized into logical chapters for ease of reading. They do not reflect the exact order of discussion at the meeting. The name in parentheses after each section heading is the person responsible for leading the discussion of that portion of the meeting, and usually the person responsible for drafting that section of the minutes. For proposed and scheduled drilling programs, the panel member listed as "SSP watchdog", or "acting watchdog" led the discussion and drafted the minutes.

1.1 Introduction & Logistics (Kastens)

Chairperson Kastens introduced new member Shin'ichi Kuramoto from Japan, and explained logistical arrangements for the meeting.

1.2 Action items from July 1993 Lamont meeting

(July action item #1) Dan Quoidbach and Greg Mountain reported that they had gained approval of all interested parties to reduce the number of data packages ("Co-Chiefs packages") from four to three. One will go to TAMU (Tim Francis) for use on shore for decision-making during the leg, and for the use of the Staff Scientist after the leg. The second will go to one of the Co-Chiefs, to be brought to the ship by that Co-Chief and retained by that Co-Chief after the leg. The third will go to the Staff Scientist, to be carried to the ship; at the end of the leg, that package will be given to the other Co-Chief.

(July action item # 2) Bill Collins reported that language has been incorporated into the proposal submission guidelines cautioning proponents to take into account potential manmade seafloor hazards in selecting their drillsite locations, and the new Site Summary form has a question about man-made hazards.

(July action item #3) SSP watchdogs for programs on continental margins near populated areas included a caution about man-made seafloor hazards in their watchdog letters.

(July action item # 4) ODP/TAMU liaison Blum reported that a realtime navigation plot is now available on the Resolution's bridge; the equipment has been provided free on loan.

(July action item #5) Dan Quoidbach reported that the Data Bank has ordered a VCR capable of showing both European and U.S. format videotapes; duplication of videotapes, when called for, will be done commercially rather than in house.

(July action item #6) SSP/PCOM liaison Dick reported that the question of mid-cruise changes of plans for barerock/offset drilling sites hadn't been fully addressed at PCOM. More discussion on this issue followed, and the following recommendation was drafted:

SSP Recommendation #1: SSP recommends that PCOM and ODP/TAMU require that all legs, including barerock and offset drilling legs, must plan appropriate contingency site(s) in addition to their primary sites, for drilling in the event of technical failure or other unforeseen problems; and must deposit appropriate supporting data for those site(s) in the ODP Data Bank for inclusion in the Co-Chief's Data Package.

On the topic of approving mid-leg changes of site position, JOIDES Office liaison Bill Collins said that the question had been raised by some proponents about whether they could get approval in advance of a leg to drill anywhere within a range of positions, as for example a range of shotpoints on a seismic line. After discussion, SSP concluded that we could handle examining data over a range of positions surrounding a site, as well as at the site itself.

Action Item #1: JOIDES Office liaison Bill Collins to advise proponents that the "alternate" position on the ODP Site Summary Forms can be a range of positions, as for example a range of shotpoints along a seismic line.

(July action item #7) Some SSP members have solicited comments on the draft guidelines on shallow water drilling from their constituencies, and have forwarded such comments to PPSP Chair Mahlon Ball. Collins reported that the draft has been edited by Brian Lewis and will go to PCOM for consideration at the annual meeting.

(July action item #9) Kastens reported that the Data Bank staff are now cross checking to make sure that watchdog letters had been sent for all programs discussed at SSP meetings, to ensure that proponents are receiving adequate feedback about data requirements. Copies of watchdog letters had been received at the Data Bank for 100% of the programs discussed at the July meeting. Bill Collins asked that the JOIDES office be copied in on all SSP watchdog letters. Rather than have each watchdog worry about sending a separate cc to the JOIDES Office, the Data Bank will send them all at once.

Action Item #2: ODP Data Bank to send a set of copies of all watchdog letters to the JOIDES Office following each SSP meeting.

(July action item #12) Data Bank manager Quoidbach reported that the Data Bank is now receiving copies of all seismic data collected on the Resolution. There followed a discussion of other survey-type data collected on the Resolution, notably video surveys and associated navigation. Apparently the navigation of the ship during video surveys is done by hand on paper, and the pieces of paper are not routinely saved. In at least some cases, it seems that the videotapes are overwritten on subsequent legs. SSP points out that although the original motivations for putting the drillstring video on the ship were operational rather scientific, nonetheless the resulting visual data can be extremely valuable for understanding the geological setting of the drillsite. This data should be properly logged and archived in a place where it is accessible to the ODP scientific community; SSP suggests the ODP Data Bank, along with the Resolution seismic data.

Action Item #3: Quoidbach/Mountain to look into the feasibility of archiving videotapes from the Resolution drillstring camera, with associated navigation data, in the ODP Data Bank.

Action Item #4: TAMU liaison Blum to look into the feasibility of digital logging of Resolution acoustic navigation during video surveys.

1.3 Charge for this meeting (Kastens)

The primary charge for this meeting is to provide advice to the ODP Planning Committee on the site survey readiness of potential future drilling legs that were included in the fiscal year 1995 drilling prospectus prepared by PCOM at their August meeting OR that were added to the prospectus by any of the fall '93 Thematic Panel Rankings. With a few exceptions, this is a subset of the programs we considered at our July meeting.

1.4 New Watchdog assignments (Kastens)

The only new proposal considered at this meeting was the Cariaco Basin (prop 434), which SGPP had paired with the Mediterranean Sapropel proposal to form a potential single leg. The MedSap watchdog, Kastens, acted as watchdog for the Cariaco Basin as

well. In the absence of John Farre, Kuramoto acted as watchdog for Mediterranean Ridge. In the absence of Karl Hinz, Srivastava acted as watchdog for Sedimented Ridges and NAAG-II. In the absence of Anne Trehu, Kastens acted as watchdog for MARK, and Scrutton acted as watchdog for NARM-volcanic II.

2. REPORTS

2.1 PCOM (Dick)

The August PCOM meeting in Brisbane prepared the prospectus of highly ranked programs which are potential candidates for 1995 drilling. These included:

Program	**PCOM Watchdog**
Return to 735B	Mevel
NARM Volcanic II (East Greenland)	Suyehiro
Sedimented Ridges II	Becker
NAAG II	Sager
California Margin	Berger
Gas Hydrates	Austin
Mediterranean Sapropels	Mix
VICAP/MAP	Arculus
Alboran Sea	Taylor
NARM Non-Volcanic II (Iberia)	Mutter
E. Equatorial Atlantic Transform	Fox
Mediterranean Ridges (shallow)	Kidd

PCOM opted to draw programs from most of the categories of readiness in the Site Survey Panel's matrix of readiness, in order to allow for the most options possible for 1995 drilling, by including programs which could be modified or new data likely to be available in time for scheduling at the December meeting.

A major issue at PCOM was the disposition of the Atlantic Repository. PCOM recommended the establishment of a new European Repository, but indicated that transport of old cores needed considerable study and was problematic, possibly resulting in unacceptable degradation of the existing collection. Considerable time was also spent reviewing the recommendation of the ASRC report on restructuring the advisory structure for JOIDES and indicated that some of the proposal needed further review, and that others were already being incorporated into the existing structure. With respect to review of proposals, they felt that modification of the existing system was preferable to a new system. They did recommend, however, that there would be a prescheduling meeting consisting of the panel chairs and some members of PCOM prior to the regular Dec. PCOM scheduling meeting in order to streamline that difficult process.

PCOM will review the issue of candidate sites for DCS testing at the annual meeting in December, and will not move leg 158 (TAG) if the DCS test is delayed, finding instead a replacement science leg for Leg 157. They also approved the SSP request for a November meeting for a final run-through of the 1995 prospectus following the fall thematic panel meetings.

2.2 JOIDES (Collins)

Collins reported on the results of the Fall Thematic Panel meetings. In addition to the proposals in the FY95 Prospectus, three other proposals were added to the prospectus

by virtue of their being highly ranked by the panels. These are Bahamas Transect (412---/Add2) and a proposed extension to the NARM-DPG East Greenland EG63 Transect (NARM-Add2). Also, proposal 404---- W. North Atlantic Sediment Drifts, in combination with the Mediterranean Sapropels proposal, was ranked highly and should therefore be reviewed by this panel. SGPP suggested that a combination of Proposal 434----, a single APC hole in the Cariaco Basin, and the Mediterranean Sapropels proposal be considered as a candidate for the Leg 157 slot. Proposal 434---- should also be reviewed at this meeting.

2.3 Data Bank (Mountain/Quoidbach)

On September 1, Dan Quoidbach began work as the ODP Data Bank manager. To ensure a smooth transition, Greg Mountain has agreed to act as an advisor to the Data Bank for one year. On October 1, Ana Maria Alvarez changed to working full time (she had formerly worked part time) for the Data Bank.

The Data Bank has received a considerable amount of data since the July SSP meeting, most of it arriving right at the November 1 submission deadline. A list of data received and sent by the Data Bank since the last meeting can be found in Appendix A. This data was logged into the Data Bank's 4th Dimension database and archived in time for the Fall SSP meeting. Prior to the submission deadline, the Data Bank staff was busy preparing Safety Packages for six proposals which were to be either reviewed, or pre-reviewed, by the PPSP at their October meeting at Woods Hole. With all of this taking place while the Leg 153 Co-Chiefs' packages were being prepared, the fall was indeed a busy time at the Data Bank.

In order to cope with the increasing amount of data which is flowing into the Data Bank, several projects are planned for the coming year. These include: (a) improving the 4th Dimension database in order to better track what data exists in the Data Bank, and to simplify report generation. (b) a physical reorganization of the Data Bank to allow for the storage of the ever increasing volume of archived material. (c) Gaining the ability to accept digital side-scan and multibeam data, and the ability to electronically reproduce large-format color and gray-scale datasets. With Lamont's purchase of a large-format color plotter last year, and the Data Bank's recent acquisition of a color Sun workstation, the hardware to do this is in place. The software needed for this system is currently being written at Lamont by Dave Caress. The Data Bank plans to work with Caress to ensure that his MB system will support the side-scan and multibeam data types commonly used by all ODP member nations. In the future we hope to be able to accept both raw data and completed maps in digital form, and be able to reproduce them on-site, at selected scale and projection, and in color, for the ODP community.

Greg Mountain stated that Dan Quoidbach would begin traveling to national meetings to publicize the Data Bank among the JOIDES community scientists. The Data Bank is also planning to provide JOI with a display for their booth which is shown at several national meetings. The goal is to provide scientists who are interested in submitting proposals with information on how the Site Survey and Safety panel review system works, and what services the Data Bank can provide to them as they plan their drilling programs.

Kim Kastens noted that the watchdog books will be stored in the Data Bank from now on. These books will contain all relevant information regarding each active proposal's history, including letters from watchdogs to proponents, summaries of data which has been submitted, correspondence between the proponents and the Data Bank, and a copy of the latest version of each proposal. These books will be provide watchdogs with a quick summary of the status of each of their proposals, as well as allowing new watchdogs to quickly get up to speed on their assignments.

2.4 PPSP (Ball)

PPSP Chair Mahlon Ball reported that the Safety Panel had reviewed Legs 154, 155 and 156 (Ceara Rise, Amazon Fan, and Barbados Accretionary Prism) without significant problems. In addition, Alboran Basin, Eastern Equatorial Atlantic Transforms, and Gas Hydrates were pre-reviewed, with PPSP making suggestions to proponents about how to improve their chances for passage of a formal review should their legs be scheduled.

2.5 NSF (Malfait)

NSF liaison Malfait reported on the move of NSF to Arlington, Virginia; the projected budget levels for NSF in coming years; and the status of signing of Memoranda of Understanding with foreign partners. Five partners have renewed through 2003, and Japan has renewed through 1998.

2.6 TAMU (Blum)

TAMU liaison Peter Blum reported that a new seismic acquisition system is being installed on the Resolution, hopefully in time for leg 154.

3. SITE SURVEY IMPLICATIONS OF RECENTLY DRILLED LEG

3.1 Leg 151: North Atlantic Arctic Gateway I (Srivastava)

Drilling a set of holes during Leg 151 was designed to address two important questions: (1) Understanding the evolution of the Fram Strait, the connection between the Arctic Ocean and the northern Nordic Seas. (2) To examine the paleoceanographic conditions which prevailed in this region not only during Neogene but also during Paleogene since the separation of Greenland from Eurasia.

On the whole the Leg was most successful and managed to drill a number of holes at 7 of the proposed sites. The biggest problem which besieged this cruise was the occurrence of floating ice near some of the sites. Some time was lost when the ship had to move out of the drill sites due to ice. Another problem concerned the declining of permission to drill site Yermak-1. By the time permission was granted the weather had deteriorated enough for drilling not to be carried out at this site.

The majority of the holes ended in Quaternary and upper Pliocene sediments except for the three holes where Paleogene strata were encountered. Here too they encountered large unconformities with big hiatuses. The important findings were a thick section of upper-middle Eocene section at hole 913. One of the holes had to be abandoned due to the presence of high pressure gas (hole 908). One of the observations as reported in the preliminary report was that the sediment sections often differed from pre-cruise predictions.

At most of the sites the site survey data was found to be adequate.with the exception of the following as communicated to us by Dr. Annik Myher. "With respect to our site survey data on Leg 151 we were mostly satisfied but there were a few problems that I will outline.

"A minor problem at the East-Greenland Margin site 913 was that we discovered that line NGT 39/2 was part of a two ship constant offset profiling experiment with Prospecta and Conrad as the ships. Seismic lines collected by both ships were provided but it should have been mentioned in the scientific prospectus which line was used since both had the same name and no distinction was made.

"At the Yermak Plateau, Sites 910, 911 and 912 were all drilled on seismic lines collected by the Alfred Wegner Institute: Site 910 (YERM-3) on AWI-91127, Site 911 (YERM-4) on AWI-91130 and Site 912 (YERM-2A) on AWI91131. What we did not have was the tie lines between Site 910 and the others: the AWI91128 and AWI91129 lines. Due to the surprising results, we obtained we felt that those lines would have helped

us in our dating,interpretation and decision-making on the ship and we seriously missed those lines. A tie between the sites is of major importance and those lines should have been included in the data set, however, I don't think the Data Bank has them.

"We had an extensive grid of seismic lines from the University of Bergen both on the Yermak Plateau and in the Fram Strait. Particularly the seismic lines on the Yermak Plateau were used extensively for finding alternative sites for the original YERM-1 site which were covered by ice. We were very pleased by having such a good grid of lines in that area available on the ship.

"The conclusion with respect to Leg 151 is that we had enough with good seismic data and didn't feel the need for any other types of data. What we should learn however, is that in areas like the Yermak Plateau with ice problems, quick decisions have to be taken, and then an extensive set of data is needed to base those decisions on. Not only the seismic line with the site on it, but the survey around also. Tie lines between sites should also be provided if it is possible.

"Furthermore the Data Bank at LDEO had done a tremendous job collecting,copying and organizing our enormous amounts of seismic lines which filled up the Co-Chiefs office on the JOIDES to the roof, giving us problems squeezing into it."

4. SITE SURVEY STATUS OF UPCOMING SCHEDULED LEGS

4.1 Leg 153: MARK

SSP Watchdog: permanent: Trehu; acting: Kastens

SSP Proponents: none

Target Type(s): both sites: tectonic window (offset drilling)

No new data has been received in support of MARK drilling since November 1, 1992. SSP is distressed to find that, less than a month before the ship is due to sail, that the data package is still weak. As noted in the July SSP minutes, the Data Bank still lacks adequate visual characterization of the seafloor in the vicinity of proposed site MK-1, adequate side-looking sonar images from the MPL/SIO deep-tow side-looking sonar cruise, documentation of seismic refraction work in the field area, and any documentation of any backup sites at all.

There has been a flurry of recent correspondence among SSP watchdog Trehu, Data Bank Manager Quoidbach, Co-Chief Scientists Karson and Cannat, and SSP Chair Kastens about this data package. Karson has said that he is not able to provide the MPL/SIO side-looking sonar data, and Cannat has said that she is not able to provide the visual imagery from recent Nautile dives at site MK-1. Even though these Co-Chiefs will presumably hand carry to the ship their personal copies of data they feel that they need for shipboard decision-making, SSP is concerned that: (a) if a change of plans is required for technical or logistical or other reasons, TAMU/ODP will not have at hand an adequate data package to discuss or approve alternative sites, and (b) the Data Bank does not have an adequate data package to support post-cruise investigators who wish to understand the context of the drill sites. In further discussion of point (a), and building upon the MARK discussion at our July meeting, SSP offers the following recommendation:

SSP recommendation #1: SSP recommends that PCOM and ODP/TAMU require that all legs, including barerock and offset drilling legs, plan appropriate contingency site(s) for drilling in the event of technical failure or other unforeseen problems, and deposit appropriate supporting data for those site(s) in the ODP Data Bank.

Both Karson and Cannat also said that they were not aware that more data were needed in support of MARK drilling, and that SSP/Data Bank should have communicated with them earlier. SSP is sympathetic with this last point. Historically, SSP has

communicated officially with the lead proponent of a proposed leg, and held that person responsible for communicating with co-proponents and other investigators working in the field area. However, clearly that system can break down if the lead proponent does not become a co-chief.

SSP action item #5: JOIDES Office liaison Bill Collins to provide a list of names and contact information for Co-Chief Scientists of scheduled legs; watchdogs to send watchdog letter to Co-Chiefs as well as lead proponent.

SSP Consensus #1: SSP is distressed to find that, less than a month before the ship is due to sail for the MARK area, the Data Bank still lacks adequate visual characterization of the seafloor in the vicinity of proposed site MK-1, adequate side-looking sonar images from the MPL/SIO deep-tow side-looking sonar cruise, documentation of seismic refraction work in the field area, and any documentation of any backup sites at all. Unless these data are forthcoming, TAMU/ODP will not have at hand an adequate data package to discuss alternative sites if a change of plans becomes necessary, and the Data Bank will not have an adequate data package to support post-cruise investigators who wish to understand the context of the drill sites.

4.2 Leg 156: North Barbados Ridge

SSP Watchdog: Camerlenghi

SSP Proponents: none

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

No data were submitted to the Data Bank since the last SSP meeting (Lamont, July 1993), at which time SSP reported at all "vital" data types were in the Data Bank, but that outstanding "desirable" data types (velocity, 3-D processing results) had not yet been deposited.

The drilling program has been approved by the Safety and Pollution Prevention Panel based on a package deposited in the Data Bank. The desirable data are missing also from the SPP package.

SSP Consensus #2: All vital data types for the North Barbados Ridge program (Leg 156) are in the Data Bank. Proponents need to submit outstanding "desirable" data types (velocity, 3-D processing results) in time for inclusion in the Co-Chiefs Data Package.

4.3 Leg 158: TAG Hydrothermal System

SSP Watchdog: Toomey

SSP Proponents: none

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

Since the July 1993 SSP meeting no new data has been received by the Data Bank. A letter dated 5 November 1993 from Susan Humphris reviews the status of incoming data: 1) Current meter data has been submitted (not yet received); 2) Susan has requested that Peter Rona submit his data on the relict mounds (not yet received); and 3) heat flow data collected by D. von Herzen and K. Becker in April 1993 will be submitted in a few weeks time. SSP requests that the heat flow data be submitted to the Data Bank in time to be included in the Safety review package, and the other data should be submitted in time to be included in the data Packages sent to the Co-Chiefs and to TAMU for the drilling leg. All "vital" data types for the proposed sites are in the Data Bank.

At the July meeting SSP requested that the proponents submit an addendum describing backup sites in the event that barerock drilling is unsuccessful. Two alternatives have been suggested. First, in view of the success of K. Becker and D. von Herzen in inserting a heat flow probe 1 m into the TAG mound, the proponents suggest piston coring of the TAG mound. This alternative would be consistent with scientific objectives. A second alternative would be to drill the relict mounds, for example the MIR complex. This site is well studied and recent data (not yet received by the Data Bank) show higher levels of heat flow on this particular relict mound. Susan indicates that she and Peter Herzig will discuss these alternatives further at the upcoming AGU meeting. SSP again requests that an addendum describing these alternatives be submitted to the Data Bank.

It has recently come to attention of SSP that several cruises are planned for the TAG area, including mapping of the area using side-scan methods (M. Kleinrock, WHOI) and two possible submersible studies, one funded by BRIDGE and the other by the Japanese government. SSP recommends that the proponents arrange for this data to be submitted to the Data Bank when it becomes available.

SSP Consensus #3: All "vital" data types for the proposed sites at the TAG Hydrothermal System (361-Rev2) are in the Data Bank. Newly-collected heatflow data should be submitted in time for Safety review. SSP requests that an addendum be submitted that describes alternative plans, with specific backup sites, in the event of technical failures at the primary sites. Two alternatives that have been suggested are an APC program that targets the active TAG hydrothermal mound and/or attempting to drill into relict mounds within the TAG hydrothermal system. Relevant data for the backup sites needs to be submitted to the Data Bank.

4.4 Leg 1xx: DCS test at Vema Fracture Zone (376-rev2)

SSP Watchdog: Toomey

SSP Proponents: none, however SSP member Kastens has been involved with site surveys in this area.

Target Type(s): Since this proposal first came to our attention, SSP has been evaluating proposed site VE-3 on the limestone cap of the transverse ridge against the guidelines for target type "G: topographically elevated feature." However, since the vicinity of proposed site VE-3 has been scheduled as a test site for the diamond coring system, the requirements for target type "F: barerock drilling" are also applicable. Proposed sites VE-1 and VE-2 are "offset drilling" targets.

Since the July 1993 meeting a substantial amount of new data has been received by the Data Bank in the vicinity of proposed site VE-3 on the Vema Fracture Zone, which is the area targeted for testing of the DCS. The data was collected from the Ewing in August 1993 (Leg EW9305; Kim Kastens, Chief Scientist) and includes Hydrosweep bathymetry, dredge samples, 3.5 kHz profiling, gravity coring and extensive photographic coverage of the seafloor for sites at water depths of about 500 m and 1200 m. The goal of this survey work, which was achieved, was to find areas at both water depths that were free of sediment and flat lying and thus suitable for siting the barerock drilling guidebase and testing of the DCS. As discussed at length in the letters submitted by K. Kastens (dated 5 and 31 October 1993), a site at the shallower water depth would allow drilling of a 500 m thick section of limestone that would better address the scientific objectives of the proposed Vema drilling. Moreover, a site at depths of about 500 m would allow drilling of a surficial 'black limestone' unit that is not observed at the other sites; sampling this unit may yield important scientific benefits. In comparison, the site at 1200 m depth would allow drilling of a relatively thin section of limestone (50 m) that may not yield sufficient data to constrain the subsidence history of the Vema Fracture zone.

The status of sites VE-1 and VE-2 were not discussed because they are not on the prospectus for 1995 drilling.

SSP Consensus #4: All data for sites compatible with the science objectives of site VE-3 at the Vema Fracture Zone, as well as with the engineering objective of testing the DCS system, have been received by the Data Bank. Potential sites are on the crest of the southern transverse ridge of the Vema Fracture Zone at a water depth of either 500 m or 1200 m. At both sites the seafloor is free of sediment and a limestone cap is evident.

5. POTENTIAL FUTURE DRILLING: TECP

5.1 Eastern Equatorial Atlantic Transforms (346-rev4)

SSP Watchdog: Sibuet

SSP Proponents: Scrutton

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

As the positions of proposed sites have been changed with respect to the ones in proposal 346-REV3, we have adopted a new numbering in July 1993: IG1n and IG1nbis replaced old IG4; IG2n replaced old IG5; IG3n replaced old IG6bis; IG2nbis was a new site. We will still use the new numbering system to avoid confusion with old sites.

All vital MCS, SCS lines and 3.5 kHz lines have been send to the DB since the last SSP July 1993 meeting. OBS refraction velocity results have been provided to the DB. Pertinent photographs from the submersible cruise EQUANAUTE have been provided to the DB.

A magnetic anomaly map of the area has not been provided to the DB, but this type of data is not considered as vital.

A core is required near a re-entry site to establish the conditions of the surficial sediments for setting the reentry cone. Several Kullenberg cores have been obtained close to the proposed re-entry site IG1. The closest coring position is about 5 to 6 miles south of IG1, on the southern flank of the marginal ridge. KS07 is a 3.5 m-long core with foram and nanno mud clay. Though this core is not on the proper side of the ridge but as Site IG1 is far from the shelf, SSP considers that the information can be useful for TAMU.

PPSP met in October and made a pre-review of site data. They suggest to provide for their next meeting appropriate documents to decipher if sites are drillable. In particular, they suggest to properly reprocess MCS data in the vicinity of each site (avoiding for example, to have velocity in water of 1100/s). They are concerned with pinchouts along the northern flank of the marginal ridge and suggest to properly image synrift sediments and their contacts with basement. In addition, they suggest to provide a structural map, a contoured map of Albian sediments showing the existence of low or high points and also informations from commercial drilled holes on the adjacent shelf (lithologies, bottom hole temperatures...). SSP reminds the proponents that if the holes are shifted in response to safety considerations, the data package must be updated to cover the new sites.

SSP consensus #5: All vital data are in the Data Bank for sites IG1n, IG1nbis, Ig2n, Ig3n, IG2nbis of the Eastern Equatorial Atlantic Transforms program.

5.2 Mediterranean Ridges, shallow (330-rev, 330-add3)

SSP Watchdog: permanent: Farre; acting: Kuramoto

SSP Proponents: Camerlenghi, Kastens; SSP liaison Kidd has been involved with site surveys for this program

Target Type(s): all sites: Type A: paleoenvironment

A significant amount of data in support of drilling the Mediterranean Ridge (MR) was recently deposited in the Data Bank. SSP matrices comparing the data status of Mediterreanean Ridge sites against the guidelines for target type "A: paleoenvironment" are included in the Appendix.

The Ionian transect sites (MR-1, MR-2, & MR-3) are now ready to drill. Sirte transect (MR-4, MR-5, & MR-6) is almost ready to drill except the heatflow data of MR-6 (which was requested because this is the site of a proposed fluid flow experiment). Napoli Mud Volcano site (MV-1) is ready to drill.

The recent Italian site survey cruise was unable to work on the Katia transect (sites MR 7, -8 and -9) because of clearance problems. SSP still needs high resolution SCS data for sites along this transect.

A major data package has been received for the Erastosthenes Seamount transect (ESM-sites), from a Russian/British cruise (Tredmar-3). This data package includes notes about the cruise results interpreted in an ODP context, describing potential sites and their data coverage. These sites are not the same as the sites in the most recent proposal addendum. Nonetheless, the overall strategy remains unchanged (to drill a transect northward from the peak of the Erastosthenes Seamount), so SSP felt it was possible to meaningfully evaluate the sites in the data package against the science in the proposal. The northernmost site in the proposal (ESM-4), located north of the inferred thrust fault separating the Erastosthenes Seamount from the Cyprus margin, has no equivalent in the Tredmar-3 data package, and thus remains unready to drill, as reported in the July '93 SSP minutes. For each of four potential sites on the seamount itself (ESM-1, ESM-1A, ESM-2A, ESM-3A), the Data Bank has received crossing seismic lines, a core log with lithology and dates, and a long range side-looking sonar record (Russian "OKEAN" system). Deeptowed side-looking sonar and accompanying excellent quality deeptow subbottom records were received for sites ESM-2A and ESM-3A. The Erastosthenes data package is now quite strong, with only a few small problems. The navigation plots accompanying the Tredmar-3 data are small and indecipherable in part. Sites ESM-1 and ESM-1A appear to lack 3.5kHz or equivalent data. For the shallowest sites (ESM-1 and -1a), some information about water currents should be provided to assess potential station-keeping problems. For all sites, in such a heavily trafficked area, information should be sought on potential manmade hazards on the seafloor (cables, dumpsites, etc.). Finally, a proposal addendum is needed to explain the science objectives and the operational parameters (i.e. penetration depth) of the newly-documented, data-rich sites.

Two of the proposed transects (Sirte and Katia) have a serious political problem now, because of anticipated difficulty obtaining clearance from the Libyan government. The lead proponent, A. Camerlenghi, wrote to the PCOM watchdog for Mediterranean Ridges, R. Kidd, suggesting three strategies for conducting a useful leg without the Katia and Sirte transects. Camerlenghi's option A includes the mud volcano site (MV-1) and the Erastosthenes transect. These data packages are strong, and ready to schedule from a site-survey readiness perspective. Option B includes the Ionian transect (ready to drill) and the Herodotus transect (sites MR-10 to -12). At the April '93 SSP meeting, the Herodotus transect data packages were judged "far from complete," and the sites were consequently dropped by the proponents. The data package for these sites has not been improved, and SSP cannot endorse scheduling these sites without more data. The proponents report that they may be able to divert survey shiptime in 1994 from the Katia area to the Herodotus area to collect the needed data. Option C, preferred by the proponents, is to find a diplomatic solution to the Libyan clearance issue, which they believe can be done because of experience of European ships working in the area.

SSP Consensus #6: Within the Mediterranean Ridge program, the mud volcano site, the Ionian transect, the Sirte transect, and the Erastosthenes transect (except ESM-4) have complete or nearly complete data packages. The data packages for the Katia transect and the Herodotus transect are lacking vital data types, most notably high resolution seismic reflection data.

5.3 Alboran Basin (323-rev3)

SSP Watchdog: Kastens

SSP Proponents: SSP liaison Kidd

Target Type(s): All sites are type B: Passive margin

At the July 1993 SSP meeting, sites ALB3 and ALB4 were considered ready to drill from an SSP perspective. Since the July meeting, additional seismic data has been submitted in support of Sites ALB1(new) and ALB2(new) (note that these two sites had been moved to accommodate safety considerations). The seismic data set is now complete for all sites, including the moved sites. In addition, Simrad bathymetric maps have been received for sites ALB1(new) and ALB-3. The Data Bank still lacks Parasound (or 3.5kHz) data across the two sites that were moved for safety. Revised matrices detailing the status of data at the two moved sites are included in the Appendix.

In our last several meetings, we have reiterated the need for a core in support of re-entry sites, and the desirability of heat flow data at all sites for safety review. A fax from proponent Menchu Comas, dated 29 Oct 1993, says that both of these data types are being collected on an ongoing Russian cruise, and that additional cores were collected in May '93.

Consensus #7: The strong data package for the Alboran Basin has been updated to take into account the repositioning of two sites (ALB1 and ALB2) in response to comments from the Safety Panel. A few small items of existing data (3.5kHz or equivalent across the repositioned sites, heatflow and coring information from recent cruises) remain to be deposited.

5.4 NARM nonvolcanic-II: return to Iberia (NARM)

SSP Watchdog: Mountain

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

Target Type(s): All sites type B: passive margin

Leg 149 across the Iberia margin was completed in May of this year, and preliminary results indicate that Sites 897 (IAP-4) and 901 (selected at sea) straddled the Ocean-Continent Transition (OCT). The nature of brecciated gabbroic rocks comprising basement at the intervening Site 900 (IAP-5) was far less clear. TECP met in September and at PCOM's request reviewed these results and assigned a study group to recommend a strategy for continued drilling along the Iberian margin. The JOIDES office made a draft copy of this report available to SSP during our meeting. The report stresses that results of shorebased analyses of samples from Site 900 will be critical to prioritizing more drilling off Iberia. A complex if-then strategy was outlined that built upon four possible basement types for Site 900: 1) lower continental crust, 2) Devonian ophiolite, 3) mafic underplating of extended continental crust, or 4) oceanic crust. If either types 1) or 2) are found, then Site 898 (IAP-2) will be deepened to recover basement rocks. If these are found to be continental, then 901 will be deepened; if 898 is oceanic, then a new site IAP-7 will be drilled on Lusigal MCS Line 12 on a basement high between Sites 898 and 900. If, however, basement at 900 is type 3), a mafic body, then drilling will begin with an along-strike offset from Site 900 in hopes of recovering true continental crust on the same

basement high. Then 898 will be deepened, and if mantle peridotites are found, IAP-7 will be next; if 898 is continental, then either IAP-3C or GAL-1 will be drilled. Last, if 900 basement is type 4), oceanic, then the first drilling will be to deepen 901. Then 900 will be re-drilled, washing to basement, to confirm its oceanic character (thought to be very unlikely.) Then IAP-6 followed by GAL-1 will be drilled.

These four scenarios involve future drilling at one or more of these sites: 898, 900, 901, GAL-1, IAP-3C, IAP-6, and IAP-7. Drilling Site 901 was approved by ODP/TAMU during Leg 149. Of the rest, all but the last two have been approved previously by SSP. Matrices comparing the data for sites IAP-6 and IAP-7 against the SSP guidelines for passive margin targets are included in the Appendix. IAP-6 is on Lusigal Line 12, but there is no crossing line in the Data Bank. Perhaps surveying during Leg 149 provided this important data; SSP considers the 3-D control on the basement high that such data would provide at this site to be very desirable. IAP-7 is an entirely new site for which we have no information other than it also lies on Line 12 on a structural high. Concerning additional "along-strike offset" drilling at Site 900 to attempt to recover continental crust, SSP points again to the critical need for 3-D control on the basement high at this site.

SSP Consensus #8: The majority of the sites in the plan outlined in the draft report of the TECP study group on NARM-nonvolcanic II (Iberia) were approved by SSP prior to leg 149. New sites IAP-6 and IAP-7 are on Lusigal Line 12, but no crossing lines are on file for either site. SSP emphasizes the importance of 3-D control on the basement targets at both IAP-6 and IAP-7.

6. POTENTIAL FUTURE DRILLING: SGPP

6.1 Gas Hydrate, Blake Ridge & Carolina Rise (423-rev, 423-add)

SSP Watchdog: Camerlenghi

SSP Proponents: none

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

Proponents have provided all the essential data requested by the Panel during the Summer 1993 meeting. Matrices comparing the available data against the SSP guidelines for target type A: paleoenvironment are included in the Appendix.

The Blake Ridge Transect (BHR Sites 1, -2, and -3) is covered by a high quality digital single channel seismic grid and a heat flow profile. 3.5 kHz data and core logs have been provided. Seismic velocity data have been provided through OBH results. The transect is considered ready for scheduling. A minor improvement of the package suggested by SSP would be to provide a new (corrected) color amplitude display (with corrected time scale) of the seismic line on which the transect is located in order to outline lateral variability and polarity of the hydrates reflectors.

The Carolina Rise transect (CR Sites 1, and -2) is covered by high quality digital single channel seismic grid and a heat flow profile. 3.5 kHz data and core logs have been provided. Seismic velocity data will be provided through OBH results. Although Site CR-1 is not on a crossing between two seismic lines, the 3-D structure of the area is well imaged by the seismic grid, and no request to move the site location is made. The transect is considered ready for scheduling. Minor improvements of the package suggested by the panel consist in the following: Provide color amplitude display of the main seismic line on which the transect is located in order to outline lateral variability and polarity of the hydrates reflectors. In addition, OBH data are awaited.

The Cape Fear Diapir Transect (CFD Sites 1, -2, -3, and -4) is covered by only three seismic lines, and only two heat flow measurements are available from the top of the diapir. 3.5 kHz data and core logs have been provided. Seismic velocity data are not

available. However, a Side Scan Sonar survey has been recently collected, and the panel believes location of the 4 shallow sites (50 m) can be identified on the basis of the available data. The transect is considered ready for scheduling. Minor improvements of the package suggested by the panel consist in the following: Provide results of side scan sonar survey and deep sea camera observations.

SSP Consensus #9: SSP considers the Gas Hydrates program ready for scheduling from a site survey perspective. Only minor improvements of the data package (additional seismic displays, provision of existing OBH velocity data, provision of recently collected side-looking sonar and sea floor photographic data) are suggested by SSP.

6.2 Bahamas Transect (412-add2)

SSP Watchdog: Sibuet

SSP Proponents: none

Target Type(s): some sites A: paleoenvironment; others B: passive margin

At the April SSP meeting, we stated that a grid of seismic lines rather than a single crossing would be required because of the anticipated three-dimensional nature of the prograding sequences. In addition, we requested observational evidence that the hypothesized discharge and recharge zones exist and have been located (e.g. heatflow surveys, high resolution side-looking sonar and nearbottom towed 3.5kHz images to identify the potential diagenetic surficial sediments associated with fluid discharge, and/or visual images to document possible vent-associated benthic life). We classified the program against the guidelines for target type "A: paleoenvironment"; however the proponent subsequently suggested to the watchdog that some of the deeper penetrating holes should actually be target type "B: passive margin" analogous to the New Jersey margin sites.

The Bahamas Transect program was not discussed at the July SSP meeting because no data package existed at that time. After the program was highly ranked at the fall thematic panel meeting, a data package was submitted comprising an MCS line across the proposed sites and additional MCS lines nearby, a summary of exisiting SCS lines, and a report on physical oceanographic conditions. In addition, there are two wells on the shelf updip from the proposed ODP sites, for which lithologic logs are provided in the proposal. A safety panel prereview did not anticipate serious safety problems, but encouraged the proponents to move the shallowest site deeper than 200m water depth, which the proponents will do. From a site survey perspective, the data package lacks high resolution seismic data, cores at the sites, 3.5kHz data, and data in support of the fluid flow objectives. SSP matrices evaluating the data package are included in the appendix.

The proponents report that they have a funded cruise in spring of 1994 that will collect a high resolution MCS grid with Delph24 system, single channel seismic lines across the proposed drill sites, 3.5kHz echosounder data across the proposed drill sites, and piston cores from the drill sites. In addition, they plan to obtain and submit to the data bank existing SCS data collected by the USGS. In support of the fluid flow objectives, they report that they plan to run a side-looking sonar survey in the spring of 1994, and conduct a heat flow survey in collaboration with Dr. A. Fisher. If successful as planned, this cruise will complete the data package for the Bahamas margin drilling program.

SSP consensus #10: The following items are in the Data Bank: MCS line across the proposed sites; seven additional, nearby MCS lines; detailed oceanographic reports on currents, etc. There also exists a grid of USGS SCS lines. At present, all vital data are not available. Acquisition of vital (high-resolution SCS, 3.5 kHz, cores at sites) and recommended (side scan and heatflow) data is planned and NSF funded

for spring 1994. If these data are collected as planned and deposited in the Data Bank, the data package could be complete by the July 1, 1994 data deadline.

6.3 Cariaco Basin (434)

SSP Watchdog: Kastens

SSP Proponents: none

Target Type(s): A: paleoenvironment

This is well-presented proposal for a single APC hole in 920m of water in a silled basin off the coast of Venezuela. It's a classical paleoceanographic type proposal, with objectives related to recovering high resolution information on later Quaternary paleoenvironmental change in the tropical Caribbean and western Atlantic region. The sediments are organic carbon rich and varved.

A matrix comparing the data status of site Cariaco-1 against the SSP guidelines for target type A: Paleoenvironment is presented in the Appendix. No data has yet been submitted to the ODP data bank. However, we infer from figures in the proposal that all vital data types (high resolution seismics, cores, and 3.5kHz) exist in adequate quantity and quality to support the proposed science. A grid of SCS, 3.5kHz, magnetics and gravity lines covers the entire Cariaco Basin, with a 5km track spacing in the area of interest. The proposed site lies at an intersection of two of these lines. The proposal illustrates shipboard analog seismic profiles of the two lines across the site. The quality appears to be good. The seismic data were recorded digitally, but have not been processed.

In addition, more than 100 cores (box, piston and giant gravity) have been taken in the basin. It's not quite clear whether there was a coring station exactly at the proposed ODP site--but in fact it doesn't matter; SSP is convinced that the depositional environment has been well defined by the very dense network of surrounding cores. The proposal presents detailed sedimentological, paleontological and geochemical logs for one of the nearby cores.

Because the proposed drill sites are in relatively shallow water where station keeping could be a problem, the proponents should provide any existing information on surface and/or bottom water currents in the area. In addition, because the site is close to land, the proponents should look into the possibility of man made hazards, such as dumpsites or submarine cables.

SSP Consensus #11: No data has yet been submitted to the ODP data bank in support of drilling in the Cariaco Basin. However, we infer from figures in the proposal that all vital data types (high resolution seismics, cores, and 3.5kHz) exist in adequate quantity and quality to support the proposed science. The proponents are urged to submit a data package to the ODP Data Bank at their earliest convenience.

7. POTENTIAL FUTURE DRILLING: LITHP

7.1 Return to 735B, Atlantis II FZ (300-rev)

SSP Watchdog: Srivastava

SSP Proponents: SSP/PCOM liaison H.Dick

Target Type(s): Offset drilling of tectonic window

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

At our July 1993 meeting we were concerned about the lack of regional geological and geophysical information of a sort suitable to ensure that the scientific objectives of this

proposal can be successfully accomplished. In particular, we feel that a geological map of the surface of the wavecut platform can and should be prepared (using such tools as submersible, side-looking sonar, towed camera, ROV, rock drill, precisely-targeted dredging) to document the scale of lateral variability of the phenomena planned for sampling in the transect of shallow holes. The proponents had made a submission to NSF for funding for such a cruise to be undertaken in 1994, where a deep-towed sidescan sonar, magnetometer and ROV (remotely operated vehicle) survey over the region together with some dredging was to have been carried out. We understand that this proposal was unsuccessful in its initial attempt to get appropriate funding but is being evaluated again. Such a program would indeed supply the much needed information not only for locating the shallow sites C,D,E,F in this region, but also the regional information of this region so that the drilling results obtained if site 735B is to be deepened can be properly utilized.

SSP realizes that a case has been made for deepening the existing 735B hole without additional site survey work. SSP still maintains its concern expressed during its July meeting about carrying out such a program and reiterates this concerns here. Considering the problems which have been encountered to date in deepening basement holes on other ODP legs, and keeping in mind how much of Leg 118 was consumed in site-survey activities, SSP would not favor bringing the ship to this remote area until the data are in hand to document shallow sites C,D,E and F as alternates. In addition, SSP notes that a near bottom seismic refraction experiment before deep drilling could provide valuable information about vertical variability in the rock types, about the depth to Moho, and about the extent and dip of the postulated shear zones.

A limited data package has been submitted which was collected for Leg 118. SSP urges proponents to deposit all existing data with the data bank as soon as possible. Matrices evaluating the sites against the draft SSP guidelines for Offset Drilling are included in the Appendix.

SSP Consensus #12: SSP recommends acquisition of additional data before drilling on the Atlantis II fracture zone (area of site 735B). For the array of shallow sites, we recommend data acquisition aimed at creating a surficial geological map of the wave cut platform (through some combination of submersible mapping, ROV work, side-looking sonar, towed camera sled, rock drill, precisely located dredging, etc.) to define the horizontal scale of the phenomena of interest. In addition, a near bottom seismic refraction experiment would be valuable before deepening 735B.

7.2 Sedimented Ridges II (SR-DPG)

SSP Watchdog: permanent: Hinz; acting: Srivastava

SSP Proponents: none

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

A second drilling leg is requested in the revised proposal SR-rev2 for drilling a set of Holes on the Median Valley of the northern Juan de Fuca Ridge and Escanba Trough on the southern Gorda Rise. Four holes have been suggested for drilling, through and adjacent to Bent Hill massive sulphide deposit.

At our July meeting two concerns were made: (a) about the lack of knowledge of thickness of the sulphide deposit which has to be drilled through in order to achieve the drilling objective of drilling into the basement.and (b) the difficulty which may be experienced in drilling through thick deposit of sulphide if the column of cuttings becomes too heavy to clear with the Resolution's limited mud circulation. These concerns were

communicated to the proponents by the watchdog (Karl Hinz). The proponents have responded to our concerns.

We are glad to hear that the proponents are well aware of these problem and have responded very constructively. They feel that no kind of measurements is going to give an absolute answer to the question of thickness of sulphide at their prime site. They further feel that one of the important results to be learnt from drilling a hole here would be to find the thickness of this deposit. However,they have done some model calculations, based on magnetite contents in the sulphide cores from Leg 139, to simulate the magnetic anomalies observed in their deep towed recordings. Their estimates suggest that the sulphide deposit to be about 180 m at the most at this site. In addition, a seafloor EM survey was conducted during a cruise on R/V Melville. The observations are being analyzed and are not ready yet. According to the proponents it is unlikely that these will provide tight constraints on vertical extent of the sulphide deposit at this site. Similarly onboard and on-bottom gravity measurements have been done and these are being processed to provide some constraints on the thickness of the sulphide deposit. SSP encourages the proponents to deposit any reports dealing with the estimates of the sulphide deposit at the proposed drill site at the data bank.

About concern (b) the proponents feel from the drilling at site 856H during Leg 139 that the problem encountered was not caused by sulphide chips rather from collapse of the upper part of the hole. According to them the problem can be avoided by taking due precautions during drilling.

Additional survey work was planned to be carried out during a USGS cruise in summer of 1993 using side scan sonar, but the cruise had to be canceled due to the loss of this equipment during another cruise. They hope to reschedule this cruise some time later but it is not firmed up as yet. On another cruise, the Canadian ROV was planned to be used to investigate the Median Valley but bad weather prevented its use. However, ALVIN dives at the Median Valley to retrieve data from the instrumented drill hole were fairly successful. According to them the CORK'ed drill hole 858G has thermally recovered but the high temperatures have resulted in failure of the thermister string and the drill hole seal. The data package was retrieved and its contents are being analyzed. The possibility exists for another cruise to this region with deep towed instruments.

SSP comends the proponents for their efforts in collecting all relevant data for this proposal and wish them best of luck in their planned work.

SSP Consensus #13: Most necessary site survey data for Sedimented Ridges II remains in the package prepared for Leg 139. However, SSP would like to see the additional data collected in this region after Leg 139 to be deposited at the data bank at the earliest possible time.

7.3 VICAP/MAP (380-rev3/add3)

SSP Watchdog: Scrutton

SSP Proponents: SSP liaison Kidd is a proponent for MAP

Target Type(s): all sites type "G: topographically elevated feature" plus additional data requirements as defined a April '93 SSP meeting.

Only VICAP was discussed as MAP had been declared ready to drill at a previous SSP meeting. At the July meeting, SSP found VICAP difficult to evaluate, because the newly arrived data package did not correspond even approximately to the sites in the proposal. A proposal addendum and site-survey forms for revised site locations have been submitted over the summer. The site numbers used in this writeup refer to the newly arrived Site Summary forms; these are not the same sites or the same site summary forms as are in the FY'95 drilling prospectus.

There are six first priority sites, with a total of 3600m penetration, and four second priority sites. Most sites are located on crossing METEOR 24 high-resolution MCS profiles, with two (sites 7 and 8) being on METEOR 16 DEEP MCS Profiles. Old VEMA profiles are used as crossing profiles at sites 4, 3a and 8. There is now a large amount of data available with the prospect of more being collected on upcoming cruises, and METEOR 24 data has been arriving in the Data Bank over the summer. The METEOR 24 MCS profiles were collected with a 150m streamer and can be considered as high-resolution SCS, a vital data type in this setting. Parasound data is in the Data Bank for all sites bar 4 and 8.

There are still a number of problems with data quality or data not yet submitted by the proponents. There is no good high-resolution seismic data for sites 7 and 8, and there is a need to improve the SCS quality at sites 5 and 6 where drilling targets, as stated in the proposal and site summary forms, are not visible amongst the diffraction patterns. Site 5, located in the offshore continuation of a canyon, should have a small network of crossing lines. Further, some data requested as essential to this proposal by SSP in April, 1993 is not yet in the Data Bank. Side-scan sonar or swath bathymetry are required to show that sites avoid slumps and debris flows, and cores are needed at sites that might require a re-entry cone. Velocity data is required to allow the confirmation of target depths. Gravity data is also a vital data type in this case to facilitate the interpretation of the deep structure, and meet the tectonic objectives of the proposal. All or most of these data exist but are not in the Data Bank. Other items required by the Data Bank are a good quality navigation chart with all profiles with SP numbers and site locations shown, information on bottom current activity at shallow-water sites, and a consistent site numbering scheme on the submitted profiles.

SSP Consensus #14:. The MAP portion of VICAP-MAP is ready to drill, and there is now a good deal of supporting data for the VICAP portion as well. Considering the VICAP proposal on a site-by-site basis, there are still a number of data gaps in the data in the Data Bank, and at two sites (VICAP-5 and -6), the drilling targets, as stated in the site summary forms, are not visible on the seismic data. Some of these data gaps could be filled by existing data or data to be collected in the near future.

7.2 NARM volcanic II (East Greenland & Voring)

SSP Watchdog: Scrutton

SSP Proponents: Srivastava and Hinz were on the NARM DPG

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

Two alternative scenarios for this leg are now on the table. Since the July 1993 SSP meeting the importance of the EG66 transect seems to have diminished.

Scenario 1. At the EG63 transect it is now proposed to drill newly proposed sites 5, 6 and 7 landward of EG63-1 to study the deformation and extension of continental lithosphere close to and below the feather edge of the seaward-dipping reflectors. The geochemistry of the early volcanics may also yield constraints on the processes associated with continental break-up. To make up a full leg of drilling, EG63-3 (previously approved for NARM-VI) would be included in this scenario. All or most necessary site-survey data for these sites exists from cruises in 1992 and 1993, and most have been submitted to the Data Bank; unfortunately, because of time constraints, this data package was not reviewed on a site-by-site, datatype-by-datatype basis at this meeting.

Scenario 2. There has been little or no change since July 1993 in the site survey position with respect to Voring Margin sites 3, 5 and 6. At that time, SSP expressed its concern about (a) the lack of any seismic data in the Data Bank crossing site VM-5, although one MCS line across the site does exist, (b) the lack of crossing lines or seismic

grid at sites VM-5 and VM-6, in settings where the structure could be expected to be three-dimensional, and (c) the difficulty of identifying basement on the seismic line that does cross site VM-6, a site where basement is the target. The proponents now suggest that the collection of a crossing seismic profile at site 5 by Norwegian universities or the Norwegian Petroleum Directorate is possible. For VM6, it is argued by the proponents that the site survey data is adequate but there is no new evidence in the Data Bank in the form of more fully processed seismic data or maps of structure to confirm this.

SSP Consensus #15: SSP discussed two possible scenarios for NARM-VII drilling. The EG63 transect has benefited from recent cruises designed with site survey criteria in mind, and according to the proponents, all requirements have been fulfilled; however, SSP has not evaluated the full data set yet. The Voring margin data package lacks critical items: (a) no seismic data is in the Data Bank for site VM-5, although one line exists, (b) basement is not identifiable with confidence on the seismic line across VM-6, and (c) neither VM-5 or VM-6 has crossing seismic lines or a grid of seismic lines, although the structure can be expected to be three-dimension in this marginal setting.

8. POTENTIAL FUTURE DRILLING: OHP

8.1 North Atlantic Arctic Gateways II

SSP Watchdog: permanent: Hinz; acting: Srivastava

SSP Proponents: none

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

A proposal for NAAG II was put together during a special meeting held in Bergren in September 1993. The meeting was attended by some members from DPG , representatives from OHP and cochiefs from Leg 151 .This proposal addresses three important questions which could not be answered from Leg 151 drilling . These are: (a) the onset of glaciation on Yermak Plateau, (b) the nature of ocean exchange between the Greenland and Arctic Oceans in pre-glacial times and (c) the lack of carbonates in the site drilled north of Iceland Plateau in the Grenland Sea. The following sites are proposed in the new NAAG II proposal. (1) Redrill Site 907 (ICEP-1) with two extra holes, (2) Drill ICEP-3 to provide a gradient to deeper waters and to warmer waters in the east, (3) Drill Site YERM-1 to basement (if ice-free) to document onset of glaciation and exchange through Fram Strait, (4) Drill Site EGM-4 to document onset of glaciation on Greenland, (5) Drill Site SVAL-1 off Svalbard to document Svalbard/Barents ice sheet history which appears to be important for evolution of 100k cycles, (6) Drill four sites on the drifts south of the Iceland-Scotland Ridge to address Miocene-Pliocene climate objectives, including water mass formation history, origin of Heinrich layers, correlations to sub-Milankovitch variations in Greenland ice cores, etc.

The NAAG II proposal contains 10 sites altogether where drilling is proposed to be carried out. This includes two sites where drilling has been carried out in the past (ODP 907, DSDP116), and a number of sites already approved for NAAG-1 (leg 151). Except for site DSDP 116, most data from the newly proposed sites are in the data bank. Matrices from each new site are enclosed in the appendix. Following is a brief summary from each new site.

SVAL-1: The site is located off Svalbard in water depth of 200m and lies in a region where a number of mud diapirs can be seen. It is therefore likely that this site may pose some safety problem. Furthermore, considering that the objective of drilling here is to obtain as continuous record as possible it would seem desirable to move this site to an area free from mud diapirs. It is realized that additional data is to be collected during 1994 and a final site selection could perhaps be carried out at that time. All vital data are in the data bank, but

some "desirable" types of existing data (side-lookng sonar, bathymetry) remain to be deposited.

Fenni and Gardar Drift: One site on Gardar and two sites on Fenni drift have been proposed. The data supplied to the data bank from these sites seem to pose no foreseen problems. 3.5kHz data need to be deposited to the data bank. Additional seismic lines which exist in this region that will be useful during drilling should be supplied to the data bank (e.g. lines 1 to 6 at Fenni Drift). Also some side-scan data seem to exist at these sites; these data should also be supplied to the data bank.

NAMD-1 : No data has been supplied from this site to the data bank. Even though this site was drilled on Leg 12 of DSDP it is essential that data pertaining to this site be supplied, to evaluate the context of the site with respect to the scientific objectives of the present proposal. The data bank did not exist at the time of Leg 12, and thus no data package exists to be carried forward from the older leg.

One of the recommendation which co-chiefs made from Leg 151 concerns the availability of all data from ice infested sites on board the drill ship in case a quick decision has to be made for alternate site selection because of ice problem. This data should include not only the data at the sites but also all cross lines in the region. SSP therefore recommends that due consideration be given in selecting alternate site to SVAL-1 as well as in supplying all existing data and those to be collected in 1994 in this region to the Data Bank.

SSP CONSENSUS #16: Many of the sites for NAAG II drilling were already approved for NAAG-1 (Leg 151). Except for the NAMD-1 site, all the newly selected sites for NAAG-1 have complete or nearly complete data packages. Apparent mud diapirs around the site off Svalbard (SVAL-1) may pose some safety problems. NAMD-1 has no data package at all.

8.2 Mediterranean Sapropels (391-rev2)

SSP Watchdog: Kastens

SSP Proponents: SSP member Camerlenghi and SSP liaison Kidd have been involved in site surveys for this program.

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

At the July '93 SSP meeting, sites MedSap 2C, 4A, 4C, 5, and 6A were judged to be ready for scheduling from the perspective of site-survey readiness. SSP matrices comparing the data status of each site with the guidelines for target type A: paleo-environment are in the Appendix.

Of those data packages that were not previously judged to be ready, the data packages for MedSap 1C and 2B have been greatly strengthened by the receipt of new data from cruise Tredmar-3 aboard the R/V Gelendzhik in June/July 1993. For both sites, confusingly, there is a 5 to 10 mile discrepancy between the site lat/long/water depth in the proposal and in the data package, which needs to be resolved. We have evaluated the sites according to the more data-rich of the two positions: in the case of MedSap 1C that is the proposal position; in the case of MedSap 2B that is the data package position. The Tredmar-3 data package also makes frequent reference to a site MedSap 1D, which does not correspond to any site in the proposal. An email from proponent Zahn to watchdog Kastens said that the scientific party of the Gelendzhik investigated site 1D in hopes that it might have a more complete sapropel section than MedSap 1C; it did not, and they therefore still favor Site 1C. SSP did not evaluate site 1D, since it's not in the proposal and it doesn't seem to be in favor with the proponents. For sites MedSap 2B and 1C, the Data Bank has received Tredmar-3 seismic data, near-bottom towed side-looking sonar (Russian "MAC" system) data, long-range side-looking sonar (Russina "OKEAN" system) data, excellent quality subbottom profiles from a near-bottom towed vehicle ("MAC"), and

logs for cores in the site vicinity. The data packages for Sites MedSap 1C and 2B are now complete, although we would like a more legible track chart for the Tredmar data.

The data package for site MedSap 3, on the Calabrian Ridge, has been strengthened by the addition of newly collected seismic data from a Sept. 1993 cruise of the Urania. The data package for MedSap3 is now complete.

As noted in our previous minutes, SSP unenthusiastically approved MedSap 7B, which is a reoccupation of DSDP site 121. We encourage the proponents to develop alternative sites, where a more complete Plio-Quaternary stratigraphy might be found.

SSP Consensus #17: All vital data and most existing desirable data for all Mediterranean Sapropels sites is in the Data Bank and of good quality. The program is ready to schedule. We encourage the proponents to develop alternative sites at the western end of the transect (Alboran Basin) where the stratigraphic section might be more complete than at the proposed site MedSap 7B (reoccupation of DSDP 121).

8.3 NW Atlantic Sediment Drifts (404)

SSP Watchdog: Mountain

SSP Proponents: none

Target Type(s): all sites type "A: paleoenvironment"

No new data concerning NW Atlantic Sediment Drifts has been deposited in the Data Bank since our July meeting, at which time we reported a very sparse data set. Matrices comparing the data status of each site against the SSP guidelines for target type A: Paleoenvironment are presented in the Appendix.

Site BR-1 on the North Bermuda Rise is short of having an adequate set of survey data (see SSP matrix in Appendix). To enhance the value of drilling at this site, this location must be placed in a stratigraphic context that only regional seismic and 3.5 kHz profiles can provide. Through written correspondence, the lead proponent has indicated that he knows of additional data, but thus far he has been unable to locate and deposit them.

To date, the Data Bank has received no data in support of the Blake Ridge sites BBOR-1 through -8 (except for a page sized shiptrack). However, proponents Keigwin and Flood are presently at sea on the *Knorr* collecting digital 3.5 kHz records and large-diameter piston cores. These are required data types for drilling in this setting. The proponents are reminded that sites selected with these new data must also fall on good-quality, high-resolution seismic lines, and that those lines must be deposited in the Data Bank to be reviewed by SSP and PPSP. If any aspect of sites BBOR-1 through -8 is revised due to results of the *Knorr* cruise in Nov '93, the proponents are urged to prepare these revisions and deposit relevant data according to the Data Bank guidelines as soon as possible.

SSP Consensus #18: Very little data has been deposited in support of NW Atlantic Sediment Drifts drilling. The data package for Site BR-1 on the Bermuda Rise lacks adequate navigation and adequate high resolution SCS data. For the Blake Ridge sites, proponents Keigwin and Flood are presently at sea collecting digital 3.5kHz and large-diameter piston cores. However, it is unclear whether the data set for the Blake Ridge sites will be adequate even after the present cruise because of the apparent lack of high-resolution seismic data.

8.4 California Margin (386-Rev3,422-Rev,386-add)

SSP Watchdog: Camerlenghi

SSP Proponents: none

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

Following the last meeting (Lamont July '93), SSP acknowledged the effort put forth by proponents of two drilling proposals in merging the programs and in the submission of a substantial data package. However, at that meeting we found a consistent lack of 3.5kHz and coring data in the data package, and also that some of the seismic lines were of poor quality. Since SSP believed that much of the data missing from the package might exist in such a data-rich field area, the Panel encouraged proponents to continue their effort and provide the necessary information before November 1st, 1993. However, no additional data have been submitted since our last meeting, and the data package remains seriously deficient at this time.

The panel was informed that cruises for the acquisition of new data on the proposed site location have been funded, and should occur in 1994. The panel recommends that proponents, during the planning of new data acquisition, take into consideration the SSP requirements for target type "A" (Paleoenvironment) drilling programs. For target type "A", high resolution single channel seismic lines, 3.5 kHz profiles, and cores are considered vital data. Crossing seismic lines over the site will be required only for sites located on structures with lateral variability. For sites located at water depth < 1000 m, additional 3.5kHz data, high quality high-resolution seismic grids, and side scan sonar data would be valuable to evaluate the possible presence of shallow gas. In addition, the possibility of man-made hazards on the seafloor near densely populated areas should be considered.

SSP Consensus #19: No data have been submitted in support of California margin drilling since the July SSP meeting, and the site survey package remains largely incomplete. New data will be acquired by the proponents in 1994.

9. OTHER BUSINESS

9.1 SSP guidelines

The draft of Site Survey Guidelines for Tectonic Windows into Oceanic Crust ("Offset Drilling") was discussed. This document was first formulated in the spring of 1992, with input from the Offset Drilling Working Group. A draft document was included as Appendix 13 in the minutes of the April 1992 SSP meeting, and the draft was circulated to interested parties for comment. SSP has been using these draft guidelines for the evaluation of Hess Deep, MARK, and Vema Fracture Zone drillsites. After more than a year of experience with these guidelines in the context of real data sets, it seems time to upgrade these guidelines from "draft" status, and publicize them in the JOIDES Journal.

The guidelines, as they stood after our discussion at this meeting, are included as Appendix B to these minutes. The format of these guidelines differs somewhat from that of the guidelines for other target types, in large part to avoid the (X)* category of the older guidelines, which has caused much confusion among proponents.

Changes relative to the draft put forward in the April 1992 SSP minutes are as follows. (a) 3.5kHz echo sounder or equivalent is now categorized as "may be required." In the April '92 draft, 3.5kHz data was a required data type, to be consistent with all other target types in the older guidelines. A footnote in the current draft clarifies that this data type (along with high resolution SCS) would be required in the case where sites are proposed to spud into sediment pockets. This is consistent with the change in status of 3.5kHz data for barerock targets put into effect at SSP April 1993 meeting. (b) Side-looking sonar (near-bottom towed) is categorized as "recommended but may be required." This reflects a split of opinion among SSP members between those who thought that this data type should be required, and those who thought it should not be. The intent is for SSP to decide on a proposal by proposal basis, or even a site by site basis, whether this

data type is necessary to understand the tectonic environment of the drill sites (we now follow this procedure for data types categorized as (X)* in the guidelines for other target types.) (c) Magnetics data is required. The reasoning here is that a regional magnetic survey will be needed to determine the age of the oceanic crust, the plate kinematic history of the site, and the position of the site relative to paleo-ridge-segmentation.

[Editorial note: while finalizing the Offset Drilling guidelines matrix, I realized that the guideline for cores (none required) in the existing draft minutes is not consistent with the SSP guidelines for other target types. So I have changed the guideline for cores to read "may be required" with a footnote stating that a core will be required if the site is planned to spud into a sediment pocket, and it will be a re-entry site. This change relative to the draft guidelines in the April '92 minutes was not discussed at the SSP meeting. It is under discussion by SSP at present by email. KAK]

9.2 Feedback to proponents

Action Item #6: All panel members to write to the lead proponent of programs on which they are the watchdog, informing them of the sense of the meeting and enclosing the relevent section of the draft minutes.

9.3 Panel membership

SSP has one vacancy for a US member following the ending of the term of Dick von Herzen. OHP has officially requested through their minutes for a scientist from the ocean history community to be added to SSP. We discussed the disciplinary balance of the panel in light of this request, and recognized that we had lost a paleoceanographer about a year ago through off-rotation of a foreign member, and had not replaced that expertise. We decided to fill our present vacancy as requested by OHP. A list of three candidates was compiled, all with expertise in paleoceanography/paleoenvironment as well as some experience with survey data.

Action Item #7: SSP Chair to contact three candidates for the SSP vacancy, and invite them to have their names put forward for consideration by PCOM; then to forward the names of the agreeing candidate(s) to PCOM.

9.4 Next meeting

Jean-Claude Sibuet has volunteered to host the spring '94 SSP meeting in Brest, France. The meeting must be at the end of March or the beginning of April to fit between the last of the spring thematic panel meetings and the PCOM meeting. Some panelists wished to try meeting on Thurs/Fri/Sat or Sun/Mon/Tues to take advantage of cheaper airfares for Saturday night stay, and to avoid cutting up the week so badly for panel members with teaching responsibilities. Some members anticipated problems travelling over April 1, the change of the fiscal year in some countries.

Action Item #8: SSP Chair Kastens to poll the absent members for constraints on dates for spring meeting, to select a date, and to request permission to meet in Brest.

Appendix # A

Data Sent and Received by the Data Bank from August to November 1993

North Barbados Ridge, Proposal 414

-From T. Shipley (The University of Texas at Austin): Safety Package - Leg 156. Also, color figures, seafloor and basement structure map; décollement structure and ampl. map.

Gas Hydrates, Blake Ridge, Carolina Rise, Proposal 423-R

-From C.K.Paull (University of North Carolina, Chapel Hill): 3.5 and piston core data, age table, seismic lines

Atolls & Guyots, Proposal 335-R

-From TAMU: Legs 143 and 144: microfilms of seismic reflection, bathymetry and magnetics; tapes of underway geophysics and Informal Report from JOIDES RESOLUTION cruises 143 and 144.

Alboran, Proposal 323-R3

-From M. Comas (Instituto Andaluz de Geologia): Safety Package.

Amazon Fan, Proposal 405-R

-From R. Flood (SUNY, Stony Brook): Safety Package.

Ceara Rise, Proposal 388-R

-From B. Curry (WHOI): safety package and page-size seismic sections of EW9209 for Ceara Rise.

Vema Fracture Zone, Proposal 376-R2

-From K. Kastens (LDEO): Seafloor photo coverage, Camera tow report, two rolls of camera-tow films, navigation, core descriptions, SCS, hydrosweep bathymetry and cruise report from EW9305 cruise.

MARK, Proposal 369-R2

-From J. Karson (Duke University): 1985 Site Survey Report.

Equatorial Transform Margin, Proposal 346-R3

-From J. Mascle (Laboratoire de Géodynamique Sous Marine): MCS, SCS, 3.5 kHz, bathymetry and navigation data,
and logs and locations of Kullenberg cores KS 11, 12, 14, 6, 7, 8 from Equamarge I and II cruises.

Med Ridge, Proposal 330

-From A. Camerlenghi (Osservatorio Geofisico Sperimentale): parasound, hydrosweep bathymetry and navigation from Meteor 25-4 cruise; MCS, SCS sidescan MAK and navigation from Gelendzhik 1993 cruise; navigation and 3.5 kHz for Sonne 30 cruise and heat flow report.

NAAG-II, Proposal 406

-From D. Oppo: (WHOI): navigation, SCS and annotated percent carbonate records from EW9302 cruise and R/V Tydeman NA 87/4 cruise (Bjorn/Gardar Drift and Feni Drift areas).

-From P. Manley (Middlebury College): MCS profiles from EW9302 cruise.

NAAG II, Proposal 416 (Svalbard)

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

VICAP-MAP, Proposal 380-R3

-From R. Rihm (GEOMAR): navigation, parasound data, SCS and MCS profiles from Cruise Meteor 24/1.

Hatton-Rockall Basin, Proposal 372-Add2

-From B. Larsen (Geological Survey of Denmark): navigation and copies of high resolution MCS data.

Bahamas Transect, Proposal 412

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

NARM II

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

Med. Sap., Proposal 391-R

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

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

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

TAG, Proposal 361-R2

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

Return to Site 735-B, Proposal 300-R

H. Dick (WHOI): navigation for RC2709 Site Survey cruise; magnetic anomaly identifications and seabeam map for Atlantis II F.Z.; seabeam map and magnetics for Site 735-B region and seabeam map of conjugate site.

Appendix B

11/23/93

Site Survey Guidelines for
Tectonic Windows into Oceanic Crust ("Offset section drilling")
November 18, 1993

1. Deep Penetration SCS	no
2. High-resolution SCS	May be required [1]
3. Multichannel Seismic	3 or 5a recommended [2]
4. Grid of Seismic lines	See data type 3
5a. Refraction (surface source)	3 or 5a recommended [2]
5b. Refraction (near-bottom source & receiver)	may be useful [3]
6a. 3.5 kHz echo sounder or equivalent	May be required [1]
6b. 12 kHz echo sounder	no
7. Swath bathymetry	Required
8a. Side-looking Sonar (shallow-towed)	Recommended
8b. Side-looking sonar (near-bottom towed)	Recommended, but may be required for specific sites
9. Photography/video	Required [4]
10. Heat flow	no
11a. Magnetics	Required [5]
11b. Gravity	Recommended
12. Sediment core	May be required [1]
13. Rock sampling	Required [6]
14. Water current data	May be required [7]
15. OBS microseismicity	May be useful [8]

[1] Shallow penetration, high-resolution single-channel seismic data and 3.5kHz data will be required if sites are proposed to spud into sediment pockets. If a re-entry site is planned in a sediment pocket, a core near the site is required to verify the conditions for setting the re-entry cone.

[2] A regional MCS or OBS-refraction survey is recommended to determine the regional crustal structure before dismemberment. It is not important to have crossing seismic lines exactly over the proposed site.

[3] Near-bottom source/near-bottom receiver seismic refraction is a new experimental technique that holds great promise as a site survey tool for tectonic windows. SSP is following the development of this technology with great interest, and may upgrade this data type to "recommended" or "required" at a future date.

[4] Visual observations (submersible, towed still camera, towed video camera) are required to determine the detailed geological setting of the site, and to select a site for emplacing a bare-rock drilling guidebase.

[5] A regional magnetic survey is required to determine the age of the oceanic crust and the plate kinematic history of the site.

[6] A closely-spaced, precisely positioned suite of samples is required in the immediate vicinity of the drillsites, as well as a less-dense suite of samples over a broader region. Samples must be analyzed for geochemical /petrological and structural characteristics.

[7] Data on water currents will be required for sites in shallow water or wherever swift currents are anticipated.

[8] Microseismicity determined from ocean bottom seismometers is useful in regions where the faults that form the tectonic window are still active.

SSP agenda item 4.4

ODP Site Survey Worksheet: Topographically Elevated Feature

Proposal name: Vema Fracture Zone	Proposal #: 376-Rev2
Site: VE-3 (DCS test)	Proposed total depth (m): 500
Area: Limestone cap of trans. ridge	Proposed sed. penetration (m): 250
Lat/Long: (10°43'N,44°22'W) or (10°37'N,43°39'W)	Proposed basement penetration: (m): 250
Water depth: 600 m or 1500 m	APC/XCB/RCB/re-entry?
Who filled out worksheet? D. Toomey	Date of worksheet: Nov. 9, 1993 (adapted from earlier worksheet by K. Kastens)

This site has been assessed under the Site Survey guidelines for Target Type "G", defined as "Elevated features with widely varying sediment thicknesses, e.g. seamount, fracture zone ridge, plateau." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable, but may be required in some cases	not required for VE-3		
2	High resolution SCS	vital		yes	yes
3a	MCS	desirable, but may be required in some cases	not required for VE-3		
3b	Seismic velocity determination	desirable, but may be required in some cases	Report by Vera, Lige, & Bonatti (10-92)	yes	yes
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	two crossing lines available for selection of site; detailed grid desirable to map limestone cap	yes	yes
5	Refraction	desirable, but may be required in some cases	not required for VE-3 Report by Vera, Lige, & Bonatti (10-92)	yes	yes
6	3.5 or 12 kHz echosounder	vital		yes	yes
7	Swath bathymetry	desirable, but may be required in some cases		yes	yes
8	Side-looking sonar	desirable, but may be required in some cases	not required for VE-3		
9	Photography or Video	desirable, but may be required in some cases		yes	yes
10	Heat flow		In transform valley floor (reprint)	yes	yes
11a	Magnetics	desirable		yes	yes
11b	Gravity	desirable		yes	yes
12	Cores: paleoenvironment / geotechnical	desirable, but may be required in some cases; vital for re-entry sites	using either cores or dredge samples, address degree of lithification of limestone cap for ease of spud in and choice of bit. AGCs collected.	yes	yes
13	Rock Sampling	desirable, but may be required in some cases	abundant dredge samples	yes	yes
14	Current meter	desirable, but may be required in some cases	not required for VE-3	no	no

SSP comments: All data for sites compatible with the objectives of VE-3 (testing of DCS system) have been received by the Data Bank. For potential sites near 500 m and 1200 m water depth the seafloor is free of sediment and a limestone cap is evident.

SSP Agenda Item 5.1

ODP Site Survey Worksheet: Passive Margin

Proposal name: Eastern Equatorial Atlantic	Proposal #: 346-Rev4
Site: IG1n	Proposed total depth (m): 1600
Area: Ivory coast-Ghana margin	Proposed sed. penetration (m): 1600
Lat/Long: 3° 37.6' N; 2° 44.1' W	Proposed basement penetration: (m): 0
Water depth: 2100 m	APC/XCB/RCB/re-entry? XCB
Who filled out worksheet? Sibuet	Date of worksheet: 9 Nov 1993

This site has been assessed under the Site Survey guidelines for Target Type "B", defined as "Greater penetration than a few hundred meters on a passive margin." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1 & 2	SCS	desirable		*	*
3a	MCS	vital	MCS exist along 2 crossing lines	*	*
3b	Seismic velocity determination	vital	Stacking velocities exist	*	*
4	Grid of intersecting seismic lines	vital	A grid exists with SCS lines and 2 crossing MCS lines	*	*
5	Refraction	desirable, but may be required in some cases	OBS data have been processed and in DB	*	*
6	3.5 or 12 kHz echosounder	vital	Three 3.5 kHz lines exist in DB	*	*
7	Swath bathymetry	desirable, but may be required in some cases		*	*
8	Side-looking sonar	desirable, but may be required in some cases			
9	Photography or Video		submersible dive EN13 (1992) at about 17 km	*	*
10	Heat flow	desirable, but may be required in some cases			
11a	Magnetics	desirable		*	
11b	Gravity	desirable		*	*
12	Cores: paleoenvironment / geotechnical	required for re-entry sites; other-wise desirable	Logs are in DB	*	*
13	Rock Sampling		Rock sampling during dives	*	*
14	Current meter	desirable, but may be required in some cases			

All vital data are in DB.

ODP Site Survey Worksheet: Passive Margin

Proposal name: Eastern Equatorial Atlantic	Proposal #: 346-Rev4
Site: IG1nbis	Proposed total depth (m): 780
Area: Ivory coast-Ghana margin	Proposed sed. penetration (m): 780
Lat/Long: 3° 35.3' N; 2° 43.9' W	Proposed basement penetration: (m): 0
Water depth: 2062 m	APC/XCB/RCB/re-entry? XCB
Who filled out worksheet? Sibuet	Date of worksheet: 9 Nov. 1993

This site has been assessed under the Site Survey guidelines for Target Type "B", defined as "Greater penetration than a few hundred meters on a passive margin." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1 & 2	SCS	desirable		*	*
3a	MCS	vital	MCS exist along 2 crossing lines	*	*
3b	Seismic velocity determination	vital	Stacking velocities exist	*	*
4	Grid of intersecting seismic lines	vital	A grid exists with SCS lines and 2 crossing MCS lines	*	*
5	Refraction	desirable, but may be required in some cases	OBS data have been processed and in DB	*	*
6	3.5 or 12 kHz echosounder	vital	Three 3.5 kHz lines exist in DB	*	*
7	Swath bathymetry	desirable, but may be required in some cases		*	*
8	Side-looking sonar	desirable, but may be required in some cases			
9	Photography or Video		submersible dive EN13 (1992) at about 17 km	*	*
10	Heat flow	desirable, but may be required in some cases			
11a	Magnetics	desirable		*	
11b	Gravity	desirable		*	*
12	Cores: paleoenvironment / geotechnical	required for re-entry sites; other-wise desirable	Logs are in DB	*	*
13	Rock Sampling		Rock sampling during dives	*	*
14	Current meter	desirable, but may be required in some cases			

All vital data are in DB.

ODP Site Survey Worksheet: Passive Margin

Proposal name: Eastern Equatorial Atlantic		Proposal #: 346-Rev4
Site: IG2n	Proposed total depth (m): 780	
Area: Ivory coast-Ghana margin	Proposed sed. penetration (m): 780	
Lat/Long: 3° 26.5' N; 3° 03.6' W	Proposed basement penetration: (m): 0	
Water depth: 3338 m	APC/XCB/RCB/re-entry? XCB	
Who filled out worksheet? Sibuet		Date of worksheet: 9 Nov. 1993

This site has been assessed under the Site Survey guidelines for Target Type "B", defined as "Greater penetration than a few hundred meters on a passive margin." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1 & 2	SCS	desirable	SCS line 24 is a crossing line	*	*
3a	MCS	vital	Three MCS crossing lines exist nearby. Line MTO5 in DB	*	*
3b	Seismic velocity determination	vital	Stacking velocities exist but not in DB	*	*
4	Grid of intersecting seismic lines	vital	A grid exists with SCS lines	*	*
5	Refraction	desirable, but may be required in some cases	OBS data have been processed and in DB	*	*
6	3.5 or 12 kHz echosounder	vital	3.5 kHz data exist on 2 parallel lines	*	*
7	Swath bathymetry	desirable, but may be required in some cases		*	*
8	Side-looking sonar	desirable, but may be required in some cases			
9	Photography or Video		submersible dive EN14 (1992) at about 3 km	*	*
10	Heat flow	desirable, but may be required in some cases			
11a	Magnetics	desirable		*	
11b	Gravity	desirable		*	*
12	Cores: paleoenvironment / geotechnical	required for re-entry sites; other-wise desirable			
13	Rock Sampling		Rock sampling during dives	*	*
14	Current meter	desirable, but may be required in some cases			

All vital data exist. A lot of crossing SCS lines also exist.

ODP Site Survey Worksheet: Passive Margin

Proposal name: Eastern Equatorial Atlantic	Proposal #: 346-Rev4
Site: IG2nbis	Proposed total depth (m): 800
Area: Ivory coast-Ghana margin	Proposed sed. penetration (m): 800
Lat/Long: 3° 18.1' N; 3° 22.9' W	Proposed basement penetration: (m): 0
Water depth: 4500 m	APC/XCB/RCB/re-entry? XCB
Who filled out worksheet? Sibuet	Date of worksheet: 9 Nov. 1993

This site has been assessed under the Site Survey guidelines for Target Type "B", defined as "Greater penetration than a few hundred meters on a passive margin." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1 & 2	SCS	desirable	SCS line 35 is a crossing line	*	*
3a	MCS	vital	Site on line MTO5 which is in DB	*	*
3b	Seismic velocity determination	vital	Stacking velocities exist and in DB	*	*
4	Grid of intersecting seismic lines	vital	A grid exists with SCS lines	*	*
5	Refraction	desirable, but may be required in some cases	OBS data have been processed and in DB	*	*
6	3.5 or 12 kHz echosounder	vital	3.5 kHz data exist and in DB	*	*
7	Swath bathymetry	desirable, but may be required in some cases		*	*
8	Side-looking sonar	desirable, but may be required in some cases			
9	Photography or Video				
10	Heat flow	desirable, but may be required in some cases			
11a	Magnetics	desirable		*	
11b	Gravity	desirable		*	*
12	Cores: paleoenvironment / geotechnical	required for re-entry sites; other-wise desirable			
13	Rock Sampling				
14	Current meter	desirable, but may be required in some cases			

All vital data exist. A lot of crossing SCS lines also exist.

ODP Site Survey Worksheet: Passive Margin

Proposal name: Eastern Equatorial Atlantic	Proposal #: 346-Rev4
Site: IG3n	Proposed total depth (m): 550-700
Area: Ivory coast-Ghana margin	Proposed sed. penetration (m): 700
Lat/Long: 3° 15.4' N; 3° 11.1' W	Proposed basement penetration: (m): 0-150
Water depth: 4650 m	APC/XCB/RCB/re-entry? XCB
Who filled out worksheet? Sibuet	Date of worksheet: 9 Nov. 1993

This site has been assessed under the Site Survey guidelines for Target Type "B", defined as "Greater penetration than a few hundred meters on a passive margin." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1 & 2	SCS	desirable		*	*
3a	MCS	vital	MCS line MT01 exists and in DB	*	*
3b	Seismic velocity determination	vital	Stacking velocities exist and in DB	*	*
4	Grid of intersecting seismic lines	vital	A grid exists with SCS lines	*	*
5	Refraction	desirable, but may be required in some cases	OBS data have been processed and in DB	*	*
6	3.5 or 12 kHz echosounder	vital	3.5 kHz data exist on 2 parallel lines and 1 crossing line	*	*
7	Swath bathymetry	desirable, but may be required in some cases		*	*
8	Side-looking sonar	desirable, but may be required in some cases			
9	Photography or Video		submersible dive EN14 (1992) at about 25 km	*	*
10	Heat flow	desirable, but may be required in some cases			
11a	Magnetics	desirable		*	
11b	Gravity	desirable		*	*
12	Cores: paleoenvironment / geotechnical	required for re-entry sites; other-wise desirable			
13	Rock Sampling		Rock sampling during dives	*	*
14	Current meter	desirable, but may be required in some cases			

All vital data in DB. However, there is no existing MCS crossing line for this site but there is a lot of SCS lines crossing the existing MCS MT01 line. SCS lines provide enough information as the site requires shallow penetration.

SSP Agenda Item 5.3

ODP Site Survey Worksheet: Passive Margin

Proposal name: Alboran Sea	Proposal #: 323-rev3
Site: Alb-1Anew (6.5km from site in proposal 323-rev2)	Proposed total depth (m): 2400m
Area: Alboran Sea	Proposed sed. penetration (m): 2250m
Lat/Long: 36°14', 4°20'W	Proposed basement penetration: (m): 150m
Water depth: 1000m	APC/XCB/RCB/re-entry?
Who filled out worksheet? Kim Kastens	Date of worksheet: Nov 2, 1992; no change April 1993; first revision July 28, 1993; 2nd revision Nov 15, 1993

This site has been assessed under the Site Survey guidelines for Target Type "B", defined as "Greater penetration than a few hundred meters on a passive margin.". See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1 & 2	SCS	desirable	Scattered regional lines	yes	yes
3a	MCS	vital	On intersection of MCS lines ALB-18B and ALB-39; both are in Data Bank large scale	yes	yes
3b	Seismic velocity determination	vital	on line ALB-18B in Data Bank	yes	yes
4	Grid of intersecting seismic lines	vital	4km spacing grid throughout region; on crossing lines ALB-18B and ALB-39	yes	yes
5	Refraction	desirable, but may be required in some cases	none, not necessary	NN	NN
6	3.5 or 12 kHz echosounder	vital	18kHz Parasound data in Data Bank provides comparable information	yes	
7	Swath bathymetry	desirable, but may be required in some cases	Simrad data from Hesperides cruise is in Data Bank	yes	yes
8	Side-looking sonar	desirable, but may be required in some cases	Simrad backscatter data exists, still in processing, not in Data Bank (not required)	yes	
9	Photography or Video		none, not necessary	NN	NN
10	Heat flow	desirable, but may be required in some cases	collected on an ongoing Russian cruise according to a fax from Menchu Comas dated 29 Oct 1993	yes	
11a	Magnetics	desirable	none, not necessary	NN	NN
11b	Gravity	desirable	Proposal includes basinwide gravity anomaly map	ok	ok
12	Cores: paleoenvironment / geotechnical	required for re-entry sites; other-wise desirable	Data Bank has logs from boreholes on Spanish margin. DSDP 121 is 7km away. Piston cores being collected on ongoing Russian cruise	yes	
13	Rock Sampling		none, not necessary submersible sampling of nearby basement outcrops from Nautile has been proposed (according to proposal 323rev3)	NN	NN
14	Current meter	desirable, but may be required in some cases	none, not necessary	NN	NN

SSP comments: (1) This site has been moved from proposal 323-rev2 to accomodate comments from safety pre-review. (2) Because this is a reentry site, a nearby core is required. DSDP 121 is not considered adequate because the upper 60m were not cored. Menchu Comas says in a fax dated 29 October 1993 that piston cores and heatflow are being collected on a Russian cruise

ODP Site Survey Worksheet: Passive Margin

Proposal name: Alboran Sea	Proposal #: 323rev3
Site: Alb-2new	Proposed total depth (m): 690
Area: Alboran Sea	Proposed sed. penetration (m): 540
Lat/Long: 36°12'N 4°19'W	Proposed basement penetration: (m): 150m
Water depth: 1080m	APC/XCB/RCB/re-entry? RCB re-entry
Who filled out worksheet? Kim Kastens	Date of worksheet: Nov 2, 1992; no change April 1993, first revision July 27, 1993

This site has been assessed under the Site Survey guidelines for Target Type "B", defined as "Greater penetration than a few hundred meters on a passive margin." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1 & 2	SCS	desirable	Scattered regional lines	yes	yes
3a	MCS	vital	on MCS lines ALB-39B,75-230, 75-334; all is in Data Bank at large scale of good quality	yes	yes
3b	Seismic velocity determination	vital	velocity on line ALB-39 shown in proposal	yes	yes
4	Grid of intersecting seismic lines	vital	at intersection of three lines 4km spacing regional MCS grid	yes	yes
5	Refraction	desirable, but may be required in some cases	none, not required	NN	NN
6	3.5 or 12 kHz echosounder	vital	18kHz parasound data in Data Bank provides comparable information; Parasound crossing of new sites not yet submitted	yes	
7	Swath bathymetry	desirable, but may be required in some cases	Simrad data from Hesperides cruise exists, still in processing; not in Data Bank (not required)	yes	
8	Side-looking sonar	desirable, but may be required in some cases	Simrad backscatter data exists, still in processing, not in Data Bank (not required)	yes	
9	Photography or Video		none, not required	NN	NN
10	Heat flow	desirable, but may be required in some cases	Menchu Comas says in a fax dated 29 October 1993 that heatflow is being collected on a Russian cruise	yes	
11a	Magnetics	desirable	none, not required	NN	NN
11b	Gravity	desirable	Proposal includes basinwide gravity anomaly map	ok	ok
12	Cores: paleoenvironment / geotechnical	required for re-entry sites; other-wise desirable	Data Bank has logs from boreholes on Spanish margin. No nearby piston or gravity cores. Menchu Comas says in a fax dated 29 October 1993 that piston cores were collected in May 1993.	yes	
13	Rock Sampling		none, not required	NN	NN
14	Current meter	desirable, but may be required in some cases	none, not required	NN	NN

SSP comments: (1) This site has been moved from proposal 323-rev2 to accomodate comments from safety pre-review and reduce drilling time. It is now a backup site to be drilled if Alb-1new fails to penetrate basement. (2) Because this is a reentry site, a nearby core is required. DSDP 121 is not considered adequate because the upper 60m were not cored.

SSP Agenda Item 5.4

NARM-NVII

ODP Site Survey Worksheet: Passive Margin

Proposal name: Return to Iberia Abyssal Plain	Proposal #: NARM-NVI
Site: **IAP-6**	Proposed total depth (m): 2950
Area: Iberia Abyssal Plain	Proposed sed. penetration (m): 2900
Lat/Long: 40°41.5' N, 11°28.2' W	Proposed basement penetration: (m): 50
Water depth: 5000 m	APC/XCB/RCB/re-entry? all
Who filled out worksheet? G.Mountain	Date of worksheet: **11/15/93**

This site has been assessed under the Site Survey guidelines for Target Type B, defined as Greater penetration than a few hundred meters on a passive margin.See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1 & 2	SCS	desirable	Leg 149 underway SCS?	?	
3a	MCS	vital	Lusigal Line 12 - 1112h	√	√
3b	Seismic velocity determination	vital	accompanying the MCS lines	√	?
4	Grid of intersecting seismic lines	vital	only if Leg 149 collected SCS across site	?	
5	Refraction	desirable, but may be required in some cases	OBS - predicted basement with 4% accuracy, Leg 149 Leg 149 drilling	√ ?	√ ?
6	3.5 or 12 kHz echosounder	vital	only if Leg 149 collected 3.5 across site	?	
7	Swath bathymetry	desirable, but may be required in some cases	l'Atalante, July '93	√	√
8	Side-looking sonar	desirable, but may be required in some cases	7 kHz TOBI is nearby	√	√
9	Photography or Video		NONE		
10	Heat flow	desirable, but may be required in some cases	Leg 149 logging ?	?	
11a	Magnetics	desirable	OK	√	√
11b	Gravity	desirable	OK - (but check size of plot)	√	√
12	Cores: paleoenvironment / geotechnical	required for re-entry sites; other-wise desirable	Leg 149	√	
13	Rock Sampling				
14	Current meter	desirable, but may be required in some cases			

SSP comments: crossing lines important for 3-D control of target; VERY deep hole

ODP Site Survey Worksheet: Passive Margin

Proposal name: Return to Iberia Abyssal Plain	Proposal #: TECP-WG
Site: **IAP-7**	Proposed total depth (m): *
Area: Iberia Abyssal Plain	Proposed sed. penetration (m): *
Lat/Long: *	Proposed basement penetration: (m): *
Water depth: *	APC/XCB/RCB/re-entry? all
Who filled out worksheet? G.Mountain	Date of worksheet: **11/15/93**

This site has been assessed under the Site Survey guidelines for Target Type B, defined as Greater penetration than a few hundred meters on a passive margin.See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1 & 2	SCS	desirable	Leg 149 underway SCS?	?	
3a	MCS	vital	Lusigal Line 12 - position not yet defined	√	√
3b	Seismic velocity determination	vital	accompanying the MCS lines	√	?
4	Grid of intersecting seismic lines	vital	only if Leg 149 collected SCS across site	?	
5	Refraction	desirable, but may be required in some cases	OBS - predicted basement with 4% accuracy, Leg 149 Leg 149 drilling	√ ?	√ ?
6	3.5 or 12 kHz echosounder	vital	only if Leg 149 collected 3.5 across site	?	
7	Swath bathymetry	desirable, but may be required in some cases	l'Atalante, July '93	√	√
8	Side-looking sonar	desirable, but may be required in some cases	7 kHz TOBI is nearby	√	√
9	Photography or Video		NONE		
10	Heat flow	desirable, but may be required in some cases	Leg 149 logging?	?	
11a	Magnetics	desirable	OK	√	√
11b	Gravity	desirable	OK - (but check size of plot)	√	√
12	Cores: paleoenvironment / geotechnical	required for re-entry sites; other-wise desirable	Leg 149	√	
13	Rock Sampling				
14	Current meter	desirable, but may be required in some cases			

SSP comments: * lacks fundamental data, e.g. lat/long; crossing lines important for 3-D control of target

ODP Site Survey Worksheet: Paleoenvironment or Fan

SSP Agenda Item 6.1

Proposal name: Gas Hydrates	Proposal #: 423-Rev
Site: BHR-1a	Proposed total depth (m): 750
Area: Blake Ridge	Proposed sed. penetration (m): 750
Lat/Long: 31°50.59'N; 75°28.12'W	Proposed basement penetration: (m): -
Water depth: 2722 m	APC/XCB/RCB?\
Who filled out worksheet? AC	Date of worksheet: Nov 8 '93

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	CH-06-92 Line 31; SP 32675 Airgun-digital; 3-130 Hz display	X	X
3	MCS &Seismic velocity determination	none	Near by USGSBT-1; USGS TD-2	X	X
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	YES. site on crossing with CH-06-92 lines 09 and 31	X	X
5	Refraction	**desirable**	OBH data. Manuscript in DB	X	X
6	3.5 or 12 kHz echosounder	required	CH-06-92 Line 31	X	X
7	Swath bathymetry	desirable, but may be required in some cases	no		
8	Side-looking sonar	desirable, but may be required in some cases	Publidhed GLORIA Atlas	X	
9	Photography or Video	none	no		
10	Heat flow	**desirable**	CH-11-92 Transect. Tables of values in DB	X	X
11a	Magnetics	none	regional; published	X	
11b	Gravity	none	regional; published	X	
12	Cores: paleoenvironment / geotechnical	vital	within 1 km from site location Core CH-11-92 PC-07	X	X
13	Rock Sampling	none	no		
14	Current meter	desirable, but may be required in some cases	in the vicinity (several km)	X	

SSP comments: 3.5 kHz data are on small format photographs. Line 31 needs correction in amplitude representation. Authoirs should submit color-amplitude display of line 31. Data satisfy requirements

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Gas Hydrates	Proposal #: 423-Rev
Site: BHR-2a	Proposed total depth (m): 800
Area: Blake Ridge	Proposed sed. penetration (m): 800
Lat/Long: 31°52.84N; 75°25.11W	Proposed basement penetration: (m): -
Water depth: 2828 m	APC/XCB/RCB? \
Who filled out worksheet? AC	Date of worksheet: Nov 8 '93

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	CH-06-92 Line 31, SP 32354 Airgun-digital; 3-130 Hz display	X	X
3	MCS &Seismic velocity determination	none	Nearby USGSBT-1; USGS TD-2	X	X
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	YES. Site at crossing with CH-06-92 line 36	X	X
5	Refraction	**desirable**	OBH data. Manuscript in DB	X	X
6	3.5 or 12 kHz echosounder	required	CH-06-92 Line 31	X	X
7	Swath bathymetry	desirable, but may be required in some cases	no		
8	Side-looking sonar	desirable, but may be required in some cases	Publidhed GLORIA Atlas	X	
9	Photography or Video	none	no		
10	Heat flow	**desirable**	CH-11-92 Transect. Tables of values in DB	X	X
11a	Magnetics	none	regional; published	X	
11b	Gravity	none	regional; published	X	
12	Cores: paleoenvironment / geotechnical	vital	within 1 km from site location Core CH-11-92 PC-12	X	X
13	Rock Sampling	none	no		
14	Current meter	desirable, but may be required in some cases	in the vicinity (several km)	X	

SSP comments: 3.5 kHz data are on small format photographs. Line 31 needs correction in amplitude representation. Authoirs could submit color-amplitude display of line 31. Data satisfy requirements

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Gas Hydrates	Proposal #: 423-Rev
Site: BHR-2a	Proposed total depth (m): 800
Area: Blake Ridge	Proposed sed. penetration (m): 800
Lat/Long: 31°52.84N; 75°25.11W	Proposed basement penetration: (m): -
Water depth: 2828 m	APC/XCB/RCB? \
Who filled out worksheet? AC	Date of worksheet: Nov 8 '93

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	CH-06-92 Line 31, SP 32354 Airgun-digital; 3-130 Hz display	X	X
3	MCS &Seismic velocity determination	none	Nearby USGSBT-1; USGS TD-2	X	X
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	YES. Site at crossing with CH-06-92 line 36	X	X
5	Refraction	**desirable**	OBH data. Manuscript in DB	X	X
6	3.5 or 12 kHz echosounder	required	CH-06-92 Line 31	X	X
7	Swath bathymetry	desirable, but may be required in some cases	no		
8	Side-looking sonar	desirable, but may be required in some cases	Publidhed GLORIA Atlas	X	
9	Photography or Video	none	no		
10	Heat flow	**desirable**	CH-11-92 Transect. Tables of values in DB	X	X
11a	Magnetics	none	regional; published	X	
11b	Gravity	none	regional; published	X	
12	Cores: paleoenvironment / geotechnical	vital	within 1 km from site location Core CH-11-92 PC-12	X	X
13	Rock Sampling	none	no		
14	Current meter	desirable, but may be required in some cases	in the vicinity (several km)	X	

SSP comments: 3.5 kHz data are on small format photographs. Line 31 needs correction in amplitude representation. Authoirs should submit color-amplitude display of line 31. Data satisfy requirements

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Gas Hydrates	Proposal #: 423-Rev
Site: BHR-3a	Proposed total depth (m): 750
Area: Blake Ridge	Proposed sed. penetration (m): 750
Lat/Long: 31°54.40N; 75°23.02W	Proposed basement penetration: (m): -
Water depth: 2965 m	APC/XCB/RCB? \
Who filled out worksheet? AC	Date of worksheet: Nov 8 '93

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	CH-06-92 Line 31, SP 32206 Airgun-digital; 3-130 Hz display	X	X
3	MCS &Seismic velocity determination	none	Nearby USGSBT-1; USGS TD-2	X	X
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	CH-06-92 line 04	X	X
5	Refraction	**desirable**	OBH data. Manuscript in DB	X	X
6	3.5 or 12 kHz echosounder	required	YES. Site at crossing with CH-06-92 Line 31	X	X
7	Swath bathymetry	desirable, but may be required in some cases	no		
8	Side-looking sonar	desirable, but may be required in some cases	Publidhed GLORIA Atlas	X	
9	Photography or Video	none	no		
10	Heat flow	**desirable**	CH-11-92 Transect. Tables of values in DB	X	X
11a	Magnetics	none	regional; published	X	
11b	Gravity	none	regional; published	X	
12	Cores: paleoenvironment / geotechnical	vital	within 1 km from site location Core CH-11-92 PC-06	X	X
13	Rock Sampling	none	no.		
14	Current meter	desirable, but may be required in some cases	in the vicinity (several km)	X	

SSP comments: 3.5 kHz data are on small format photographs. Line 31 needs correction in amplitude representation. Authoirs should submit color-amplitude display of line 31. Data satisfy requirements

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Gas Hydrates	Proposal #: 423-Rev
Site: CFD-1	Proposed total depth (m): 50
Area: Cape Fear Diapir	Proposed sed. penetration (m): 50
Lat/Long: 33°00.95'N; 75°56.75'W	Proposed basement penetration: (m): -
Water depth: 2690 m	APC/XCB
Who filled out worksheet? AC	Date of worksheet: Nov 9 '93

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	CH-11-91 Line 10 Airgun-digital; 3-130 Hz display	X	X
3	MCS &Seismic velocity determination	none	Nearby	X	X
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	No grid. Only one crossing line with nearby Site CFD-3		
5	Refraction	none	no		
6	3.5 or 12 kHz echosounder	required	CH-11-91 Line 10	X	X
7	Swath bathymetry	desirable, but may be required in some cases	no		
8	Side-looking sonar	**highly desirable**	Cruise October 1993. Results not yet in DB. Published GLORIA Atlas	X	
9	Photography or Video	none	Cruise October 1993. in the vicinity	X	
10	Heat flow	**desirable**	CH-11-92 Two measurements only from top of diapir. (not on any site location). Table of values in DB	X	X
11a	Magnetics	none	regional; published	X	
11b	Gravity	none	regional; published	X	
12	Cores: paleoenvironment / geotechnical	vital	On site. Core CH-15-91 PC-12 and CH-07-88 2G	X	X
13	Rock Sampling	none	no		
14	Current meter	desirable, but may be required in some cases	in the vicinity (several km)	X	

SSP comments: No seismic grid available for this site. The grid, as well as seismic velocity data, are not required given the shallow penetration of the sites of this transect and the side scan coverage along the transect. Site are considered ready for drilling.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Gas Hydrates	Proposal #: 423-Rev
Site: CFD-2	Proposed total depth (m): 50
Area: Cape Fear Diapir	Proposed sed. penetration (m): 50
Lat/Long: 33°00.30'N; 75°55.80W	Proposed basement penetration: (m): -
Water depth: 2700 m	APC/XCB
Who filled out worksheet? AC	Date of worksheet: Nov 9 '93

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	CH-11-91 Line 10 Airgun-digital; 3-130 Hz display	X	X
3	MCS &Seismic velocity determination	none	Nearby	X	X
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	No grid. Only one crossing line with nearby Site CFD-3		
5	Refraction	none	no		
6	3.5 or 12 kHz echosounder	required	CH-11-91 Line 10	X	X
7	Swath bathymetry	desirable, but may be required in some cases	no		
8	Side-looking sonar	**highly desirable**	Cruise October 1993. Results not yet in DB. Published GLORIA Atlas	X	
9	Photography or Video	none	Cruise October 1993. in the vicinity	X	
10	Heat flow	**desirable**	CH-11-92 Two measurements only from top of diapir. (not on any site location). Table of values in DB	X	X
11a	Magnetics	none	regional; published	X	
11b	Gravity	none	regional; published	X	
12	Cores: paleoenvironment / geotechnical	vital	On site. Core CH-15-91 PC-11 and CH-07-88 1G and 1P	X	X
13	Rock Sampling	none	no		
14	Current meter	desirable, but may be required in some cases	in the vicinity (several km)	X	

SSP comments: No seismic grid available for this site. The grid, as well as seismic velocity data, are not required given the shallow penetration of the sites of this transect and the side scan coverage along the transect. Site is considered ready for drilling.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Gas Hydrates	Proposal #: 423-Rev
Site: CFD-3	Proposed total depth (m): 50
Area: Cape Fear Diapir	Proposed sed. penetration (m): 50
Lat/Long: 32°59.90'N; 75°55.18W	Proposed basement penetration: (m): -
Water depth: 2650 m	APC/XCB
Who filled out worksheet? AC	Date of worksheet: Nov 9 '93

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	CH-11-91 Line 10 Airgun-digital; 3-130 Hz display	X	X
3	MCS &Seismic velocity determination	none	Nearby	X	X
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	No grid. Only one crossing with CH-11-91 Line 60	X	
5	Refraction	none	no		
6	3.5 or 12 kHz echosounder	required	CH-11-91 Line 10	X	X
7	Swath bathymetry	desirable, but may be required in some cases	no		
8	Side-looking sonar	**highly desirable**	Cruise October 1993. Results not yet in DB. Published GLORIA Atlas	X	
9	Photography or Video	none	Cruise October 1993. in the vicinity	X	
10	Heat flow	**desirable**	CH-11-92 Two measurements only from top of diapir. (not on any site location). Table of values in DB	X	X
11a	Magnetics	none	regional; published	X	
11b	Gravity	none	regional; published	X	
12	Cores: paleoenvironment / geotechnical	vital	On site. Cores CH-07-88 PC-16 and CH-07-88 8P	X	X
13	Rock Sampling	none	no		
14	Current meter	desirable, but may be required in some cases	in the vicinity (several km)	X	

SSP comments: Given the shallow pernetration of the site, seismic velocity data will not be required for this transect. Site is considered ready for drilling.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Gas Hydrates	Proposal #: 423-Rev
Site: CFD-4	Proposed total depth (m): 50
Area: Cape Fear Diapir	Proposed sed. penetration (m): 50
Lat/Long: 32°59.30'N; 75°54.25'W	Proposed basement penetration: (m): -
Water depth: 2590 m	APC/XCB
Who filled out worksheet? AC	Date of worksheet: Nov 9 '93

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	CH-11-91 Line 10 Airgun-digital; 3-130 Hz display	X	X
3	MCS &Seismic velocity determination	none	Nearby	X	X
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	No grid. Only one crossing line with Site CFD-3		
5	Refraction	none	no		
6	3.5 or 12 kHz echosounder	required	CH-11-91 Line 10	X	X
7	Swath bathymetry	desirable, but may be required in some cases	no		
8	Side-looking sonar	**highly desirable**	Cruise October 1993. Results not yet in DB. Published GLORIA Atlas	X	
9	Photography or Video	none	Cruise October 1993. in the vicinity	X	
10	Heat flow	**desirable**	CH-11-92 Two measurements only from top of diapir. (not on any site location). Table of values in DB	X	X
11a	Magnetics	none	regional; published	X	
11b	Gravity	none	regional; published	X	
12	Cores: paleoenvironment / geotechnical	vital	On site. Core CH-31-93 PC-22 and CH-07-88 8P	X	X
13	Rock Sampling	none	no		
14	Current meter	desirable, but may be required in some cases	in the vicinity (several km)	X	

SSP comments: No seismic grid available for this site. The grid, as well as seismic velocity data, are not required given the shallow penetration of the sites of this transect and the side scan coverage along the transect. Site is considered ready for drilling.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Gas Hydrates	Proposal #: 423-Rev
Site: CR-1	Proposed total depth (m): 800
Area: Carolina Rise	Proposed sed. penetration (m): 800
Lat/Long: 32°46.88N; 75°57.40W	Proposed basement penetration: (m): -
Water depth: 2647 m	APC/XCB/RCB?
Who filled out worksheet? AC	Date of worksheet: Nov 9 '93

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	CH-06-92 Line 41, SP 100534 Airgun-digital; 3-130 Hz display	X	X
3	MCS &Seismic velocity determination	none	Nearby USGS lines 09 and 32	X	X
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	YES. Site not on a crossing line. CH-06-92 Lines 48, -50, and 57 are in DB (located about 2 km from site)	X	X
5	Refraction	**desirable**	OBH data on site. Results to be submitted in early '94	X	X
6	3.5 or 12 kHz echosounder	required	CH-06-92 Line 46 (same track as line 41)	X	X
7	Swath bathymetry	desirable, but may be required in some cases	no		
8	Side-looking sonar	desirable, but may be required in some cases	Publidhed GLORIA Atlas	X	
9	Photography or Video	none	no		
10	Heat flow	**desirable**	CH-11-92 Transect. Tables of values in DB	X	X
11a	Magnetics	none	regional; published	X	
11b	Gravity	none	regional; published	X	
12	Cores: paleoenvironment / geotechnical	vital	On site. Core CH-11-92 PC-18	X	X
13	Rock Sampling	none	no		
14	Current meter	desirable, but may be required in some cases	in the vicinity (several km)	X	

SSP comments: Velocity data from OBH are awaited. Proponents could submit color-amplituted diplay of line 41. The Site is not at a crossing between two lines. However, a dense grid exists around the site location and the 3-D distribution of reflectors and structures is provided. The Panel does not require moving the site location to a crossing point. Data satisfy requirements.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Gas Hydrates	Proposal #: 423-Rev
Site: CR-2ext	Proposed total depth (m): 750
Area: Carolina Rise	Proposed sed. penetration (m): 750
Lat/Long: 32°46.74'N; 75°55.20'W	Proposed basement penetration: (m): -
Water depth: 2732 m	APC/XCB/RCB?
Who filled out worksheet? AC	Date of worksheet: Nov 9 '93

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	CH-06-92 Line 41, SP 100534 Airgun-digital; 3-130 Hz display	X	X
3	MCS &Seismic velocity determination	none	Nearby USGS lines 09 and 32	X	X
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	YES. Site is at the crossing with CH-06-92 Line 50	X	X
5	Refraction	**desirable**	OBH data on site. Results to be submitted in early '94	X	X
6	3.5 or 12 kHz echosounder	required	CH-06-92 Line 46 (same track as line 41)	X	X
7	Swath bathymetry	desirable, but may be required in some cases	no		
8	Side-looking sonar	desirable, but may be required in some cases	Publidhed GLORIA Atlas	X	
9	Photography or Video	none	no		
10	Heat flow	**desirable**	CH-11-92 Carolina Transect. Tables of values in DB	X	X
11a	Magnetics	none	regional; published	X	
11b	Gravity	none	regional; published	X	
12	Cores: paleoenvironment / geotechnical	vital	On site. Core CH-11-92 PC-19	X	X
13	Rock Sampling	none	no		
14	Current meter	desirable, but may be required in some cases	in the vicinity (several km)	X	

SSP comments: Velocity data from OBH are awaited. Proponents could submit color-amplituted diplay of line 41. Data satisfy requirements.

SSP Agenda Item 6.2

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Bahamas Transect		Proposal #: 412-Add2
Site: BT-1	Proposed total depth (m): 1300 m	
Area: Straits of Florida	Proposed sed. penetration (m): 1300 m	
Lat/Long: 24°33'N/79°10'W	Proposed basement penetration: (m):	
Water depth: 170 m	APC/XCB/RCB? 2-APC/XCB/RCB	
Who filled out worksheet? Sibuet/Blum		Date of worksheet: 8 Nov 1993

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	Funded (NSF) cruise, spring 1994		
3	MCS &Seismic velocity determination	none	Western MSC line GBB8203X MCS velocities	√ √ √	√ √ √
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	USGS SCS grid Intera Info. Techn. MCS lines 10, 11, 12, 22, 23	√	
5	Refraction	none			
6	3.5 or 12 kHz echosounder	required	Funded (NSF) cruise, spring 1994		
7	Swath bathymetry	desirable, but may be required in some cases			
8	Side-looking sonar	desirable, but may be required in some cases	Funded (NSF) cruise, spring 1994		
9	Photography or Video	none	USGS submersible dives	√	
10	Heat flow	none	Funded (NSF) cruise, spring 1994		
11a	Magnetics	none			
11b	Gravity	none			
12	Cores: paleoenvironment / geotechnical	vital	Continuously cored wells UNDA and CLINO; Shallow piston cores on funded (NSF) cruise, spring 1994	√	√
13	Rock Sampling	none			
14	Current meter	desirable, but may be required in some cases	Physical oceanography data (subsurface currents, CTD, XBT, current velocities, etc.)	√	√

SSP comments: Funded cruise in spring 1994 to recover high-resolution MCS, side-scan sonar and 3.5 kHz lines, SCS and shallow piston cores across proposed sites, and heat flow across slope transect.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Bahamas Transect	Proposal #: 412-Add2
Site: BT-2	Proposed total depth (m): 930 m
Area: Straits of Florida	Proposed sed. penetration (m): 930 m
Lat/Long: 24°31'N/79°14'W	Proposed basement penetration: (m):
Water depth: 338 m	APC/XCB/RCB? 2-APC/XCB/RCB
Who filled out worksheet? Sibuet/Blum	Date of worksheet: 8 Nov 1993

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	Funded (NSF) cruise, spring 1994		
3	MCS &Seismic velocity determination	none	Western MSC line GBB8203X MCS velocities	√ √ √	√ √ √
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	USGS SCS grid Intera Info. Techn. MCS lines 10, 11, 12, 22, 23	√	
5	Refraction	none			
6	3.5 or 12 kHz echosounder	required	Funded (NSF) cruise, spring 1994		
7	Swath bathymetry	desirable, but may be required in some cases			
8	Side-looking sonar	desirable, but may be required in some cases	Funded (NSF) cruise, spring 1994		
9	Photography or Video	none	USGS submersible dives	√	
10	Heat flow	none	Funded (NSF) cruise, spring 1994		
11a	Magnetics	none			
11b	Gravity	none			
12	Cores: paleoenvironment / geotechnical	vital	Continuously cored wells UNDA and CLINO; Shallow piston cores on funded (NSF) cruise, spring 1994	√	√
13	Rock Sampling	none			
14	Current meter	desirable, but may be required in some cases	Physical oceanography data (subsurface currents, CTD, XBT, current velocities, etc.)	√	√

SSP comments: Funded cruise in spring 1994 to recover high-resolution MCS, side-scan sonar and 3.5 kHz lines, SCS and shallow piston cores across proposed sites, and heat flow across slope transect.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Bahamas Transect	Proposal #: 412-Add2
Site: BT-3	Proposed total depth (m): 1300 m
Area: Straits of Florida	Proposed sed. penetration (m): 1300 m
Lat/Long: 24°30'N/79°18'30"W	Proposed basement penetration: (m):
Water depth: 525 m	APC/XCB/RCB? 2-APC/XCB/RCB
Who filled out worksheet? Sibuet/Blum	Date of worksheet: 8 Nov 1993

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	Funded (NSF) cruise, spring 1994		
3	MCS &Seismic velocity determination	none	Western MSC line GBB8203X MCS velocities	√ √ √	√ √ √
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	USGS SCS grid Intera Info. Techn. MCS lines 10, 11, 12, 22, 23	√	
5	Refraction	none			
6	3.5 or 12 kHz echosounder	required	Funded (NSF) cruise, spring 1994		
7	Swath bathymetry	desirable, but may be required in some cases			
8	Side-looking sonar	desirable, but may be required in some cases	Funded (NSF) cruise, spring 1994		
9	Photography or Video	none	USGS submersible dives	√	
10	Heat flow	none	Funded (NSF) cruise, spring 1994		
11a	Magnetics	none			
11b	Gravity	none			
12	Cores: paleoenvironment / geotechnical	vital	Continuously cored wells UNDA and CLINO; Shallow piston cores on funded (NSF) cruise, spring 1994	√	√
13	Rock Sampling	none			
14	Current meter	desirable, but may be required in some cases	Physical oceanography data (subsurface currents, CTD, XBT, current velocities, etc.)	√	√

SSP comments: Funded cruise in spring 1994 to recover high-resolution MCS, side-scan sonar and 3.5 kHz lines, SCS and shallow piston cores across proposed sites, and heat flow across slope transect.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Bahamas Transect	Proposal #: 412-Add2
Site: BT-4	Proposed total depth (m): 820 m
Area: Straits of Florida	Proposed sed. penetration (m): 820 m
Lat/Long: 24°28'N/79°21'30"W	Proposed basement penetration: (m):
Water depth: 600 m	APC/XCB/RCB? 2-APC/XCB/RCB
Who filled out worksheet? Sibuet/Blum	Date of worksheet: 8 Nov 1993

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	Funded (NSF) cruise, spring 1994		
3	MCS &Seismic velocity determination	none	Western MSC line GBB8203X MCS velocities	√ √ √	√ √ √
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	USGS SCS grid Intera Info. Techn. MCS lines 10, 11, 12, 22, 23	√	
5	Refraction	none			
6	3.5 or 12 kHz echosounder	required	Funded (NSF) cruise, spring 1994		
7	Swath bathymetry	desirable, but may be required in some cases			
8	Side-looking sonar	desirable, but may be required in some cases	Funded (NSF) cruise, spring 1994		
9	Photography or Video	none	USGS submersible dives	√	
10	Heat flow	none	Funded (NSF) cruise, spring 1994		
11a	Magnetics	none			
11b	Gravity	none			
12	Cores: paleoenvironment / geotechnical	vital	Continuously cored wells UNDA and CLINO; Shallow piston cores on funded (NSF) cruise, spring 1994	√	√
13	Rock Sampling	none			
14	Current meter	desirable, but may be required in some cases	Physical oceanography data (subsurface currents, CTD, XBT, current velocities, etc.)	√	√

SSP comments: Funded cruise in spring 1994 to recover high-resolution MCS, side-scan sonar and 3.5 kHz lines, SCS and shallow piston cores across proposed sites, and heat flow across slope transect.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Bahamas Transect	Proposal #: 412-Add2
Site: F-1	Proposed total depth (m): 300 m
Area: Straits of Florida	Proposed sed. penetration (m): 300 m
Lat/Long: 25°30'N/79°15'W	Proposed basement penetration: (m):
Water depth: 200 m	APC/XCB/RCB? 2-APC/XCB
Who filled out worksheet? Sibuet/Blum	Date of worksheet: 8 Nov 1993

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital	Funded (NSF) cruise, spring 1994		
3	MCS &Seismic velocity determination	none		√ √ √	√ √ √
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	USGS SCS grid Western MSC line GBB8203X Intera Info. Techn. MCS lines 10, 11, 12, 22, 23 MCS velocities	√	
5	Refraction	none			
6	3.5 or 12 kHz echosounder	required	Funded (NSF) cruise, spring 1994		
7	Swath bathymetry	desirable, but may be required in some cases			
8	Side-looking sonar	desirable, but may be required in some cases	Funded (NSF) cruise, spring 1994		
9	Photography or Video	none	USGS submersible dives	√	
10	Heat flow	none	Funded (NSF) cruise, spring 1994		
11a	Magnetics	none			
11b	Gravity	none			
12	Cores: paleoenvironment / geotechnical	vital	Continuously cored wells UNDA and CLINO; Shallow piston cores on funded (NSF) cruise, spring 1994	√	√
13	Rock Sampling	none			
14	Current meter	desirable, but may be required in some cases	Physical oceanography data (subsurface currents, CTD, XBT, current velocities, etc.)	√	√

SSP comments: Funded cruise in spring 1994 to recover high-resolution MCS, side-scan sonar and 3.5 kHz lines, SCS and shallow piston cores across proposed sites, and heat flow across slope transect.

SSP Agenda Item 6.3

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Cariaco Basin	Proposal #: 434---
Site: Cariaco 1	Proposed total depth (m): 200m
Area: Cariaco Basin	Proposed sed. penetration (m): 200m
Lat/Long: 10°39.9'N 65°00'W	Proposed basement penetration: (m): none
Water depth: 920m	APC/XCB/RCB? APC
Who filled out worksheet? Kim Kastens	Date of worksheet: 10 Nov 1993

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable		NN	NN
2	High resolution SCS	vital	80cu in water gun single channel seismic digitally recorded grid from PLUME-07 cruise. Examples in proposal are shipboard analog, not processed, but of good quality nonetheless	yes	no
3	MCS &Seismic velocity determination	none		NN	NN
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	extensive grid, 5km line spacing, PLUME-07 expedition, proposed site is on intersection of two lines	yes	no
5	Refraction	none		NN	NN
6	3.5 or 12 kHz echosounder	required	extensive grid (same as SCS), no examples shown in proposal	yes	no
7	Swath bathymetry	desirable, but may be required in some cases		NN	NN
8	Side-looking sonar	desirable, but may be required in some cases		NN	NN
9	Photography or Video	none		NN	NN
10	Heat flow	none		NN	NN
11a	Magnetics	none	Magnetics along seismic grid, according to proposal	yes	no
11b	Gravity	none	Gravity along seismic grid, according to proposal	yes	no
12	Cores: paleoenvironment / geotechnical	vital	Dozens of cores within 50km of proposed site, and several cores with a few km according to figure 4 of proposal; not clear whether there is one exactly on sites. Cores are box cores, piston cores & large diameter gravity cores. Geochemical, lithologic, and paleontological logs of one nearby core (PLUME07-39PC) are in proposal.	yes	yes
13	Rock Sampling	none		NN	NN
14	Current meter	desirable, but may be required in some cases	Fairly shallow coastal waters. Need evidence that station keeping won't be a problem.	??	??

SSP comments: (NN=not needed) (a) No data package has yet been submitted to the data bank. However, based on the information in the proposal, it appears that the quality and quantity of background data existing for this site is more than sufficient to support the proposed drilling plan. (b) Because of relatively shallow water and coastal setting, proponents should provide some information about water currents to judge difficulty of station keeping. (c) Because of coastal setting, proponents should investigate possible manmade hazards.

SSP Agenda Item 7.1

ODP Site Survey Worksheet: Offset Drilling, Tectonic Windows

Proposal name: Return to 735B	Proposal #: 300-Rev
Site: 735B (deepening)	Proposed total depth (m): 2000 m
Area: SWIR	Proposed sed. penetration (m): 0
Lat/Long: 57°16.0' E; 32°43.4 S	Proposed basement penetration: (m): 1500
Water depth: 700 m	APC/XCB/RCB/re-entry? RCB/Re-Entry
Who filled out worksheet? Shiri Srivastava; 1st revision Kim Kastens	Date of worksheet: July 28/93; 1st revision 19 Nov 1993

This site has been assessed under the draft Site Survey guidelines for "Offset drilling into Tectonic Windows. See SSP Minutes, April 1993 more information. These guidelines are under revision. Contact SSP or Data Bank for current information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS		Shallow penetration	X	
2	High resolution SCS	May be required; will be required if sites are in sediment pockets	None		
3	MCS & seismic velocity determination	MCS or OBS refraction recommended to determine the regional crustal structure	None		
4	Grid of intersecting seismic lines	Crossing lines over site not required; regional grid recommended	Some Scs	X	
5a	Refraction (shallow source)	MCS or OBS refraction recommended to determine the regional crustal structure	None		
5b	Refraction (deep source)	Experimental technique; may be useful	None		
6a	3.5 echosounder or equivalent	recommended	None		
6b	12kHz		None		
7	Swath bathymetry	Required	Yes, Seabeam	X	X
8a	Side-looking sonar (shallow tow)	Recommended			
8b	SLS (near-bottom tow)	Recommended (may be upgraded to "required")	Proposed for 1994, depends on funding		
9	Photography or Video	Required	Some exists from Leg 118 video survey, additional proposed for 1994	X	
10	Heat flow		None		
11a	Magnetics	Regional magnetic survey recommended	Yes, detailed	X	X
11b	Gravity	Recommended	Yes	X	
12	Cores: paleo-environment/ geotechnical		None		
13	Rock Sampling	Required	From Leg 118, also some dredged samples	X	
14	Current meter	Will be required where swift currents present	None		
15	OBS microseismicity	May be useful where faults are still active	None		

SSP comments: Adequate bathymetry gravity and magnetic data exist for the area. These were collected prior to Leg 118. SSP suggests that a near bottom seismic refraction experiment before deep drilling could provide valuable information about vertical variability in the rock types, about the depth to Moho, and about the extent and dip of the postulated shear zones. In addition, we recommend acquisition of data aimed at creating a surficial geological map of the wave cut platform (some combination of submersible mapping, ROV, side-looking sonar, towed camera sled, rock drill, precisely located dredging, etc.) to define the horizontal scale of the phenomena of interest.

ODP Site Survey Worksheet: Offset Drilling, Tectonic Windows

Proposal name: Return to 735B	Proposal #: 300-Rev
Site: 735C, D, E, F	Proposed total depth (m): 500m
Area: SWIR	Proposed sed. penetration (m): 0
Lat/Long: 57°16.0' E; 32°43.4 S	Proposed basement penetration: (m): 500
Water depth: 700 m	APC/XCB/RCB/re-entry? RCB
Who filled out worksheet? Shiri Srivastava; 1st revision, Kim Kastens	Date of worksheet: July 28/93; 1st revision Nov. 19, 1993

This site has been assessed under the draft Site Survey guidelines for "Offset drilling into Tectonic Windows. See SSP Minutes, April 1993 more information. These guidelines are under revision. Contact SSP or Data Bank for current information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS		Shallow penetration	X	
2	High resolution SCS	May be required; will be required if sites are in sediment pockets	None		
3	MCS & seismic velocity determination	MCS or OBS refraction recommended to determine the regional crustal structure	None		
4	Grid of intersecting seismic lines	Crossing lines over site not required; regional grid recommended	Some Scs	X	
5a	Refraction (shallow source)	MCS or OBS refraction recommended to determine the regional crustal structure	None		
5b	Refraction (deep source)	Experimental technique; may be useful	None		
6a	3.5 echosounder or equivalent	recommended	None		
6b	12kHz		None		
7	Swath bathymetry	Required	Yes, Seabeam	X	X
8a	Side-looking sonar (shallow tow)	Recommended	Proposed for , 1994 depends on funding		
8b	SLS (near-bottom tow)	Recommended (may be upgraded to "required")	Proposed for 1994, depends on funding		
9	Photography or Video	Required	Some exists, additional planned for 1994	X	
10	Heat flow		None		
11a	Magnetics	Regional magnetic survey recommended	Yes, detailed	X	X
11b	Gravity	Recommended	Yes, detailed	??	
12	Cores: paleo-environment/ geotechnical		None		
13	Rock Sampling	Required	From Leg 118, also some dredged samples	X	
14	Current meter	Will be required where swift currents present	None		
15	OBS microseismicity	May be useful where faults are still active	None		

SSP comments: Adequate bathymetry, gravity and magnetic data exist for the area. These were collected prior to Leg 118. Additional data (ROV, side-looking sonar, dredging) is proposed to be collected during 1994 pending on NSF approval . We feel that the geological map produced from such a survey would be invaluable in determining the lateral variability of the phenomena of interest in this transect of shallow holes. At present the sites have been located based on a interpretive cross section compiled from numerous geological inferences; observational control is sparse.

SSP Agenda Item 8.1

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: NAAG II		Proposal #: 406
Site: FENNI-1 (FD-1a)	Proposed total depth (m): 100	
Area: Feni Drift	Proposed sed. penetration (m): 100	
Lat/Long: 55°30'N, 14°42.4'W	Proposed basement penetration: (m): none	
Water depth: 2157m	APC/XCB/RCB? APC	
Who filled out worksheet? Shiri Srivastava	Date of worksheet: Nov 8, 1993	

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital			X
3	MCS &Seismic velocity determination	none			
4	Grid of intersecting seismic lines	desirable, but may be required in some cases			
5	Refraction	none			
6	3.5 or 12 kHz echosounder	required		X	
7	Swath bathymetry	desirable, but may be required in some cases			
8	Side-looking sonar	desirable, but may be required in some cases			
9	Photography or Video	none			
10	Heat flow	none			
11a	Magnetics	none		X	
11b	Gravity	none			
12	Cores: paleoenvironment / geotechnical	vital	Core description and analysis provided		X
13	Rock Sampling	none			
14	Current meter	desirable, but may be required in some cases			

SSP comments: The site is located on a single channel high resolution line and other lines north and south of sites have been provided. No cross line exist at this iste.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: NAAG II		Proposal #: 406
Site: FENI-2 (FD-1b)	Proposed total depth (m): 300	
Area: Feni Drift	Proposed sed. penetration (m): 300	
Lat/Long: 55°30'N, 14°42.4'W	Proposed basement penetration: (m): none	
Water depth: 2157m	APC/XCB/RCB? APC	
Who filled out worksheet? Shiri Srivastava	Date of worksheet: Nov 8, 1993	

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital			X
3	MCS &Seismic velocity determination	none			
4	Grid of intersecting seismic lines	desirable, but may be required in some cases			
5	Refraction	none			
6	3.5 or 12 kHz echosounder	required		X	
7	Swath bathymetry	desirable, but may be required in some cases			
	Side-looking sonar	desirable, but may be required in some cases			
9	Photography or Video	none			
10	Heat flow	none			
11a	Magnetics	none		X	
11b	Gravity	none			
12	Cores: paleoenvironment / geotechnical	vital	Core description and analysis provided		X
13	Rock Sampling	none			
14	Current meter	desirable, but may be required in some cases			

SSP comments: The site is located on a single channel high resolution line and other lines north and south of sites have been provided. No cross line exist at this iste.

SSP Agenda Item 8.1

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: NAAG II	Proposal #: 406
Site: GARDAR-1 (GGC-11)	Proposed total depth (m): 400
Area: Gardar Drift	Proposed sed. penetration (m): 400
Lat/Long: 60°25.30'N, 23°23.23W	Proposed basement penetration: (m): none
Water depth: 1980	APC/XCB/RCB? APC, XCB
Who filled out worksheet? Shiri Srivastava	Date of worksheet: Nov 8, 1993

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital			X
3	MCS &Seismic velocity determination	none			
4	Grid of intersecting seismic lines	desirable, but may be required in some cases			
5	Refraction	none			
6	3.5 or 12 kHz echosounder	required		X	
7	Swath bathymetry	desirable, but may be required in some cases		X	
8	Side-looking sonar	desirable, but may be required in some cases			
9	Photography or Video	none			
10	Heat flow	none			
11a	Magnetics	none			
11b	Gravity	none			
12	Cores: paleoenvironment / geotechnical	vital	Core description and analysis provided		X
13	Rock Sampling	none			
14	Current meter	desirable, but may be required in some cases			

SSP comments: The site is located on a single channel high resolution line . The site is not located at the crossing with another line which exist west of this site.

SSP Agenda Item 8.1

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: NAAG II		Proposal #: 416
Site: SVAL-1	Proposed total depth (m): 800	
Area: Off Svalbard margin	Proposed sed. penetration (m): 800	
Lat/Long: 77°15.5'N, 9°5.5W	Proposed basement penetration: (m): none	
Water depth: 2120	APC/XCB/RCB? APC, XCB	
Who filled out worksheet? Shiri Srivastava		Date of worksheet: Nov 8, 1993

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable			
2	High resolution SCS	vital			X
3	MCS &Seismic velocity determination	none	Two MCS lines, one to the north and one to the south exist		X
4	Grid of intersecting seismic lines	desirable, but may be required in some cases			X
5	Refraction	none			
6	3.5 or 12 kHz echosounder	required			X
7	Swath bathymetry	desirable, but may be required in some cases	Ordinar bathymetry	X	
	Side-looking sonar	desirable, but may be required in some cases		X	
9	Photography or Video	none			
10	Heat flow	none			
11a	Magnetics	none		X	
11b	Gravity	none			X
12	Cores: paleoenvironment / geotechnical	vital	Core description and analysis provided		X
13	Rock Sampling	none			
14	Current meter	desirable, but may be required in some cases			

SSP comments: The site is located in a region of mud diapir. Some disturbance in the sediments at the site can be seen. It is recommended to move this site to a region free of mud diapirs. Additional data is to be collected in this region in 1994 which may help to relocate this site.

SSP Agenda Item 8.2

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Mediterranean Sapropels		Proposal #: 391-Rev2
Site: MedSap 1C (replaces 1A & 1B)	Proposed total depth (m): 100m (proposal)	
Area: Erastosthenes Seamount	Proposed sed. penetration (m): 100m	
Lat/Long: 33°40.6'N, 32°42.6'E (proposal) or 33°40.6'N, 32°42.6'E (Kidd cruise report)		Proposed basement penetration: (m): none
Water depth: 870m (proposal) or 912m (Kidd cruise report)	APC/XCB/RCB? APC	
Who filled out worksheet? Kim Kastens	Date of worksheet: July 27, 1993, 1st revision Nov 18, 1993	

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable	none, not needed	NN	NN
2	High resolution SCS	vital	Sharkov lines 31 and 32 pass near site. They are in the Data Bank but do not show adequate detail in the Plio-Pleistocene. Line 120 (20 channel airgun) of cruise Tredmar-3 passes across the site. Line 122 of Tredmar-3 cruise passes about 3miles from site. Tredmar-3 lines are in Data Bank at adequate scale, of adequate quality.	yes	yes
3	MCS &Seismic velocity determination	none	MCS line MS-54 crosses near site. Photocopy in Data Bank	yes	yes
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	see data type 2	yes	yes
5	Refraction	none	none, not needed	NN	NN
6	3.5 or 12 kHz echosounder	required	excellent quality subbottom records from nearbottom towed sonar ("MAC" system), line 20 of Tredmar-3 cruise, in Data Bank at large scale.	yes	yes
7	Swath bathymetry	desirable, but may be required in some cases	According to email from Rob Kidd, the Eratosthenes data package for the Med Ridge proposal includes a multi-beam map from Udinsev	yes	??
8	Side-looking sonar	desirable, but may be required in some cases	Deep towed side-looking sonar line 20 ("MAC" system) and long range side-looking sonar line 129 ("OKEAN") system, both from Tredmar-3 cruise cross site. Both data sets are in Data Bank at good scale, of good quality.	yes	yes
9	Photography or Video	none	none, not needed	NN	NN
10	Heat flow	none	none, not needed	NN	NN
11a	Magnetics	none	none, not needed	NN	NN
11b	Gravity	none	none, not needed	NN	NN
12	Cores: paleoenvironment / geotechnical	vital	MARFLUX core K20B exactly at site MedSap 1C recovered 10 sapropels back to lower middle Pleistocene. Gravity core 106 of cruise Tredmar-3 on the site recovered 4 sapropels; core log is in Tredmar-3 cruise report in DB	yes	yes
13	Rock Sampling	none	none, not needed	NN	NN
14	Current meter	desirable, but may be required in some cases	none, not needed	NN	NN

SSP comments: (NN= not necessary) (1) There is a 5 mile discrepency in the lat/long and water depth of the Site 1C in the proposal 391rev-2 and in the data package and cruise report from the Tredmar cruise, submitted by Rob Kidd. This form is filled out with respect to a site at the lat/long in the proposal. (2) The navigation chart for the Tredmar-3 cruise is small and the times cannot be distinguished adequately. (3) This site is ready for scheduling from a site-survey readiness perspective.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Mediterranean Sapropels	Proposal #: 391-rev2
Site: Med Sap 2B	Proposed total depth (m): 150m
Area: Mediterranean Ridge	Proposed sed. penetration (m): 150m
Lat/Long: 33°45.1'N, 24°42.3'E (proposal) or 33°50.31'N, 25°53.24'E (Tredmar-3 cruise report)	Proposed basement penetration: (m): none
Water depth: 1930m (proposal) or 2173m (cruise report)	APC/XCB/RCB? APC
Who filled out worksheet? Kim Kastens	Date of worksheet: 27 July 1993, 1st revision Nov 18, 1993

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable		NN	NN
2	High resolution SCS	vital	Bannock Sparker line 89 a/0 crosses site: quality OK TREDMAR-III cruise (June-July 1993) 20channel arigun lines 106 and 109 cross site, quality ok, in DB at large scale	yes	yes
3	MCS &Seismic velocity determination	none	none, not needed	NN	NN
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	see data type 2	yes	yes
5	Refraction	none	none, not needed	NN	NN
6	3.5 or 12 kHz echosounder	required	3.5kHz on line BAN 89a/0 is in Data Bank. Excellent quality subbottom records from nearbottom towed sonar ("MAC" system), Tredmar-3 cruise, in Data Bank at large scale.	yes	yes
	Swath bathymetry	desirable, but may be required in some cases	(See note 1)	NN	NN
8	Side-looking sonar	desirable, but may be required in some cases	Deep towed side-looking sonar ("MAC" system) and long range side-looking sonar ("OKEAN") system cross site, both from Tredmar-3 cruise cross site. Both data sets are in Data Bank at good scale, of good quality.	yes	yes
9	Photography or Video	none	none, not needed	NN	NN
10	Heat flow	none	none, not needed	NN	NN
11a	Magnetics	none	none, not needed	NN	NN
11b	Gravity	none	none, not needed	NN	NN
12	Cores: paleoenvironment / geotechnical	vital	Age and sedimentological logs for gravity core TTR3-97G (at the cruise report site location) is in Data Bank in Tredmar cruise report.	yes	yes
13	Rock Sampling	none	none, not needed	NN	NN
14	Current meter	desirable, but may be required in some cases	none, not needed	NN	NN

SSP comments: (NN=not needed) (1) Swath bathymetry and/or crossing seismic lines and/or side looking sonar data must be used to define the depositional setting in this complex topography. Crossing seismic lines confirm that proponents have found as flat a place as possible on the Med Ridge. (2) There is a 10 mile discrepency in the lat/long and water depth of the Site 2B in the proposal 391rev-2 and in the data package and cruise report from the Tredmar-3 cruise, submitted by Rob Kidd. This form is filled out with respect to a site at the lat/long in the proposal. (3) The navigation chart for the Tredmar-3 cruise is small and the times cannot be distinguished adequately. (4) This site is ready for scheduling from a site-survey readiness perspective.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Mediterranean Sapropels	Proposal #: 391rev2
Site: MedSap 2C (replaces 2A) reoccupation of DSDP Site 125	Proposed total depth (m): 150
Area: western Mediterranean Ridge	Proposed sed. penetration (m): 150
Lat/Long: 34°37.5'N, 20°25.8'E	Proposed basement penetration: (m): none
Water depth: 2782m	APC/XCB/RCB? APC
Who filled out worksheet? Kim Kastens	Date of worksheet: July 27, 1993; unchanged Nov-'93

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable		NN	NN
2	High resolution SCS	vital	Conrad line Challenger data from Leg 13 BAN89a line 0 TREDMAR III (June-July 1993)	yes	
3	MCS &Seismic velocity determination	none		NN	NN
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	TREDMAR III (June-July 1993)		
5	Refraction	none		NN	NN
6	3.5 or 12 kHz echosounder	required	BAN89A line 0 (33kHz)	yes	
7	Swath bathymetry	desirable, but may be required in some cases		NN	NN
8	Side-looking sonar	desirable, but may be required in some cases		NN	NN
9	Photography or Video	none		NN	NN
10	Heat flow	none		NN	NN
11a	Magnetics	none		NN	NN
11b	Gravity	none		NN	NN
12	Cores: paleoenvironment / geotechnical	vital	DSDP Site 125	yes	yes
13	Rock Sampling	none		NN	NN
14	Current meter	desirable, but may be required in some cases		NN	NN

SSP comments: (NN=Not necessary) Because this is a reoccupation of a continuously-cored DSDP site that recovered the desired lithologies, SSP considers that this site is ready for drilling.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Mediterranean Sapropels	Proposal #: 391-rev2
Site: Med Sap 3	Proposed total depth (m): not specified
Area: Calabrian Ridge/Pisano Plateau	Proposed sed. penetration (m): not specified
Lat/Long: 36°15.25'N, 17°44.31'E	Proposed basement penetration: (m): none
Water depth: 3642m	APC/XCB/RCB? APC
Who filled out worksheet? Kim Kastens	Date of worksheet: 5 Nov 1992; revised 27 July 1993; 2nd revision 18 Nov 1993

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable	none, not required	NN	NN
2	High resolution SCS	vital	on intersection of Urania lines A3, A1 and A4. data are in Data Bank at large scale with excellent navigation. A hint of the M-reflector (base of Plio-Quaternary) can be seen.	yes	yes
3	MCS &Seismic velocity determination	none	none, not required	NN	NN
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	see data type 2	yes	yes
5	Refraction	none	none, not required	NN	NN
6	3.5 or 12 kHz echosounder	required	One 3.5kHz profile across site. Abundant Deep Tow 4.5kHz data exists in this area. Track chart is in Data Bank, but no data. 12kHz from Urania cruise is in the Data Bank	yes	yes
7	Swath bathymetry	desirable, but may be required in some cases	Deep Tow map, comparable in quality to swath bathymetric map, is in Data Bank	OK	OK
8	Side-looking sonar	desirable, but may be required in some cases	Deep Tow SLS data exists from this area, but it is not in the Data Bank (not required); GLORIA data exists across this site but in not in the Data Bank (not required)	yes	no NN
9	Photography or Video	none	none, not required	NN	NN
10	Heat flow	none	none, not required	NN	NN
11a	Magnetics	none	none, not required	NN	NN
11b	Gravity	none	none, not required	NN	NN
12	Cores: paleoenvironment / geotechnical	vital	Two excellent long (27m & 37m) cores (KC01 and KC01) at the proposed site, documenting numerous sapropels; core logs are in Data Bank. Numerous piston cores in the area, documented by reprints of Cita et al and Blechschmidt et al	yes	yes
13	Rock Sampling	none	none, not required	NN	NN
14	Current meter	desirable, but may be required in some cases	none, not required	NN	NN

SSP comments: (NN=Not necessary) Data set is complete

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Mediterranean Sapropels	Proposal #: 391-rev2
Site: MedSap 4A aka MedSap 4	Proposed total depth (m): 300m
Area: Gela Bank/ Sicily Channel	Proposed sed. penetration (m): 300m
Lat/Long: 37°01.9'N, 13°10.9'E	Proposed basement penetration: (m): none
Water depth: 470m	APC/XCB/RCB? APC
Who filled out worksheet? Kim Kastens	Date of worksheet: 5 Nov. 1992; revised 27 July 1993; 2nd revison 18 Nov 93

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable	none, not required	NN	NN
2	High resolution SCS	vital	R/V Tyro line SC4 and SC2. Data in data bank: excellent quality. Need sites marked on profiles. Navigation is page-size and does not have times marked.	yes	yes
3	MCS &Seismic velocity determination	none	Site is at intersection of MCS lines G82-142 and G82-121C. These two lines are in the Data Bank. Velocities are shown. Site locations are not indicated on profiles, and I cannot figure out the site locations from the navigation provided.	yes	yes
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	Site is at intersection of two MCS lines, and amid a dense grid (7.5km line spacing) of MCS lines. 4 SCS profiles collected on Tyro cruise are in Data Bank. Site is on crossing.	yes	yes
5	Refraction	none	none, not required	NN	NN
6	3.5 or 12 kHz echosounder	required	R/V Tyro line SC4 and SC2 are in data bank	yes	yes
7	Swath bathymetry	desirable, but may be required in some cases	none, not required	NN	NN
8	Side-looking sonar	desirable, but may be required in some cases	none, not required	NN	NN
9	Photography or Video	none	none, not required	NN	NN
10	Heat flow	none	none, not required	NN	NN
11a	Magnetics	none	none, not required	NN	NN
11b	Gravity	none	none, not required	NN	NN
12	Cores: paleoenvironment / geotechnical	vital	R/V Tyro core MT7 lithological log is in Data Bank	yes	yes
13	Rock Sampling	none	none, not required	NN	NN
14	Current meter	desirable, but may be required in some cases	none, not required	NN	NN

SSP comments: (1) Better navigation plot and/or lines with sites marked are needed for Tyro data. (2) Other than this detail, site is ready.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Mediterranean Sapropels	Proposal #: 391-rev2
Site: MedSap 4C (note this site is called 4B on site summary form and 4C in text; I use 4C to distinguish from old 4B in prop. 391-rev1	Proposed total depth (m): 450m
Area: Sicily Channel/ Gela Bank	Proposed sed. penetration (m): 450m
Lat/Long: 37°03.9'N, 13°15.3'E	Proposed basement penetration: (m): none
Water depth: 502m	APC/XCB/RCB? APC
Who filled out worksheet? Kim Kastens	Date of worksheet: 27 July 1993 ; revised 18 Nov 1993

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable	none, not required	NN	NN
2	High resolution SCS	vital	At intersection of R/V Tyro line SC7 and SC5, which are in the data bank at adequate scale and quality. Navigation is page-sized and does not have times marked; and profiles don't have sites marked.	yes	yes
3	MCS &Seismic velocity determination	none	MCS Line G82-122	yes	yes
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	4 SCS lines from Tyro. Site is on crossing	yes	yes
5	Refraction	none	none, not required	NN	NN
	3.5 or 12 kHz echosounder	required	included in cruise report: excellent quality	yes	yes
7	Swath bathymetry	desirable, but may be required in some cases	none, not required	NN	NN
8	Side-looking sonar	desirable, but may be required in some cases	none, not required	NN	NN
9	Photography or Video	none	none, not required	NN	NN
10	Heat flow	none	none, not required	NN	NN
11a	Magnetics	none	none, not required	NN	NN
11b	Gravity	none	none, not required	NN	NN
12	Cores: paleoenvironment / geotechnical	vital	R/V Tyro MT11 Core logs is in the proposal	yes	yes
13	Rock Sampling	none	none, not required	NN	NN
14	Current meter	desirable, but may be required in some cases	none, not required	NN	NN

SSP comments: Needs better navigation for Tyro data, and/or sites marked on profiles. Other than this, the site is ready to go.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Mediterranean Sapropels	Proposal #: 391-rev2
Site: Med Sap 5	Proposed total depth (m): 200m
Area: Tyrrhenian Sea Site 652	Proposed sed. penetration (m): 200m
Lat/Long: 40°21.3'N, 12°08.6'E	Proposed basement penetration: (m): none
Water depth: 3466	APC/XCB/RCB/re-entry? APC
Who filled out worksheet? Kim Kastens	Date of worksheet: 5 Nov 1992, revised 27 July 1993

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable	none, not required	NN	NN
2	High resolution SCS	vital	SCS data collected on the Resolution during leg 107	yes	yes
3	MCS &Seismic velocity determination	none	Site is on MCS line ST01 (sp 4250) and near MCS line ST09; both are in the Leg 107 data package.	yes	yes
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	Site is near the crossing of two MCS lines.	yes	yes
5	Refraction	none	none, not required	NN	NN
6	3.5 or 12 kHz echosounder	required	There should be 3.5kHz data collect on the Resolution on leg 107, but it is not mentioned in the proposal or included in the Data package.	yes	
7	Swath bathymetry	desirable, but may be required in some cases	none, not required	NN	NN
8	Side-looking sonar	desirable, but may be required in some cases	none, not required	NN	NN
9	Photography or Video	none	none, not required	NN	NN
10	Heat flow	none	none, not required	NN	NN
11a	Magnetics	none	none, not required	NN	NN
11b	Gravity	none	none, not required	NN	NN
12	Cores: paleoenvironment / geotechnical	vital	Reoccupation of ODP site 652	yes	yes
13	Rock Sampling	none	none, not required	NN	NN
14	Current meter	desirable, but may be required in some cases	none, not required	NN	NN

SSP comments: This site is a reoccupation of 652. Site 652 recovered a Plio-Pleistocene section without major unconformities. Site is OK to drill.

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Mediterranean Sapropels	Proposal #: 391-rev2
Site: MedSap 6A	Proposed total depth (m): 350m
Area: Menorca Ridge	Proposed sed. penetration (m): 350m
Lat/Long: 38°53.9'N, 4°30.5'E (slightly moved from MedSap 6A in prop. 391-rev1)	Proposed basement penetration: (m): none
Water depth: 2369m	APC/XCB/RCB/re-entry? APC
Who filled out worksheet? Kim Kastens	Date of worksheet: 5 Nov 1992, revised 27 July 1993

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable	none, not required	NN	NN
2	High resolution SCS	vital	Site is at intersection of lines BAL 84-15 and BAL 84-9 (R/V Bannock). Both profiles are in Data Bank at adequate scale with adequate navigation. Data reaches M-reflector (aka Y reflector), which is top of Miocene, so penetration is adequate for this program. Crossing Tyro lines MR-5 & MR-2 profiles are in data bank, but the page sized track chart has no times.	yes	yes
3	MCS &Seismic velocity determination	none	none, not required	NN	NN
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	Site is at intersection of lines BAL 84-15 and BAL 84-9 (R/V Bannock). There is a regional grid of additional 30kjoule sparker lines (10-20km line spacing).	yes	yes
5	Refraction	none	none, not required	NN	NN
6	3.5 or 12 kHz echosounder	required	3.5 kHz from Tyro lines MR2 and MR5 are in Data Bank: Quality OK.	yes	yes
7	Swath bathymetry	desirable, but may be required in some cases	none, not required	NN	NN
8	Side-looking sonar	desirable, but may be required in some cases	none, not required	NN	NN
9	Photography or Video	none	none, not required	NN	NN
10	Heat flow	none	none, not required	NN	NN
11a	Magnetics	none	none, not required	NN	NN
11b	Gravity	none	none, not required	NN	NN
12	Cores: paleoenvironment / geotechnical	vital	Tyro cores MT 12, 14, 15 Core logs are not in D.B., but they are in proposal	yes	yes
13	Rock Sampling	none	none, not required	NN	NN
14	Current meter	desirable, but may be required in some cases	none, not required	NN	NN

SSP comments: (1) Need better navigation for Tyro lines. (2) Otherwise ready to go

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: Mediterranean Sapropels	Proposal #: 391-rev2
Site: MedSap 7B (replaces 7A) reoccupation of DSDP 121	Proposed total depth (m): 690m
Area: Alboran Sea	Proposed sed. penetration (m): 690m
Lat/Long: 36°09.7'N, 4°22.4'W	Proposed basement penetration: (m): none
Water depth: 1163m	APC/XCB/RCB? APC
Who filled out worksheet? Kim Kastens	Date of worksheet: 27 July 1993; no change Nov 93

This site has been assessed under the Site Survey guidelines for Target Type "A", defined as "Paleoenvironment or Fan; generally APC/XCB penetration." See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable	none, not required	NN	NN
2	High resolution SCS	vital	Site summary form refers to 121 site survey package, but there were no site survey packages in those olden days. There is a Challenger airgun profile in the Blue book, which is reasonably good quality.	yes	yes
3	MCS &Seismic velocity determination	none	DSDP 121 Init. Repts chapter illustrates a Jean Charcot "Flexotir" profile across the site.	yes	no
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	none, not required	NN	NN
5	Refraction	none	none, not required	NN	NN
6	3.5 or 12 kHz echosounder	required	Site summary form refers to 121 site survey package, but there were no site survey packages in those olden days.		
7	Swath bathymetry	desirable, but may be required in some cases	none, not required	NN	NN
8	Side-looking sonar	desirable, but may be required in some cases	none, not required	NN	NN
9	Photography or Video	none	none, not required	NN	NN
10	Heat flow	none	none, not required	NN	NN
11a	Magnetics	none	none, not required	NN	NN
11b	Gravity	none	none, not required	NN	NN
12	Cores: paleoenvironment / geotechnical	vital	DSDP 121 (was only spot cored; has a big hiatus omiting lower Pliocene; has lots of turbidites in lower Pleistocene and Pliocene section) Data package includes piston core TM 16 from Tyro but it's not too close (36°01'50"N, 03°51'88"W)	yes	yes
13	Rock Sampling	none	none, not required	NN	NN
14	Current meter	desirable, but may be required in some cases	none, not required	NN	NN

SSP comments: (1) SSP grungingly approves this reoccupation site. The data in hand (drilling and seismic) show an angular unconformity in the lower Pliocene, and a section full of turbidites. The data in hand suggest that this is not a very good place to achieve the desired result of recovering a complete record of Plio-Pleistocene paleoceanographic conditions. (2) SSP believes that a more complete section, in a less turbidite-effected spot, can be found in the Alboran, and encourages the proponents to submit an alternate site for consideration at a future SSP meeting.

SSP Agenda item 8.3

ODP Site Survey Worksheet: Paleoenvironment or Fan

Proposal name: W N Atl Sediment Drifts	Proposal #: 404
Site: **BR-1**	Proposed total depth (m): 300
Area: N Bermuda Rise	Proposed sed. penetration (m): 300
Lat/Long: 33° 41.2 N, 57° 36.9' W	Proposed basement penetration: (m): 0
Water depth: 4500 m	APC/XCB/RCB/re-entry? 4 APC's to 200 m; XCB to TD
Who filled out worksheet? G. Mountain	Date of worksheet: 11/4/93

This site has been assessed under the Site Survey guidelines for Target Type A, defined as Paleoenvironment or Fan; generally APC/XCB penetration.See Joides Journal, vol.18, Feb 1992, p.31-33 for more information.

	DATA TYPE	GUIDELINE	STATUS OF DATA	exists	in DB
1	Deep penetration SCS	desirable	NONE		
2	High resolution SCS	vital	page-size photos submitted 6/29/93; marginal quality; accompanying navigation is hand-drawn bridge plots; drill site not on SCS line		
3	MCS &Seismic velocity determination	none	NONE		
4	Grid of intersecting seismic lines	desirable, but may be required in some cases	marginal detail, navigation is hand-drawn bridge plots		
5	Refraction	none	NONE		
6	3.5 or 12 kHz echosounder	required	page-size photos submitted 6/29/93	√	√
7	Swath bathymetry	desirable, but may be required in some cases	NONE		
8	Side-looking sonar	desirable, but may be required in some cases	NONE		
9	Photography or Video	none	NONE		
10	Heat flow	none	NONE		
11a	Magnetics	none	NONE		
11b	Gravity	none	NONE		
12	Cores: paleoenvironment / geotechnical	vital	Knorr 31 - GPC 5	√	
13	Rock Sampling	none	NONE		
14	Current meter	desirable, but may be required in some cases	NONE		

SSP comments: proponent thus far unsuccessful in getting Hudson 89-038 SCS data; search in LDEO archives May 93 found no relevant data; site not located on seismic line

SSP Agenda Item 8.3

Site Survey Data Summary: W N Atlantic Sediment Drifts - Blake Outer Ridge only

	Site	BBOR-1	BBOR-2	BBOR-3	BBOR-4	BBOR-5	BBOR-6	BBOR-7	BBOR-8
	Latitude:	28° 14.7' N	28° 15.0' N	28° 15.0' N	29° 18.5' N	30° 39.8' N	31° 40.0' N	32° 04.5' N	32° 31.5' N
	Longitude:	74° 26.4' W	74° 04.0' W	74° 09.0' W	73° 11.0' W	74° 14.5' W	75° 16.5' W	76° 28.0' W	76° 35.0' W
	Environment:	Paleoenv	Paleoenv	Paleoenv	Paleoenv	Paleoenv	Paleoenv	Paleoenv	Paleoenv
	Water Depth:	4760 m	4500 m	4250 m	4000 m	3500 m	3000 m	2500 m	2250 m
	Sed. Thickness:	1000 m ?	1000 m ?	1000 m ?	1000 m ?	1000 m ?	1000 m ?	1000 m ?	1000 m ?
SSP	Penetration:	100 m	300 m	150 m	250 m	250 m	250 m	250 m	250 m
(X)	Deep penetration SCS								
X	High-resolution SCS								
	MCS + Velocities				[Line 87#]	[Line 87#]	[Line 87#]	[Line 87#] [BT-1†]	[Line 87#] [BT-1†]
(X)*	Seismic grid								
	Seismic refraction								
X	3.5 kHz	[√], ‡	[√], ‡	[√], ‡	[√], ‡	[√], ‡	[√], ‡	[√], ‡	[√], ‡
(X)*	Multibeam bathymetry								
(X)*	High-resolution imagery	[√]	[√]	[√]					
	Heat flow								
	Magnetics + Gravity								
X	Paleo/Geotechnical cores	[√], ‡	[√], ‡	[√], ‡	[√], ‡	[√], ‡	[√], ‡	[√], ‡	[√], ‡
	Dredges								
(X)*	Current meter	[√]	[√]	[√]					

11/15/93

L-DGO
† USGS
‡ re-surveyed - Nov,1993

√ = available
[ ] = not in data bank