F I N A L

JOIDES SITE SURVEY PANEL MINUTES

MARCH 26-28, 1991

Ocean Drilling Program
Texas A & M University, College Station, Texas

Members: Kidd, Rob (University of Wales, Cardiff, UK) Chairman
Farre, John (EXXON, USA)
Hirata, Naoshi (Chiba University, Japan)
Kastens, Kim (LDGO, USA)
Larsen, Birger (Geological Survey of Denmark, ESF)
Lewis, Steve (USGS, Menlo Park, USA)
Louden, Keith (Dalhousie University, Halifax, Canada)
Meyer, Heinrich (BGR, Germany)
Pautot, Guy (IFREMER, France)
Von Herzen, Dick (WHOI, USA)

Liaisons: Blum, Peter (JOIDES Office, UT)
Brenner, Carl (Site Survey Data Bank, LDGO)
Garrison, Lou (PPSP)
Meyer, Audrey (ODP/TAMU)
Watkins, Joel (PCOM)

Guest: Francis, Tim (ODP/TAMU)

Apologies: Ball, Mahlon (PPSP)
Moran, Kate (SMP)
Trehu, Ann (Oregon State University)

SITE SURVEY PANEL, EXECUTIVE SUMMARY
ODP/TAMU, March 26-28, 1991

The College Station Site Survey Panel Meeting was concerned with considering the final status of the site survey packages for the FY'92 drilling, now set for Pacific programs by PCOM at its Hawaii meeting, and then with moving on to initial assessments of the presently highest-ranked Atlantic proposals by SSP's assigned "watchdogs". We also set in place procedures for handling the new S-proposals and tightened up our communications to handle our new phase of Atlantic assessments.

SSP Consensus 1: SSP will make its evaluations of S-proposals based on positive recommendations for drilling by one or more thematic panels. S-proposals will be mailed to all SSP members. Only those S-proposals favoured during the thematic panel review stage will be considered in SSP mail review. SSP Chairman will report the Panel's evaluation to the JOIDES Office after contacting members with appropriate expertise to the proposal.The following schedule is recommended:

S-proposals accepted by JO until	June 1
Thematic panel reviews back to JO by	July 1
SSP reviews back to JO by	August 1

SSP Consensus 2: SSP 'watchdogs' on North Atlantic proposals will not take action in contacting proponents on decisions made at this meeting until JOIDES Office (Blum) distributes the results of PCOM's April global ranking '91.

SSP Consensus 3: The Data Bank should proceed with the program of digitizing its card catalogue. The possible advertisement and distribution of the results to the general JOIDES community will be discussed again when the task is completed.

SSP Consensus 4: SSP reiterates the concerns it has expressed over the quality of seismic data at sites in the Cretaceous Guyots component of the Atolls and Guyots program that have basement objectives. The Panel requests that the DPG examine whether these objectives might be met at other guyots where the seismic data is of better quality.

SSP Consensus 5: Provided that the additional *Detroit Seamount* site is selected within the 2400-3000 m depth interval in the seismic data grid of the Washington and Farnella seismic lines, the critical data for the North Pacific Transect are in hand. The seismic reflection data are poor for a number of sites, but are still judged as sufficient for the drilling objectives as long as high-quality seismics are run by the drillship on arrival and departure of the sites.

SSP Consensus 6: SSP reiterates its concerns that additional geophysical data is needed at Hess Deep, primarily detailed MCS data to characterise regional crustal structure and deep-towed seismics and sidescan to image possible rubble. The Panel notes that, even for the currently-envisaged single-site petrologic objectives, no survey package is yet available for assessment and reiterates its recommendation that this exciting science be drilled late in the FY'92 program.

SSP Consensus 7: None of the seismic data for the North Atlantic-Arctic Gateways Program are in the ODP data bank and proponents are urged to begin sending the pertinent material. In general, seismic data illustrated in the proposals are very low frequency so details of importance for the planning and interpretation are not visible. Higher frequency processing or collection of high resolution SCS will be required. As processes objectives in many sites are both for transport along-slope as well as transport down-slope, crossing seismic lines will be necessary. Data on frequency and size of ice-rafted debris should be compiled in order to select proper drilling methods.

SSP Consensus 8: One operational concern that needs prompt attention from the TAMU engineering staff (in the light of proposals with sea-level objectives on Atlantic margins) is shallow-water drilling. The New Jersey proposal, for example, includes sites (albeit lowest priority) in water as shallow as 20m, and is vitally dependent on successful drilling in water as shallow as 60m.

SSP Consensus 9: SSP considers that it is too early to make major changes in its guidelines, in particular for BSR and FZ drilling. It will, however, provide JOIDES Office with some minor modifications prior to publication of the revised 'Guidelines to Proponents'.

SITE SURVEY PANEL AGENDA
ODP/TAMU, March 26-28, 1991

1. PRELIMINARY MATTERS

   1. Introduction (Kidd)
   2. Logistics (A. Meyer)
   3. Review of LDGO Meeting
   4. Updated Ship Schedules
   5. Other Business for Agenda

2. REPORTS

   1. PCOM (Watkins)
   2. JOIDES (Blum)
   3. TAMU (A. Meyer)
   4. PANCHM (Kidd)
   5. PPSP (Garrison)
   6. DATA BANK (Brenner)
   7. SEA LEVEL WG (Watkins)
   8. DPG's:
      North Atlantic Rifted Margins (Blum)
      North Atlantic Arctic Gateways (Larsen)
      Atolls & Guyots (Watkins)

3. SCHEDULED LEGS - FY '92

   1. East Pacific Rise (Lewis)
   2. Sedimented Ridges (Louden)
   3. Chile Triple Junction (Lewis)
   4. Atolls & Guyots (Kidd)
   5. North Pacific Neogene (Larsen)
   6. Hess Deep (Kidd)
   7. Cascadia (Louden)

4. STATUS OF NORTH ATLANTIC PROGRAMS

   1. NORTH ATLANTIC RIFTED MARGINS DPG PROGRAMS [LEWIS]

      1. 310 Geochemical Sampling of Dipping Reflector Sequences (previously Kidd)
      2. 358 Sedimentary Equivalent of Dipping Reflector Sequences (previously H. Meyer)
      3. 365Rev Conjugate Passive Margins, North Atlantic (previously Louden)

   2. NORTH ATLANTIC ARCTIC GATEWAYS DPG PROGRAMS [LARSEN]

      1. 305 Arctic Ocean Drilling (Larsen)
      2. 320 Paleoceanography and paleoclimatology, Nordic Seas (Larsen)
      3. 336 Arctic to North Atlantic Gateways (Larsen)

   3. OTHER NORTH ATLANTIC PROGRAMS

      1. 361Rev Hydrothermal System, TAG Area (von Herzen)
      2. 369 Deep Mantle Section, MARK Area (Hirata)
      3. 348 Paleogene/Neogene Stratigraphy, New Jersey Margin (Kastens)
      4. 313 Major Oceanographic Pathway, Equatorial Atlantic (Pautot)
      5. 333 Evolution of Pull-Apart Basin, Cayman Trough (Lewis)
      6. 346Rev Drilling Equatorial Atlantic Transform Margin (Pautot)
      7. 347 Late Cenozoic Paleoceanography, South Equatorial Atlantic (Farre)
      8. 376 Layer 2/3 and Crust/Mantle Boundaries, Vema Fracture Zone (Hirata)
      9. 378Rev Growth and Fluid Evolution, Barbados Accretionary Wedge (Moore)
      10. 323Rev Alboran Basin and Atlantic-Mediterranean Gateway (Kastens)
      12. 343 Window of Cretaceous Volcanic Formation, Caribbean Zone (Farre)
      13. 345 and 345 Add. Sea Level and Paleoclimate, West Florida Margin (Moore)
      14. 372 Cenozoic Circulation & Chemical Gradients (Larsen)

5. "ADD-ON" SCIENCE PROPOSALS (Kidd/Brenner)

6. RECOMMENDATIONS FOR REVISION OF SSP GUIDELINES

   1. BSR Drilling (Garrison/Francis)
   2. Fracture Zone Drilling (Von Herzen/Kastens)
   3. Others

7. OTHER BUSINESS

   1. Feedback to Proponents (Blum/Kidd)
   2. E-Mail communications
   3. Panel Membership (Kidd)
   4. Next Meeting

SSP ACTION ITEMS

March 26-28, 1991
College Station, Texas

SSP Action Item 1 (Blum): JOIDES Office is asked to routinely send copies of revised active proposals to SSP watchdogs

SSP Action Item 2 (Blum): JOIDES Office is asked to replace the newly-added checkboxes "mature/immature" of the draft Thematic Panel review form (PRF) by a reference to SSP guidelines. Thematic panel members might not be familiar enough with the SSP guidelines, and it is not the mandate of the thematic panels to evaluate survey maturity of proposals.

SSP Action Item 3 (Blum): SSP asks the JOIDES Office to include SSP guidelines, or reference to them, with acknowledgement letters for new proposals.

SSP Action Item 4 (Lewis/Larsen): Revisions by DPG's of proposals into Programs have lead to consolidation of "watchdog" assignments by SSP. Lewis will take over as watchdog for the North Atlantic Rifted Margin Program and Larsen will handle the North Atlantic-Arctic Gateways Program

SSP Action Item 5: (Kidd): SSP Chairman will respond to proponent Piper's enquiry regarding the Navy Fan S-proposal noting that the intention is for 4 days of drilling maximum for supplemental science and suggesting he take action to obtain better quality seismic data.

SSP Action Item 6 (Kastens/Kidd): A revised version of the SSP Matrix of Data Requirements will be circulated by Kastens. SSP members will contact Kidd with any changes. Kidd will send the final version to Blum by 1 May.

SSP Action Item 7 (All SSP Members): The Panel will begin to communicate by E-Mail through a central Data Bank 'Mailbox'. Each will send an initial message to Carl Brenner using the following:

ODP@LAMONT.LDGO.COLUMBIA.EDU.

SSP Action Item 8 (Kidd): Chairman is to write to J. Austin requesting that the next *SSP Meeting* be held at *ORI, Tokyo* over three days: *September 3-5, 1991*, hosted by *Hirata*. The prime agenda items will be detailed assessment of N. Atlantic data sets in the light of the new PCOM global rankings.

1. PRELIMINARY MATTERS

1. Introduction Chairman Rob Kidd welcomed the Site Survey Panel to ODP/TAMU as the meeting began at 0840. He thanked Mrs Linda Storms and Audrey Meyer for their efforts in making the meeting arrangements at short notice when it became clear that SSP would not be able to meet in Tokyo as previously scheduled. Chairman welcomed Dr John Farre, the new US industry member on SSP from EXXON Houston. He noted that Dr Anne Trehu of OSU was now expected to attend the next SSP meeting. He accepted apologies from PPSP liaison Ball and SMP liaison Moran and explained that Lou Garrison would be attending in place of Mahlon Ball but he also noted that Tim Francis would be attending the first day 'in lieu of Lou'. A message was received that Keith Louden's arrival would be delayed probably to Day 2.

Chairman outlined the business to be covered at the College Station meeting, most importantly a review of the survey status of North Atlantic Programs in the light of recent DPG and WG meetings. He cautioned that SSP would probably have to review the assignments of proposals to "watchdogs"now that some proposals had been merged into programs by the DPG's.

2. Logistics. Audrey Meyer explained the logistical arrangements for the three days of the meeting, including meals and the availability of a tour of the ODP facility for members and liaisons who had not visited College Station previously.

3. Review of LDGO Meeting. Minutes changes and matters arising:
Chairman called for any changes required to the minutes of the LDGO meeting of SSP in July 1990. There were none and it was agreed that there were no matters arising that were not already on this meeting's agenda.

4. Updated Ship Schedules. New ship schedules were received from the Japanese, German and Canadian representatives, which appear as SSP Appendix 1.

5. Other business. No additional items were requested for this agenda.

2. REPORTS

1. PCOM (Watkins)

PCOM met in Hawaii, November 28 - December 1, 1990. The principal results of the meeting were as follows:

* USSR has joined ODP
* DCS testing has identified new problems and delays. As a result, the Sedimented Ridges II and Cascadia II objectives cannot be met during the current planning period.
* The new drilling schedule includes:
  - *504B
  - *Chile Triple Junction
  - *EPR
  - *Atolls and Guyots (2 legs)
  - *North Pacific Transect
  - *Cascadia
  - *Hess Deep
  - *Engineering Leg 4

A number of SSP members expressed surprise at PCOM's action on Hess Deep in the light of SSP's recommendations on its data set. There was more concern at the options in the operations schedule for FY92 that could involve drilling at Hess Deep on Leg 140 before any significant work could be done on the site survey package. Kidd, who was present for the PCOM discussions, reported that PCOM viewed this drilling as non-regional and not requiring the seismic coverage that SSP had recommended. It was agreed that an adequate site survey package would still be required and no time was allowed for this. The Panel would return to the Hess Deep item on Day 2.

PCOM agreed that Supplemental ("add-on") Science will be accommodated on an ad hoc basis, not to exceed 4 days per leg and 10 days in each fiscal year of drilling. "Supplemental science" is defined as high priority science that requires much less than a full leg and that can be addressed within the planned ship's track. PANCM had recommended ways of reviewing the proposals recognising that the procedures would impact SSP and PPSP activities greatest. (This item is addressed in Kidd's PANCHM report and later in the agenda).

PCOM established an Atolls and Guyots Working Group to recommend a program for the planned 2 legs and a Sea Level Working Group to set objectives for future drilling for sea level objectives.

2. JOIDES (Blum)

1. Proposal administration The recent process of setting up a database for proposal and other affairs of the JOIDES Office, and also changes in the JOIDES planning procedures, led to the modification of the proposal numbering systems. In particular ocean indices (A, B, ...) previously attached to the three digit numbers are omitted now. A detailed explanation was handed out (SSP Appendix 2). Some SSP members asked for clarification on how revised proposals were to be handled by the JOIDES Office and there was discussion of how SSP watchdogs were to receive revisions.
SSP Action Item 1 (Blum): JOIDES Office is asked to routinely send copies of revised active proposals to SSP watchdogs.

A modified proposal log sheet including thematic objective and site summaries was also presented and SSP members were asked for feedback on the usefulness of such a one sheet proposal summary for panel business and communication purposes.

The proposal review form (PRF), designed to communicate thematic panel reviews to proponents, and modified after discussions at the Panel Chairpersons meeting in Kailua-Kona, Nov 30 1990, was presented and discussed. It was agreed that references to maturity of proposals were likely to cause confusion and the pertinent reference should be to the survey maturity of proposals.
SSP Action Item 2 (Blum): JOIDES Office is asked to replace the newly added checkboxes "mature/immature" of the draft Thematic Panel review form (PRF) by a reference to SSP guidelines. Thematic panel members might not be familiar enough with the SSP guidelines, and it is not the mandate of the thematic panels to evaluate survey maturity of proposals.

A number of SSP members considered that the draft PRF form might be improved by reversing the order of the panel evaluation boxes to present a more positive aspect.

SSP Action Item 3 (Blum): SSP asks the JOIDES Office to include SSP guidelines, or reference to them, with acknowledgement letters for new proposals.

Note that modified SSP guidelines will be forwarded to the JOIDES Office in near future (see later discussion) to be included in the revised guidelines for proposal submission mentioned by Blum as being prepared for publication in the JOIDES Journal.

A list of proposal received by the JOIDES Office since July 1990 was distributed to the SSP members (SSP Appendix 3).

2. Supplemental Science Proposals (S-proposals). SSP was reminded that S-proposals for the scheduled Pacific legs received by the JOIDES Office between mid-February and June 1, 1991 (deadline) need to be mail-reviewed by thematic panels as well as SSP and PPSP. Thematic, site survey and safety reviews will be included in the PCOM agenda book for the August 22-24 PCOM meeting, where the decisions on supplemental science insertions will be made. SSP discussed the implications and timing of this procedure.
SSP Consensus 1: SSP will make its evaluations of S-proposals based on positive recommendations for drilling by one or more thematic panels. S-proposals will be mailed to all SSP members. Only those S-proposals favoured during the thematic panel review stage will be considered in SSP mail review. SSP Chairman will report the Panel's evaluation to the JOIDES Office after contacting members with appropriate expertise to the proposal.The following schedule is recommended:

S-proposals accepted by JO until	**June 1**
Thematic panel reviews back to JO by	**July 1**
SSP reviews back to JO by	**August 1**

3. Assessment of Atlantic proposals All active Atlantic/Mediterranean proposals were presented in a list subdivided according to the global ranking priorities set by the thematic panels during their spring 1990 sessions (Appendix 4). The 1-5 priority proposals of each panel were further subdivided into those forwarded to the North Atlantic Rifted Margins Detailed Planning Group (NARM-DPG), those forwarded to the North Atlantic - Arctic Gateways Detailed Planning Group (NAAG-DPG), and others. Because DPG reports will finally replace original proposals, re-assignments of SSP watchdogs was facilitated by this subdivision.
SSP Action Item 4 (Lewis/Larsen): Revisions by DPG's of proposals into Programs have lead to consolidation of "watchdog" assignments by SSP. Lewis will take over as watchdog for the North Atlantic Rifted Margin Program and Larsen will handle the North Atlantic-Arctic Gateways Program.
Atlantic proposals highly ranked last spring are likely to be highly ranked at the present global ranking, the result of which will be summarized and illustrated for the agenda book for the April PCOM meeting in Narragansett, Rhode Island. New proposals (last group on the list) may eventually occupy high ranks also.
SSP Consensus 2: SSP 'watchdogs' on North Atlantic proposals will not take action in contacting proponents on decisions made at this meeting until JOIDES Office (Blum) distributes the results of PCOM's April global ranking '91.

3. TAMU (A. Meyer)

1. New cruise schedule. Based on deliberations at the PCOM November 1990 meeting, a schedule of ODP cruises in the Pacific Ocean through January 1993 was compiled (see SSP Appendix 5). The decision about whether Leg 140 will deepen Hole 504B or drill in Hess Deep will be made after attempts at cleaning Hole 504B during Leg 137 are completed. Drilling plans and strategies for Legs 143 and 144 (Atolls and Guyots A & B) were prepared at the Atolls and Guyots Detailed Planning Group (February 27-28; Ann Arbor, Michigan), and will be discussed at the upcoming April PCOM meeting. OHP discussed and prioritized drilling targets for the North Pacific Transect (Leg 145) at their recent meeting (February 28-March 2; Chapel Hill, N.C.). If Hess Deep is not drilled during Leg 140, it will be drilled during Leg 147.

Leg 137 is the cruise currently underway; *JOIDES Resolution* is now in transit from Honolulu to the Costa Rica Rift region to begin fishing/milling operations at Hole 504B. Leg 136 recently ended in Honolulu (March 20), after successfully establishing a cased reentry hole at proposed site OSN-1 (Hole 843B) for Ocean Seismic Network pilot studies. A prototype "cork" was successfully tested in the reentry cone.

None of the recent ODP cruises for which SSP/PPSP had safety concerns (i.e., Leg 133/NE Australia and Leg 135/Lau Basin) experienced any hydrocarbon problems. In conjunction with PPSP, ODP is developing extensive safety procedures and precautions for dealing with potential H_2S and high-temperature safety problems on Leg 139 (Sedimented Ridges I).

Leg 133 (NE Australia) proved to be a record-breaking cruise in many regards; numbers of sites, holes and cores; total penetration and recovery .

2. Scientific staffing update. The Soviet Union has signed the MOU to join ODP, and their membership will be effective in May, 1991. Scientific staffing is complete through Leg 139, except for the addition of 2 Soviet scientists on each of Legs 138 and 139. Staffing of the shipboard scientific parties for Legs 140-142 is currently underway.

Co-Chief Scientists for future ODP cruises are as follows: Leg 140--Henry Dick (Woods Hole Oceanographic Institution) and Jorg Erzinger (Univ. Giessen, F.R.G.); Leg 141--Steve Lewis (U.S. Geological Survey) and Jan Behrmann (Univ. Giessen, F.R.G.); Leg 142--Rodey Batiza (Univ. Hawaii). Co-Chiefs for Legs 143-146 will be invited following the April PCOM meeting.

3. Publications update. ODP Publications published a record 20 volumes (16722 pages!) during FY90, as part of their ongoing efforts to speed up publications of the *Initial Reports* and *Scientific Results* volumes . Publication schedules have now been reduced to ~12 months post-cruise for the *Initial Reports* volumes, and ~36 months post-cruise for the *Scientific Results* volumes. Fourteen volumes are currently scheduled for publication during this fiscal year. There has been a trend toward larger *Initial Reports* volumes since ODP began, related to increased core recovery and increasing use of Macintosh graphic capabilities onboard ship; this trend results in increased publications costs.

4. Budget Committee update. BCOM met in Washington, D.C. on March 14-16 to discuss ODP budgets for FY92. NSF gave JOI a target budget level of $41.4 M, and BCOM made recommendations to ODP/TAMU, LDGO/BRG, JOI, and JOIDES to successfully meet this level. In addition, BCOM is recommending that NSF identify an additional ~$1M to support technological developments critical for furthering JOIDES and COSOD scientific goals.

5. EOS to publish cruise results. Beginning with Leg 136 (OSN-1), EOS will routinely publish papers on ODP cruise results. This is in addition to articles that are currently published in Geotimes and Nature. EOS will also publish calls for S- proposals when FY drilling programs are set.

4. PANCHM (Kidd)

The JOIDES Panel Chairmen met in Hawaii prior to the end of year PCOM meeting and then took part in the PCOM meeting itself. SSP Chairman Kidd had chaired PANCHM and reported on its concerns and recommendations to PCOM. For a number of these items Kidd was able to provide updates because of subsequent action by PCOM.

Panel Chairmen were concerned with:

- improving the advertising of upcoming ODP activities to the general scientific community (see EOS item above);
- secretarial and other support for Chairmen (Kidd reported that in the UK NERC had agreed to fund a quarter-time secretary to support SSP activity);
- achieving greater flexibility for meetings between subgroups of panels;
- and the perception that PCOM frequently misses and fails to act on important recommendations in panel minutes.

General PANCHM issues included:

- improving feedback to proponents (see PRF item above and SSP's own discussions on Watchdog contacts with proponents below);
- add-on/supplemental science proposals (PANCM discussion had been led by the needs of SSP and PPSP and the procedures eventually adopted by PCOM came largely from the recommendations of these Chairmen);
- recommendations for deep drilling test sites; and
- panel membership procedures (PCOM modified its policy on proposals for panel membership to accommodate perceived difficulties in invitations to industry scientists).

5. PPSP (Garrison/Francis)

The PPSP met on Sept. 17-18, 1990 at the Pacific Geoscience Center at Sidney, B.C. Legs 136 (OSN-1 hole), 138 (Eastern Equatorial Pacific) and the Sedimented Ridges sites in the Middle Valley of the Juan de Fuca Ridge and in the Escanaba Trough were reviewed.

A portion of the Sedimented Ridge sites will be drilled as Leg 139. The Middle Valley sites MV1 through MV8 were approved with the understanding that the drilling order should be MV6, then MV1 or MV2 prior to drilling MV8, a hole expected to encounter high temperatures. Escanaba Trough sites ET-1 and ET-2, the latter to be drilled first were approved, but with the constraint that if temperatures greater then 350° C were encountered, drilling should be stopped.

The OSN-1 site and the entire set of EEQ sites were approved.

The possibility of encountering H_2 at toxic levels in drilling the Juan de Fuca and Escanaba sites was discussed at some length. PPSP asked the Science Operator to develop a contingency plan to deal with this, as well as with H_2S released by sampling cores. As the COGLA imposes an extensive set of safety requirements dealing with H_2S all exploratory drilling, PPSP asked that they be informed of how the Science Operator

responded to these requirements, but otherwise left the problem on hold, with the understanding that it was being handled effectively.

6. DATA BANK (Brenner)

BCOM approved a funding level of ~241K for the Data Bank. This is $2000 less than requested, but is not expected to cause any hardships. Brenner was uncertain what the impact of the "add-on" science program would be on the Data Bank's level of activity, but expressed the opinion (and hope) that it would not be too dramatic.

Brenner has redesigned and computerized the safety check sheets for PPSP. The changes were approved by present PPSP Chairman Ball and also sent to past Chairmen Garrison and Claypool for comments. The new sheets will be used for the first time at the May meeting of PPSP.

The Data Bank is in the process of turning its "card catalog" (cards describing data submitted to the Bank in support of DSDP/ODP drilling) into a digital document. Most likely this will be done as a Hypercard stack. Though the card catalog is primarily for internal Data Bank use, Brenner asked if SSP felt that the stack should be advertised and made available to the JOIDES community. He cautioned that: 1) the cards contain descriptions of data rather than actual data; 2) much of the data described on the cards is proprietary and not freely available, even to members of the JOIDES community; and 3) the cards describe only a portion of the actual data holdings at the Site Survey Data Bank (that is, they describe only the data that was submitted explicitly for DSDP/ODP purposes, and they ignore the huge volume of background reconnaissance data - which in fact has fewer restrictions on its release - that the Data Bank has on file).

SSP Consensus 3: The Data Bank should proceed with the program of digitizing its card catalog, and the possible advertisement and distribution of the results to the general JOIDES community will be discussed again when the task is completed.

PPSP will next meet in May at ODP/TAMU to review packages for Legs 140, 141, and 142. SSP members noted the possibility that one of these packages could include Hess Deep!

7. SEA LEVEL WORKING GROUP (Watkins)

The Sea Level Working Group, chaired by Paul Crevello, Marathon Oil Co., is charged with formulating a global approach to investigate the sea-level signal in strata from a diversity of depositional and geographic settings. Ultimately SLWG will develop guidelines, approaches and recommendations for use by ODP in investigations of global sea-level history as evidenced in the sedimentary record.

The first meeting of SLWG was devoted to a 'state-of-the-knowledge' review of the global sea-level issue, discussion of principal objectives, and establishment of an agenda for SLWG. SLWG developed an outline that will be the basis of a position paper to be presented to PCOM. SLWG also plans to identify and prioritize high-potential sites/transects/legs. Current proposals under consideration include the New Jersey and West Florida margin proposals. SSP members agreed that there was no basis yet for treating the sea level oriented proposals as anything other than individual proposals.

Some, perhaps many, of the sites will be located on continental shelves and slopes and will require detailed, sometimes shallower water, site surveys in order to meet objectives and satisfy PPSP requirements.

SLWG plans to conduct much of its work by fax or mail. A second meeting is proposed for November 1991.

8 DPG's

NORTH ATLANTIC RIFTED MARGINS (Blum)

The North Atlantic Rifted Margins Detailed Planning Group (NARM-DPG) met for the first time on March 25-27, 1991, at Woods Hole Oceanographic Institution. The DPG's mandate is to construct a prioritized plan for drilling volcanic and non-volcanic rifted margins based on a set of 7 highly ranked North Atlantic proposals (310, 311, 328, 334-Rev, 358, 363, 365-Rev), the COSOD reports, the Long Range Plan and other white papers. Rationale, objectives and strategies for drilling these margins are summarized in a preliminary DPG-Report draft at presently being prepared. All the proposed sites of the above mentioned proposals are plotted in the appendix map #1. (SSP Appendix 6).

The DPG defined two conjugate margin transects as first priority targets: 1) North Newfoundland Basin - Iberia Abyssal Plain (NNF-IAP) non-volcanic transect, and 2) southeast Greenland - Faeroe-Hatton Bank (SEG-FHB) volcanic transect. Individual sites have not been selected yet, and the originally proposed sites will be more or less modified based on the number of holes that can be drilled in the timeframe approved by PCOM. The sites from which the final drilling sites will be selected are highlighted in Appendix 6 (map #2).

The non-volcanic transect is identical to one of the two conjugate margins transects in proposal 365-Rev by Srivastava et al (Appendix 6, log sheet). Three of the originally proposed 10 holes on the NNB side, and three of the originally proposed 4-6 holes on the IAP side are considered the minimum for studying these margins.

As for the volcanic conjugate margins, only the SE Greenland transect, proposal 310 of Morton et al., (log sheet, Appendix 6) is likely to be drilled, and tied to DSDP Sites 552-555 and geophysical data on the Faeroe-Hatton transect. The strategy of drilling many shallow holes for systematic stratigraphic sampling of the seaward dipping reflector sequence was replaced by the strategy to drill only four, but these are planned to be approximately 500 m deep basement sections in order to recover more proximal parts of the basalt flows. One site on the Vøring margin from from proposal 358 of Eldholm et al., approximately between sites VM3 and VM4), was added to the drilling plan with the aim of getting a longitudinal component for variations in geochemistry and source material along the eastern volcanic rifted margin.

NORTH ATLANTIC ARCTIC GATEWAYS (Larsen)

A preliminary draft of the report of DWG "North Atlantic-Arctic Gateways (NAA DPG) Feb/Mar 1991 was reviewed. The DWG examined three proposals:

- 305 Arctic ocean drilling (Mudie).
- 320 Paleoceanography and paleoclimatology, Nordic Seas (Jansen)
- 336 Arctic to North Atlantic gateways (Thiede)

and provides a prioritized plan for a drilling program consisting of 15 sites (two legs).

The Norwegian-Greenland Sea links the cold Arctic Ocean with the warm-temperate North Atlantic Ocean via the northern gateway. The Fram Strait and the southern gateway across the Scotland-Iceland-Greenland Ridge in the Denmark Strait, the Faroe-Shetland Channel as well as across the Iceland-Faroe section of the ridge. The purpose of the programme is to describe the temporal and spatial variation in the important current systems and in sea ice distribution in the northernmost Atlantic and the Arctic Ocean and the development of the exchange through the gateways. In addition ,the history of mountain glaciers and ice sheets around the Nordic Seas is an objective.

The Arctic ocean sites (proposal 305) are mostly inaccessible with *JOIDES Resolution*. One site on the northern slope of the Yarmak Plateau may be accessible in favorable ice-years. The two other proposals are fairly similar. The basic plan is for:

sites on the Yermak Plateau and just to the south of the Fram Strait to track the development of the northern gateway;

a north-south transect along the East Greenland continental slope in order to track the history of the East Greenland Current and the glacial influence from Greenland; and an east-west transect from the Leg 104 holes on the Voring Plateau to Scoresby Sound in order to improve understanding of the evolution in surface water masses and of the downwelling of deep water. In addition to the above pattern of sites (a "paleo-environmental cross"), a few sites on both sides of the Faroe-Iceland ridge are included. The programme resulting from the DWG is a two leg program consisting of 15 sites, now a mix of the sites originally proposed. These are:

Northern Gateway Region:
- YERM 1, 4 and 5 (from 320), ARC 2A (from 305)
- FRAM 1B and 2 (from 320), identical to FST - 1
- FST - 2 (from 336)

Greenland Margin
- EGM 2 and 4 (from 336)
- GREEN 2 (from 320)

Greenland - Norway Transect.
- ICEP 1-4 (from 320)

Southern Gateway.
- DENS 1 (from 320)
- NIFR (from 336)
- SIFR (new).

ATOLLS & GUYOTS (Watkins)

The Atolls and Guyots DPG was charged with planning a two-leg drilling program that included all of the high priority targets of proposals 203-rev and additional targets of 203-rev and 202-rev to produce a balanced, maximized return from the range of scientific objectives in these proposals.

Principal objectives of the A & G proposals include investigation of Cretaceous sea-level changes, causes of drowning of carbonate platforms, investigation of regional uplift in the central and western Pacific, and plate motions. The investigation of sea-level changes are especially important to the establishment of global synchroneity of sea-level changes during the Cretaceous.

The area of investigation (see map, SSP Appendix 7) includes three families of sea mounts, viz., seamounts, mainly in the Wake Group, eroded with little or no carbonate development; guyots in the Japanese group capped by barrier reefs with thin lagoonal sediments; and drowned atolls of the Wake Group and Mid-Pacific Mountains. The latter were uplifted and karsted immediately prior to drowning.

The A&G DPG reviewed the scientific objectives of the two proposals, identified redundant targets and, subject to a port call in Majuro which will save 10-12 days transit, was able to arrange targets in a manner that met all objectives.

The DPG expressed concern over recovery and has requested that an effort be made to provide DCS capability during the drilling. Sites are located mainly on fans and in back reef areas. Fan sites will provide information on the deep water response to sea-level signals, whereas back reef sites will provide data from near surface signals.

Day Two began at ODP/TAMU at 0830 and Chairman welcomed Keith Louden and Lou Garrison.

3. SCHEDULED LEGS - FY '92

1. EAST PACIFIC RISE (Lewis)

New and/or recent data for both the 09° 30' N site and the 12° N site include near-bottom source/receiver refraction experiments performed by M. Purdy and G. Fryer. Short 1 - 1.5 km refraction lines were run in a wide variety of tectonic settings over both the northern and southern EPR sites. Preliminary interpretations of the refraction data suggest that there is a systematic variation in the thickness of low velocity "rubble" zone across the EPR. **SSP members commented that, should the apparent success in imaging the rubble zone be confirmed by the first drilling at EPR, we would need to consider incorporating this technique in our guidelines for survey data at bare-rock sites.**

In addition, *ALVIN* submersible observations of the 09° 30' N region of the EPR will take place in the Spring of 1991. The combination of new near-bottom refraction data and submersible observations with existing data should provide an adequate basis for drillsite selection.

2. SEDIMENTED RIDGES (Louden/Meyer)

No changes are currently proposed to drillsites for Leg 139 Sedimented Ridges 1. SSP recommended collection of additional deep-towed seismics and heat flow data for Sedimented Ridges 2 objectives but now that this drilling is scheduled after ODP's excursion into the North Atlantic, there is plenty of time to gather these data. It was noted that proponent Earl Davis has not yet lodged the latest Middle Valley data set with the Data Bank.

3. CHILE TRIPLE JUNCTION (Lewis)

Chile margin drilling, scheduled for November 1991- January 1992, will comprise one leg (141), concentrated on the collision zone of the triple junction region. One three-hole dip transect (sites SC-1, -2, and -3) are located along Conrad MCS Line 745, with additional sites located on MCS Line 750 (SC-4), Line 751 (SC-5), and Line 762 (SC-6). All sites lie within the region mapped by SEABEAM and GLORIA, and all sites are covered by other underway geophysical data. The seismic data along which sites SC-1 through SC-6 are located have been post-stack migrated, with pre-stack depth migration completed on some lines and being completed on the other lines. Watergun SCS data are being used to calculate the regional thermal gradient distribution based on the depth to the BSR reflector. Imaging of the BSR reflector is clear on most seismic lines, and a drilling strategy is being formulated with input from SGPP to incorporate clathrate/gas hydrate scientific objectives into the overall Chile Margin drilling program. Safety review of these sites is expected in May, 1991. PPSP is likely to require a specific order of drilling the sites to gradually build up knowledge on drilling the BSR. Updated SSP matrices for the Chile Margin drillsites have been finalised.

4. ATOLLS & GUYOTS (Kidd)

The data set from the USSAC-funded Marshall Islands cruise on *Moana Wave* has been lodged with the Data Bank. As far as SSP is aware there has been collection of new data related to the Cretaceous guyots component of the A & G program since the Panel voiced concerns over the quality of seismic reflection data over sites planned for basement objectives. Proponent Winterer was requested, following his presentation at the April '90 Menlo Park meeting of SSP, to pursue ways of either collecting better seismic profiles or obtaining sonobuoy data because imaging of basement was very unclear on the profiles presented. The A&G DPG has apparently retained these particular sites in its two leg program.

SSP Consensus 4: SSP reiterates the concerns it has expressed over the quality of seismic data over sites in the Cretaceous Guyots component of the Atolls and Guyots program that have basement objectives. The Panel requests that the DPG examine whether these objectives might be met at other guyots where the seismic data is of better quality.

5. NORTH PACIFIC NEOGENE (Larsen)

Site PM-1 (Patton Murray Seamount) was approved by SSP at the Hannover meeting.

Sites NW1A, NW3A and NW4A were also approved at the Hannover meeting, however SSP recommended that other opportunities to collect better data should be investigated and pursued.

OHP recommended that Site NW3A be deleted from the scheduled leg.

SSP received a map with new positions for the DS1, DS2, and DS3 from Lloyd Keigwin. The drilling position was not marked on the enclosed photos of the seismic lines, so the exact positions are unclear. Further we were told that OHP propose an addition of one site, DS4, but the position of this is not known to SSP.Because of the shift of positions of the sites from the ones reported in SSP minutes from July '90 meeting in Lamont we require a new designation for the sites.

DS-1D - the new site, was selected on two crossing SCS lines from the *Thomas Washington* data. The layers outcrop in erosional channels about 5 nm from the site so the structure is not closed. Basement is poorly imaged and the deepest parts of the sequences appear missing at the site. **The Panel recommended a shift of the new site DS-1D along its SCS line to avoid the possible omissions in the deeper parts of its sedimentary sequence**

DS-2B - This new site is positioned on a SCS line but with additional SCS lines within a distance of 1-5 nm. The data are sufficient from an SSP point of view.

DS-4 is called "DS-2B - 3300 m" in the letter from Keigwin but is not the one called DS-2B in the SSP minutes from July 12-13 '90. DS-4 is positioned on crossing SCS lines from the Washington data set. The data are sufficient for SSP.

SSP Consensus 5: Provided that the additional Detroit seamount site is selected within the 2400-3000 m depth interval in the seismic data grid of the Washington and Farnella seismic lines, the critical data for the North Pacific Transect are in hand. The seismic reflection data are poor for a number of sites, but are still judged as sufficient for the drilling objectives as long as high-quality seismics are run by the drillship on arrival and departure of the sites.

6. HESS DEEP (Kidd)

SSP returned to discussion of PCOM's decisions on Hess Deep. There was strong condemnation of its actions in the light of JOIDES' general philosophy that ODP is beyond the exploratory stage and now aims to test well-constrained models with drilling. It was reiterated that part of SSP's function is to ensure that site survey data is sufficient to place any drilling in a regional context.Our view of the absence of quality seismic data at Hess Deep was that this was certainly not possible there. Louden and von Herzen pointed out that SSP members were wasting their own time and JOIDES funding if PCOM were prepared to ignore the panel's findings in such a blatant way. Kidd, who attended PCOM as Panel Chair, stated that SSP's mandate was to advise PCOM and it was then up to PCOM whether to act on its recommendations or not. In this case, PCOM had considered that the single site leg now inserted in the program did not require the regional control that could be provided by MCS surveys. The concerns of the SSP members were such that PCOM liason Watkins arranged for a telephone call between Kidd and PCOM Chairman Austin.

Austin made the following points to be relayed to the Panel:

"PCOM does listen to the recommendations of SSP and the other Panels";

PCOM needed to insert a leg after it became clear that DCS development was likely to be slower than it had previously envisaged. Hess Deep was the top LITHP target after EPR and top TECP target after CTJ.

The inserted Hess Deep leg is now specifically for lower oceanic crust objectives and Moho petrology at a single site;

PCOM members considered the MCS surveys to be necessary only for later more regional objectives and any SCS to be largely inadequate. The proposal for MCS surveys has not been funded in the present NSF program but the Dorman et al deep-towed work would be done.

Proponent Henry Dick has obtained USSAC funds to travel to French and other institutions to gather together a survey package for drilling on either Leg 140 or Leg 141 Austin offered to sanction a meeting for Dick to present the resulting data package to a sub-group of the Panel between now and the next SSP meeting, or to have Dick attend as a guest at the next SSP meeting.

SSP returned to its discussion with no great feeling that its concerns had been allayed. Members were most concerned over the impossibly short leadtime, should Hess Deep be scheduled for Leg 140 (Sept/Nov '91), for review the data related to the single site. Some noted our LDGO recommendation that drilling should not be scheduled before late 1992, which fits better the option to drill Hess Deep on Leg 147. **There seemed no point in arranging for a sub-group to meet to view data for Leg 140 drilling; the proponent would be better employed getting together with Carl Brenner to prepare a package for direct presentation to PPSP.** Arrangements could be made for SSP to assess the survey package if the leg is scheduled as Leg 147. (SSP members wished ODP/TAMU every success in cleaning out Hole 504B!)

SSP Consensus 6: SSP reiterates its concerns that additional geophysical data is needed at Hess Deep, primarily detailed MCS data to characterise regional crustal structure and deep-towed seismics and sidescan to image possible rubble. The Panel notes that, even for the currently-envisaged single-site petrologic objectives, no survey package is yet available for assessment and reiterates its recommendation that this exciting science be drilled late in the FY'92 program.

7. CASCADIA (Louden)

The panel reviewed briefly the final sites selected by the Cascadia Margin DPG in Aug 1990 and subsequently adopted by PCOM in Hawaii. The Oregon sites are all located along recent multi-channel profiles at or close to cross lines. These profiles, as previously reviewed by SSP, reveal clear images of the various faults which are the primary targets of these drill holes. Surface evidence for these faults is indicated by previous deep-towed side-scan images and submersible dives. The Vancouver sites are also located with multi-channel seismic lines. With the exception of site VI-5, these are all on or close to cross lines and also include high resolution images from deep-towed side-scan profiles. The primary objective of Site VI-5 is to drill through a complete hydrate section including a clearly imaged BSR. The issue of this BSR drilling is being addressed by the working

group of PPSP. We note that Site VI-5 lies on a basement high and is not close to a crossing multi-channel seismic line. The exact location of this site requires further justification and supporting documentation, particularly from a grid of high resolution (watergun single channel) seismic profiles at the proposed site location. Data in support of this site location and results of the working group on hydrate drilling should be provided at the next SSP meeting. The remaining sites satisfy SSP requirements. We note, however, numerous errors in the table of site locations from the DPG report which need to be corrected.

4. STATUS OF NORTH ATLANTIC PROGRAMS

1. NORTH ATLANTIC RIFTED MARGINS DPG PROGRAM (Lewis)

The NARM-DPG preliminary report defines drilling objectives on North Atlantic rifted margins to be "the description and understanding of upper crustal to upper mantle igneous and deformation processes and deeper mantle processes and dynamics associated with and causing continental break-up". The DPG has combined specific sites and objectives from 7 individual proposals into a coherent drilling plan based on the "conjugate margin transect" concept. Four transects, requiring approximately 4-6 drilling legs, were identified:

1) Northeast Greenland - Voring Plateau (proposal #358 and sites 642-644,
2) Southeast Greenland - Faeroes/Hatton Bank (proposal #310 and sites 552-555,
3) Northern Flemish Cap - Goban Spur (proposal #365 Rev.), Newfoundland Basin - Iberia Abyssal Plain (proposal #365 Rev. and sites 637-641.

These transects include both volcanic and non-volcanic margin targets.

Data in support of proposed drillsites include a wide variety of single-ship MCS data, some two-ship constant offset and expanding spread profiles, previous drilling results, side-scan sonar data, submersible observations, and coring samples. However, some proposed sites are not presently located at seismic line intersections, and other site survey requirements are not explicitly satisfied. Additional site survey data may be required for some sites. Specific drilling objectives and site locations will continue to be refined during a possible additional meeting of the NARM-DPG, to take place during the summer of 1991.

2. NORTH ATLANTIC-ARCTIC GATEWAYS DPG PROGRAM (Larsen)

1. Northernmost Atlantic Paleoceanography: Arctic Gateway proposals:

-305 Arctic Ocean - the basic problem here is ice so the area is hardly accessible for the drillship. Most of the proposal should probably be included in the NAD project.

-ARC 1 A, B, C, on Alpha ridge. No specific sites so SSP evaluation is not possible. In general the seismic data is hardly adequate - but we need to assess better copies of the material.

-ARC 2A and 2B. Yermac Plateau. Site 2A is included in the NNA-DPG programme. High resolution seismic profiles along and approximately perpendicular to the slope. The MCS lines need migration in order to clarify the top of basement. Coring data for reentry is desirable. Proponents should consider whether to split the objectives into two sites one for basement and one for the sedimentary sequence. For Site 2B a much better regional data set exists - see proposals 320 and 336.

-ARC3 Nansen G. Ridge - Better definition of the basement target will be required.
-ARC 4 - No data to review

2) The YERMAC and FRAM Strait sites. The data seem in general to be sufficient. However, high frequency processing for better definition of the sequence to be drilled will be a requirement.

3) The East Greenland margin sites. EGM1-4 - In general the data is adequate but seismic sections along the shelf slope and roughly perpendicular to the slope will be desirable. Most of the seismic sections illustrated in the proposal are very low frequency and consequently there is low resolution for the sequences to be drilled. Processing will be required for better resolution of the upper sedimentary sequence at many of the sites. The occurrence of coarse ice-rafted debris should be evaluated using existing sample information and coring at the sites.

Green 1 and Green 2 Sites are to be determined after upcoming site surveys.

4) The Greenland - Norway Transect ICEP high resolution seismic lines roughly N-S and E-W and with good imaging of the basement are needed. Magnetic measurements across the sites are also required to determine magnetic anomalies.

5) The Southern Gateway.

-NIFR-1 (North of the ridge) Here data is probably sufficient to meet SSP's guidelines.

-NIFR-1 and DANS-1 - No data available

SSP Consensus 7 : None of the seismic data for the North Atlantic- Arctic Gateways Program are in the ODP data bank and proponents are urged to begin sending the pertinent material. In general, seismic data illustrated in the proposals are very low frequency so details of importance for the planning and interpretation are not visible. Higher frequency processing or collection of high resolution SCS will be required. As processes objectives in many sites are both for transport along-slope as well as transport down-slope, crossing seismic lines will be necessary. Data on frequency and size of ice-rafted debris should be compiled in order to select proper drilling methods.

3. OTHER NORTH ATLANTIC PROGRAMS

1. 361Rev Hydrothermal System, TAG Area (von Herzen)

This proposal for drilling an active hydrothermal system near a slow spreading ridge axis has been revised only very recently; it was not available to the Panel and not discussed in any detail. Some survey data are available from several cruises to the site, including one with submersible (Alvin) observations/sampling. **Watchdog responsibilities are now assigned to K. Louden, after R. von Herzen has become a minor proponent on the drilling proposal.**

2. 369 Deep Mantle Section, MARK Area (Hirata)

For the Kane Fracture Zone, we already have the SeaBeam and SeaMARC data from the *Conrad* and *Hudson* surveys for Legs 106/109, including the processed sub-bottom profiles and bottom photos. There are also refraction data, magmatic survey data, gravity data, and submersible studies with the *Alvin* and the *Nautile*. So, we have good data in this area. We do need to obtain the submersible dive results for assessment.

3. 348 Paleogene/Neogene Stratigraphy, New Jersey Margin (Kastens)

This proposal seeks to evaluate the timing and amplitude of eustatic sea level changes during the lower and middle Miocene by drilling a transect of holes across the continental slope and upper continental margin offshore New Jersey, eastern U.S.A. Taken together with analogous passive margin transects in different age sediments on different rift-age margins, this leg would test the "Vail hypothesis" which ties seismic stratigraphy to eustatic sea level changes, and would help to constrain the mechanism of climatically-driven sea level change.

The existing proposal is a preliminary proposal without specific sites. The preliminary proposal was based on a respectable network of U.S.G.S. and industry seismic lines, exploratory industry drilling, plus DSDP drilling during legs 93 and 95. The strategy is to drill onshore-offshore transects into representative sedimentary "sequences," where a "sequence" is an unconformity-bounded lens of sediment hypothesized to correspond to a sea level cycle. Both the ages of the sequence boundaries and the onshore-offshore facies relationships within a given sequence are of interest. An effort will be made to site holes such that each hole can penetrate vertically through several sequences. Since the preliminary proposal was written, a dedicated seismic cruise (R/V Ewing EW9009) has collected 2400km of multichannel seismic lines on the continental shelf and 1400km of single channel seismics lines on the continental slope in the proposed drilling area. In addition, the detailed bathymetry of the area has been mapped with SeaBeam and Hydrosweep multi-narrow beam echo sounders, and a series of *Alvin* submersible dives has sampled the stratigraphy exposed along the deeply-incised slope canyons. The proponents anticipate submitting a mature drilling proposal, incorporating the new data and pinpointing specific drillsites, in June of 1991. They do not anticipate any significant changes in experimental design in the revised proposal.

This project appears in good shape with respect to Site Survey Panel requirements. The seismic network is extensive, and the new EW9009 data appear to be of excellent quality. All of the data designated as "vital" for passive margin drilling on the SSP matrix (MCS & velocity determination, grid of intersecting seismic lines, and 3.5 or 12kHz) is in hand. No refraction data (designated "desirable" on the matrix) are available, but the MCS velocity determinations seem adequate for the relatively shallow holes proposed. The proponents have not yet compiled heat flow data ("desirable" for passive margin drilling) for the area. Hydrocarbon shows have been found in nearby exploratory industry boreholes, so the proponents will need to do their homework carefully to satisfy the PPSP; however, the anticipated quality and quantity of the seismic data are such that it should be possible to select and document safe drillsites.

SSP Consensus 8 : **One operational concern that needs prompt attention from the TAMU engineering staff, in the light of proposals for sea-level objectives on North Atlantic margins, is shallow-water drilling. The New Jersey proposal, for example, includes sites (albeit lowest priority) in water as shallow as 20m, and is vitally dependent on successful drilling in water as shallow as 60m.**

4. 313 Major Oceanographic Pathway, Equatorial Atlantic (Pautot)

The quality of seismic lines shown in this proposal is not appropriate for the deep drilling : >1km penetrations are proposed on poor quality SCS lines. Additional seismic data will be expected for any site survey package and with more precise site locations.

5. 333 Evolution of Pull-Apart Basin, Cayman Trough (Lewis)

Six proposed drillsites address problems of the tectonics of pull-apart basin structural geometries and subsidence patterns (CAY-1 and CAY-2); the mode and timing of the inception of spreading of the Cayman Trough spreading center (CAY-3, CAY-4, and CAY-6); and verification of magnetic anomaly identifications and sampling of oceanic crustal layer 3 (CAY-5). In addition, the state of stress will be measured in all sites in order to determine whether or not the Cayman Trough transform system is characterized by a broad (50-100 km wide) zone of compressive stress, as is the case for the San Andreas and Philippine faults.

Data in support of site selection includes both MCS and SCS seismics, GLORIA and SeaMarc II acoustic imagery, submersible sampling, and underway geophysical data. Most sites are presently located at the intersections of seismic lines. CAY-5 is a bare-rock site, and will require the deployment of a guidebase. The level of data available is such that it was possible to prepare at the meeting site survey matrices for sites CAY-1 through CAY-6 .

The watchdog role for this proposal now passes from Lewis to Kidd.

6. 346Rev Equatorial Atlantic Transform Margin (Pautot)

Seabeam and quality SCS watergun data are the basis of this proposal for drilling. The set of data presented in the proposal and supporting data announced as available seems to be appropriate for the proposed drilling. MCS lines and refraction analysis on the proposed sites should be deposited in the Data Bank since penetrations of 1.0 to 1.5km are suggested. All other relevant information including SCS, magnetics, gravity, submersible informations should also be filed in support of this proposal.

7. 347 Late Cenozoic Paleoceanography, South Equatorial Atlantic (Farre)

The purpose of this proposal is to reconstruct the dynamics of trans-equatorial heat transport in relation to NADW formation; intermediate currents and productivity variations throughout the Neogene.

Three drilling transects are proposed: 6-1/2 to 9-1/2 weeks estimated time - Double or triple APC holes:

S. Equatorial East Transect: 4 sites - 3-4.5 km water depth - Low Frequency seismics and "Parasound" echosounder records available (~40m penetration);

S. Equatorial West Transect: 4 sites - 3-4.5 km water depth-"Parasound" profiler data available;

SE of Sao Paulo Transect - 5 sites - 3-5 km water depth - plans are to collect "Parasound" profiler data in Spring '91.

8. 376 Layer 2/3 and Crust/Mantle Boundaries, Vema Fracture Zone (Hirata)

According to the track chart provided by the Data Bank, a large amount of data is already filed on the Vema Fracture Zone area. We need to see the SeaBeam data that the proponents cite, that are not in the Data Bank. Also the data collected by the *Nautile* dive which includes bottom photos should become part of the site-specific data package. **The watchdog has been now been changed from Hirata to von Herzen.**

9. 378Rev Growth and Fluid Evolution, Barbados Accretionary Wedge (Moore)

This proposal is for a 4-leg, 26-site drilling program aimed at understanding 1) fluid flow through an accretionary prism, 2) processes occurring at the deformation front, and 3) evolution and growth of an accretionary wedge. Three areas would be drilled: the lower slope of the north Barbados Ridge (NBR), the lower slope of the south Barbados Ridge (SBR) and the upper slope of the SBR. NBR drilling would be in the Leg 78A/110 transect and would deepen three existing holes to basement and add additional sites higher up the slope. The lower SBR holes would be aimed at understanding subduction zone processes in an area where thick terrigenous sediments are being deformed. The upper SBR holes would be drilled to understand deformation at the outer-arc ridge - forearc basin boundary.

Site survey data in the lower slope areas consist of SeaBeam maps, fairly old, low-fold, low resolution French MCS lines, four LDGO/British wide aperture MCS lines, and French near-bottom side-scan and 3.5 kHz data. A cruise to obtain higher resolution MCS lines plus OBS velocity data will be carried out by Westbrook in 1992. 3-D seismic acquisition is being proposed for the NBR lower slope by T. Shipley and G. Moore thus the watchdog role on this proposal now shifts from Moore to Kidd.

10. 323Rev Alboran Basin and Atlantic-Mediterranean Gateway (Kastens)

This proposal combines two conceptually different goals which are geographically contiguous. The first goal is tectonic: to understand the rifting and subsidence history of the Alboran Sea (east of the Straits of Gibraltar, between Spain and Morocco) and its relationship to compressional tectonics in the surrounding orogens. The second goal is paleoceanographic: to elucidate the Neogene history of water exchange between the Atlantic and the Mediterranean, with a particular emphasis on the amplification of climatic signals (e.g. sealevel oscillations) in a marginal sea. The paleoceanographic goal requires sites both east and west of the Straits of Gibraltar; however the eastern sites can be the same as those required for Alboran Sea tectonic objectives. The original proposal (dated March 1989) envisioned one drilling leg for both goals. The current proposal (dated January 1991) requests two legs, one in the Alboran Sea and one in the Gulf of Cadiz (west of the Straits of Gibraltar).

The available data set in the Alboran Sea, as documented in the proposal, seems quite extensive. There is a dense network of industry MCS lines on the Spanish margin, and a less dense reconnaissance network covering the rest of the Alboran Sea. It is difficult to evaluate the data quality, but judging from the xerox-reduced profiles in the proposal the quality appears to be adequate for preparation of site survey packages. The proposal discusses five "sectors" for potential drilling. In the three highest priority sectors, specific sites have been documented and pinpointed at intersecting MCS lines of apparently good quality. In the two lowest priority sectors (which would only be drilled if the Alboran Sea gets an entire leg), existing data were not considered adequate to specify sites. A Spanish-German MCS cruise planned for 1991 is expected to complete the requisite seismic data set for sectors 4 and 5. Well logs and cuttings are available for four industry boreholes on the Spanish margin; a single industry borehole on the Moroccan margin exists, but the proponents have not yet been able to acquire data from these wells. Single channel seismics, 3.5kHz, and core samples are said to be abundant. Seismic refraction, gravity and magnetics data are mentioned in the text, but the extent of these data are not documented. GLORIA, Deep Tow (SAR) side-looking sonar, SeaBeam and heat flow measurements are scheduled or proposed for 1991-1992.

The Gulf of Cadiz data base is not as well documented in the proposal. A network of MCS commercial seismic lines is mentioned in the text, but neither a track chart nor sample profiles are provided. A reasonably dense network of single channel seismics seems to have been used to select the three primary and three alternate sites in the Gulf of Cadiz. The illustrated SCS profiles appear to be of high quality. Numerous gravity cores and "almost complete" GLORIA coverage are also available. Apparently the OHP asked the proponents to add a site southwest of the Gibraltar Sill; no documentation is provided for this extra site.

In summary, this project has a good start towards satisfying SSP requirements. A critical turning point for this project will be the decision for one leg or two legs. If two legs are allocated, then considerably more data must be provided to evaluate Sectors 4 and 5 in the Alboran Sea, and the site SW of the Straits of Gibraltar. In either case, additional information will be required for the Gulf of Cadiz sites. No data at all has been forwarded to the ODP Data Bank for either the Gulf of Cadiz or the Alboran Sea.

11. 343 Window of the Cretaceous Volcanic Formation, Carribean Zone (Farre)

The purpose of this proposal is to better understand the processes, history, tectonics and origin of thickened oceanic crust that resulted from widespread Cretaceous mid-plate volcanism in the Venezuelan & Columbian Basins. Other topics include evolution of the Beta Ridge (that separates the Columbian from the Venezuela Basin) and the Pecos Fault Zone (the boundary between the Columbian Basin and the Beta Ridge).

Three sites are proposed:

1) Foot of a "cliff" marking the edge of thickened oceanic crust: to sample normal oceanic crust. The proposal is for 1100 meters of drilling to the top of oceanic crust, then (?) m of basement penetration.

2. Sample the "cliff" edge to recover a section of thickened oceanic crust. (~800 m to 1km of volcanic section) then (?) m of basement penetration.

3. Rough basement penetration at top of Pecos Fault Zone (900 meters of sediment then (?) of basement penetration).

The proponents note that the existing seismic data are not sufficient to select the sites. If this proposal was highly rated they recognise that they will need to plan for an MCS survey.

12. 345 and 345 Add. Sea Level and Paleoclimate, West Florida Margin (Moore)

The objective of this proposal is to provide documentation of the timing of sea level change and to "bracket" amplitudes of Cenozoic sea levels. The west Florida margin is a carbonate ramp with good lateral continuity between shallow and deep-water regions and with well-developed seismic stratigraphic sequences. The proposed sites will provide the basis of multi-disciplinary paleoclimate studies addressing 1) the timing and magnitude of Pliocene meltwater discharge from mid-latitude ice sheets, 2) the extent of phosphorite deposits along the west Florida margin, especially within the Tertiary, and 3) the history of Loop Current circulation in the Eastern basin.

A transect of 6-7 sites is planned, extending from shallow (90 m) to deep water (1125 m), with penetrations of 500 to 1170 m. Drilling time would be 40 days.

The site survey data set for this proposal is excellent. A grid of high-quality single-channel seismic lines has been collected by one of the proponents (Mullins) and a detailed grid of MCS lines has been shot in the area by Digicon. Several of these lines have been

provided by Unocal. In addition, numerous bottom samples exist in the area, ODP site 625 was drilled along strike (about 300 km away), three industry wells have been drilled on the shelf landward of the proposed transect, and correlative on-land sections exist nearby. The Site Survey Panel notes the existence of USGS GLORIA data in this area and suggests that the proponents arrange to study these data in light of known slumps and channels on the west Florida margin.

13. 372 Cenozoic Circulation & Chemical Gradients (Larsen)

Site NAMD-01 is a proposal for redrilling of DSDP Site 116.

In addition to the site survey data from DSDP Leg 12, new MCS data exist at the Geological Survey of Denmark.

Site NAMD-02 (Morocco) The drilling depth is not indicated for this site. In order to detect sediment disturbances it is recommended that the site is selected on crossing high resolution SCS lines. The lines shown in the proposal may be sufficient.

It was noted that the latter site probably is included in the revised Mediterranean gateway proposal **323-Rev.**

Day Three began with discussion of more general business.

5. "ADD-ON"/SUPPLEMENTAL SCIENCE PROPOSALS (KIDD)

Two S-proposals have been received to date by the JOIDES Office but enquiries have been made linked to other submissions. The two received (Appendix 8) are for drilling on Navy Fan (Piper et al) and for additional downhole measurements in Hole 801C Jurassic Crust (Larson et al). The latter will require no action by SSP but the Navy Fan proposal involves poor quality (old) seismics and also proposes 6 days of drilling. This will certainly require SSP review if it is favoured by the thematic panels. Kidd has received a letter requesting information on SSP procedures from Piper.

SSP Action Item 5: (Kidd): SSP Chairman will respond to proponent Piper's enquiry regarding the Navy Fan S-proposal noting that the intention is for 4 days of drilling maximum for supplemental science and suggesting he take action to obtain better seismic data.

SSP member Kastens offered to help with mail review if this becomes a favoured proposal. All members will await contact on S-proposals that pass thematic panel review.

6. RECOMMENDATIONS FOR REVISION OF SSP GUIDELINES (Kidd):

JOIDES Office expects to publish a revised version of the 'Guidelines for Proponents' in the June JOIDES Journal. SSP discussed possible changes in the light of probable relaxation of safety guidelines on BSR drilling; the implications of deep-towed seismics for imaging of the rubble zones of bare-rock sites and the needs of fracture zone and other petrologic drilling in the light of the Hess Deep saga. Members took the view that in none of these areas were we ready to make major changes or create new categories in our guidelines matrix of requirements. Some minor changes were recommended which would be in the 'desirable' category and Kastens took the task of circulating a modified matrix that Kidd could pass to Blum when agreed.

SSP Consensus 9: SSP considers that it is too early to make major changes in its guidelines, in particular for BSR and FZ drilling. It will, however, provide JOIDES Office with some minor modifications prior to publication of the revised 'Guidelines to Proponents'.

SSP Action Item 6 (Kastens/Kidd): A revised version of the SSP Matrix of Data Requirements will be circulated by Kastens. SSP members will contact Kidd with any changes. Kidd will send the final version to Blum by 1 May.

7. OTHER BUSINESS:

1). Feedback to Proponents (Kidd). It was agreed that feedback to proponents from SSP should be by personal contact through its 'watchdogs'. Initial letters should always reference the current "Guidelines to Proponents" and the SSP's matrix of data requirements and also note the matrix categories that we see the proposed sites falling in. An example letter was prepared by Kidd with additions from Brenner to ensure that all the points discussed were covered. **Copies of all feedback correspondence will be sent to Kidd but also filed with the Data Bank. Proponents will be encouraged to continue to submit their data there rather than directly to SSP watchdogs.** *Feedback to North Atlantic proponents from this meeting will await PCOM's April rankings.*

2) *Panel Membership* (Kidd). In the light of discussions at the Hawaii PANCHM & PCOM meetings, Chairman polled the members on their status for rotation. Only *H. Meyer* is due for rotation in 1991. He will be replaced by another German representative after SSP's fall meeting.

3). *Electronic Communications* (Brenner). After discussion of how SSP could speed up its communications given the introduction of S-proposal mail reviews, it was agreed that each member would pursue getting themselves linked through E-Mail. Brenner offered to set up a SSP 'central mailbox' through the Data Bank.

SSP Action Item 7 (All SSP Members): The Panel will begin to communicate by E-Mail through a central Data Bank 'Mailbox'. Each will send an initial message to Carl Brenner using the following:

ODP@LAMONT.LDGO.COLUMBIA.EDU.

4) *Next Meeting.* After discussion of member's time constraints for a Sept./Oct.'91 SSP Meeting with regard to seatime and teaching, the Panel decided on dates in the second week of September. The present SSP Meeting was originally scheduled for a foreign member country, namely Japan, and Naoshi Hirata said he could host the meeting in Tokyo.

SSP Action Item 8 (Kidd): Chairman is to write to J. Austin requesting that the next *SSP Meeting* be held at *ORI, Tokyo* over three days: *September 3-5, 1991*, hosted by *Hirata*. The prime agenda items will be detailed assessment of N. Atlantic data sets in the light of the new PCOM global rankings.

The ODP/TAMU meeting was officially closed at 1130 on Day Three allowing members to prepare their sections of these minutes prior to leaving College Station.

Update of cruises of Ocean research Institute, the University of Tokyo, March 25, 1991

The *Tansei-maru* cruise

Cruise	Period	days	Area	Chief	
KT 91-5	April 9 -22,1991	14	Izu-Bonin	A.Taira	Geology
KT 91-6	May 9-17,1991	9	Izu & Sagami bay	Segawa	Geophysics
KT 91-10	July 6-15,1991	10	Nankai	Fujimoto	Geophysics
KT 91-14	Sep.14-Oct.4,1991	21	Japan Sea	Kobayashi	Geology

The *Hakuho-maru* Cruise (FY92-94)

Cruise	Period	days	Area	Chief	
KH-92-1	Jan.21-Mar.4	44	Izu-Bonin & Mariana	Segawa	Geology/Geophys
KH-92-2	May.22-Jun,30,1992	40	Izu-Bonin	A.Taira	Geology/Geophys
KH-92-3	July,17-Aug.12,1992	27	Kuril	K.Kobayashi	Geology/Geophys/ Biology
KH-93-3	July 5-Sep.17,1993	75	Indian Ocean	K.Tamaki	Geology/Geophys/ Biology
KH-94-4	Dec.9- Mar 8,1994	90	Southern Indian & Pacific	M.Terasaki	Biology/Geology/Geophys

Naoshi HIRATA

German Research Vessels : Ship Schedules 1991

FS SONNE

Cruise#	dep.	arriv.	from	- to	area/program/charterer
general	refit in	yard			
SO-75	01.10.91	- 29.11.91	Bremen	- Lisboa	Iberian abyssal plane/Geophysics/BGR
SO-76		- 25.01.92		- Balboa	Transect /PAKOMIAM Geophysics/GEOMAR
SO-77		- 21.02.92		- Balboa	DISCOL 3 / / Hamburg
SO-78		- 21.04.92		- Balboa	PERUVENT/Geophysics/GEOMAR
SO-79		- 26.06.92		- Balboa	SEDIPERU/Geolog./BGR
SO-80		- 30.08.92		- Balboa	PAKOMIAM/Geophysics/BGR

FS POLARSTERN

Cruise#	dep.	arriv.	from	- to	area/program/charterer
ANT IX/4	30.03.91	- 13.05.91	Capetown	-Bremerhav.	Bouvet Island/Chemi.,Geolog./AWIPM
ARK VIII/1	01.06.91	- 19.06.91		-Tromsoe	Framstrait/Oceanog.,Biolog.,,Geolog./AWIPM
ARK VIII/2		- 30.07.91		-Tromsoe	Arct.Shelf/Oceanog.,Biolog.,Geolog./AWIPM
ARK VIII/3		- 15.10.91		-Bremerhav.	Arct.Basin/Geol.,Biol.,Meteor.,Oceanog./AWI
ANT X/1	14.11.91	- 02.01.92		-Ushuaia	Antarc.Penins./Chemist.,Biolog.,Taxonom./AW
ANT X/2		- 23.03.92		-Capetown	Weddels./Geophys.,Glaciol.,Biol./AWIPM
ANT X/3		- 10.05.92		-Puntas Arenas	Weddels./Biolog./AWIPM

FS METEOR

Cruise#	dep.	arriv.	from	- to	area/program/charterer
M 16/1	27.03.91	- 25.04.91	Pt.Noire	- Recife	Equat.Atlantic/Geolog.,Sediment./GU Bremen
M 16/2		- 20.05.91		-Belem	Equat.Atlantic/Geolog.,Sedimen./GU Bremen
M 16/3		- 17.06.91		-Las Palmas	Equat.Atlantic/Trop.Circulation/IFM Kiel
M 16/4		- 08.07.91		-Hamburg	Canar.Islands/Site Survey VICAP/IFG Hamburg
M 17/1	15.07.91	- 08.08.91	Hamburg	- Tromsoe	Norw.Sea,Greenl./Sediment.,Benthos/GLPI Kiel
M 17/2		- 29.08.91		-Reykjavik	North Atl. Rockall Plat./Sediment./GEOMAR
M 18		- 26.09.91		-Hamburg	North Atl./WOCE Chemest./IFM Hamburg
M 19	30.09.91	- 13.10.91		-Hamburg	North Sea/TUVAS Chemist./BSH Hamburg
M 20/1	18.11.91	- 22.11.91	Hamburg	- Walvisbay	West.Atlant./Sediment.,Geolog./GU Bremen
M 20/2	open		open		
M 20/3	06.02.92	- 15.03.92	Dakar	- Las Palmas	West.Africa,Jurrasic Quiet Zone/Geophysics/B

VICAP = Volcanic Island Clastic Apron Project
TUVAS = Transport,Umsatz und Variabilitaet von Schad- und Naehrstoffen
WOCE = Worl Ocean Current Experiment

→ (possible) Site Survey

Government of Canada / Gouvernement du Canada

MEMORANDUM NOTE DE SERVICE

PGC Ship Users

Vaughn Barrie

SECURITY - CLASSIFICATION - DE SÉCURITÉ

OUR FILE – N / RÉFÉRENCE

YOUR FILE – V / RÉFÉRENCE

DATE November 29, 1990

SUBJECT

PRELIMINARY 1991 -1992 SHIPS SCHEDULE

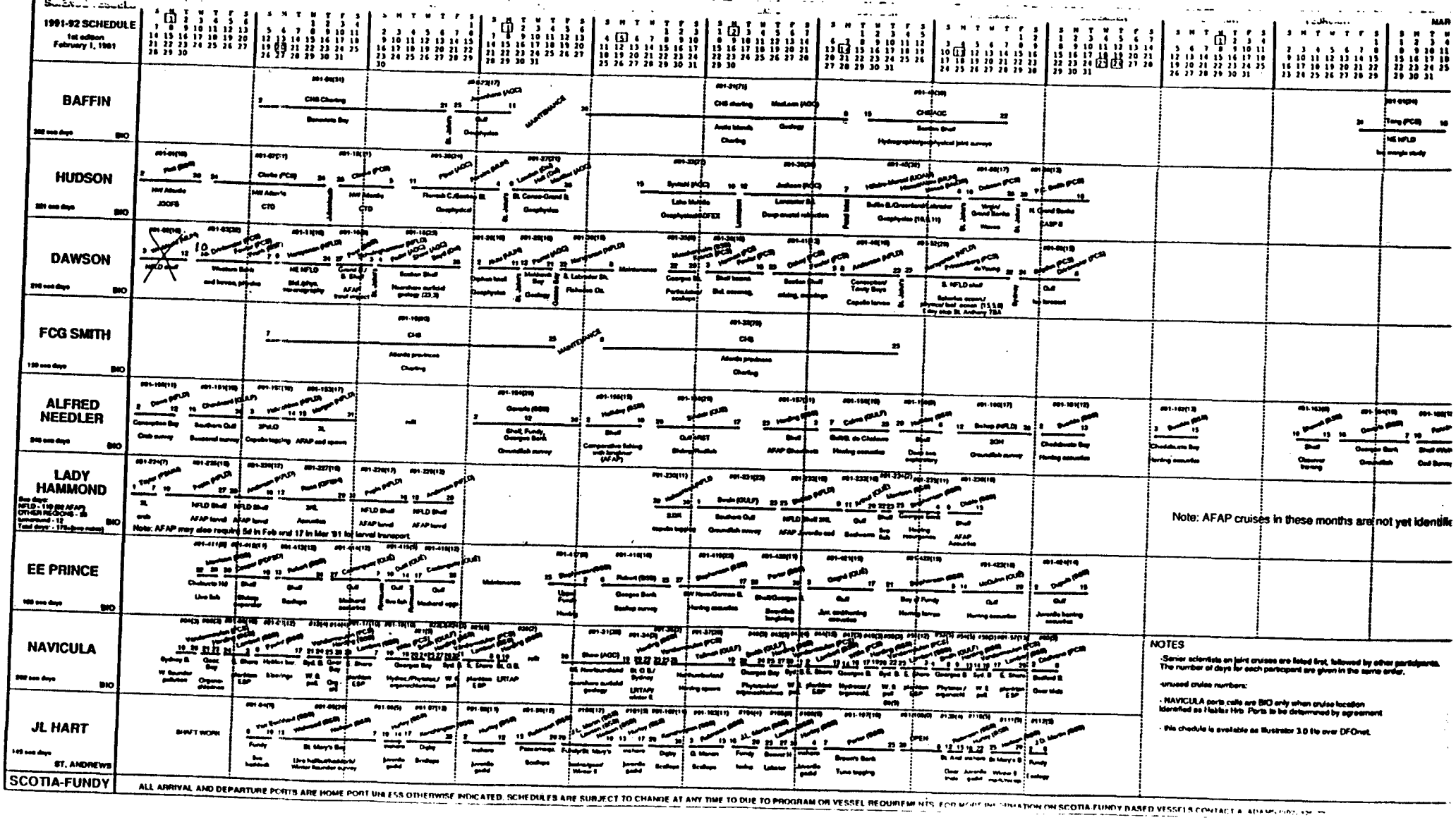
February 4 - 15	MacDonald	Saanich Inlet	Tully
April 8 - 12	Bornhold	Fraser Delta TED Deployment	Endeavour
May 13 - 24	Barrie/Hart	Knight/Bute Fraser Delta	Parizeau
May 27 - June 7	Yorath	Vancouver Island Shelf & Slope	Tully
June 10 - 28	Barrie/Rohr	Dixon Entrance	Tully
September 9 - 13	Bornhold	TED Deployment	Parizeau
Nov. 11 - 22	Law	Knight/Bute Fraser Delta	Young
Nov. 23 - Dec. 6	Lewis	Bute/Knight	Tully
Feb. 10 - 21/92	MacDonald	Queen Charlottes Equipment Testing	Tully

These dates are very preliminary and, of course, subject to change.

SPIESS (S.I.O.), YOUNG (J.P.L.), YORATH (P.G.C.)
SEAFLOOR ACOUSTIC/GPS STRAIN MONITORING + ODP BEACON DEPLOYMENT IN OCEANO L.B.L. NET FOR LEG 139 + CORING ON VANCOUVER ISLAND ACCRETIONARY PRISM FOR ORGANIC GEOCHEMISTRY (WHITICAR)

177

7540-21-788-6000


1991-92 SCHEDULE
1st edition
February 1, 1991
BAFFIN
HUDSON
DAWSON
FCG SMITH
ALFRED NEEDLER
LADY HAMMOND
EE PRINCE
NAVICULA
JL HART
ST. ANDREWS
SCOTIA-FUNDY
MAINTENANCE
SHAFT WORK
Note: AFAP may also require 5d in Feb and 17 in Mar '91 for vessel transport
Note: AFAP cruises in these months are not yet identifie
NOTES
-Senior scientists on joint cruises are listed first, followed by other participants. The number of days for each participant are given in the same order.
-unused cruise numbers:
- NAVICULA ports calls are BIO only when cruise location identified as Halifax Hrb. Ports to be determined by agreement
- this chedule is available as Illustrator 3.0 file over DFOnet.
ALL ARRIVAL AND DEPARTURE PORTS ARE HOME PORT UNLESS OTHERWISE INDICATED. SCHEDULES ARE SUBJECT TO CHANGE AT ANY TIME TO DUE TO PROGRAM OR VESSEL REQUIREMENTS. FOR MORE INFORMATION ON SCOTIA FUNDY BASED VESSELS CONTACT A. ADAMS (902) 426-

SSP APPENDIX 2.

Notes on Changes in JOIDES Proposal Numbering System

Update for
Site Survey Panel Meeting
March, 26-28, 1991
College Station

As simple as the problem of filing and numbering proposals might appear, there has been continued confusion about the use of numbers and various types of affixes by the JOIDES Office.

Ocean Indices: The early JOIDES Office used an integer followed by a slash and a character (A,B,C,D,E or F) indicating one of five major ocean areas as reference for a proposal (e.g. 999/A, A="Atlantic"). However, even though ODP planning was done regionally at that time, I suspect that filing of proposals according to oceans did not facilitate administrations nor planning. A numbering system should be as straightforward as possible, and not subdivided into arbitrary categories, a fact that becomes even more obvious when using an electronic data base. The one-out-of-five ocean code is not sufficient for planning purposes either. On one hand Bering Sea, Chile triple junction, and all in between were E-type, and on the other hand some proposals covered both central/eastern Pacific (E) and western Pacific (D). Apart from being rather useless to ascribe proposals to arbitrarily defined ocean parts, the indices are not self-explanatory. These reasons are sufficient to **abandon the indices.** In addition to that, proposals ought to be reviewed global-thematically, and not regionally, anyway.

Proposal categories: The "blue JJ" (JOIDES Journal special issue December 1988) mentions two types of proposals, preliminary (also known as immature) and mature ones. In fact practically all proposals initially submitted are immature drilling proposals. It is insignificant wether the proponents or the JOIDES Office label a proposal preliminary or mature anyway — the thematic panel review will show where a proposal stands by means of the proposal review form.

The maturing process over years, however, is one of the characteristics of ODP proposals. The products of this process are subsequent submissions of a proposal as revised versions and addenda. It is thus important that everybody involved in the review/planning process (including Macintosh) can clearly recognize the various versions/addenda in order to figure out which versions are the "active" ones. The most obvious way to achieve this is to consistently maintain the basic number for subsequent versions/addenda and attach an identifying category affix to that number in order to make each version unique. We therefore have the following proposal categories:

999---- New (initial) proposal, generally "immature". The four dashes clearly distinguish a new proposal from the other categories. The dashes may be left in general use/correspondance, if the following two affixes are used without fail.

999-Rev A revised version of proposal 999; always replaces the previous version. Note that a third version 999-Rev2 replaces the second version 999-Rev.

999-Add An Addendum to proposal 999. This can consist of additional sites, site survey or other scientific data, or objectives. Note that 999-Add2 stands for a second addendum, which may or may not replace the first one.

There are some unfortunate exceptions to the above numbering system due to inconsistent handling in earlier years. Although it should be understood, and generally was practiced, that revised proposals keep their original stem number (e.g. 244), it repeatedly happened that a proposal was given an entirely new number (e.g. 296); the original proposal "gets lost" in the system. In such a case we refer to 296-Rev, although 296---- does not exist. As a general rule we will not change the stem number of a proposal in order to avoid confusion. The following is a (yet incomplete) list of such proposals:

Initial proposal	Revised proposal	Not existent
244----	296-Rev	296----
008----	318-Rev	318----
276----	346-Rev	346----
297----	353-Rev	353----
318-Rev	362-Rev	362----
342----	378-Rev	378----
349----	380-Rev	380----
343----	384-Rev	384----
350----	386-Rev	386----
375----	387-Rev	387----

Supplemental Science Proposals: The issue of supplemental science, as discussed at the PCOM meeting in Kailua-Kona last year, required an additional proposal category (see also February JOIDES Journal), because they are treated differently in the review/planning process. Both thematic and site survey review will have to be done by mail.

Letters of Intent: Letters of intent are letters, and not proposals. They are forwarded to the panels for information, but not for review. They are referred to by the date received at the JOIDES Office, and may or may not be followed up by a proposal later on. In the past it occasionally happened that letters were handled as proposals, given a number, and sent for review to the panels, although panels really cannot review a letter. As I get involved with such "proposals" I strip them off their proposal number and file them as Letters of Intent, which leads to empty file numbers. This is the list to date of such letters:

"Proposal"	Letter of Intent	Not existent
"359"	Nov 20, 1989	proposal 359
"366"	Jan 29, 1990	proposal 366

PB: 3/25/91

SSP APPENDIX 3.

JOIDES Office, UTIG

LISTING OF PROPOSALS

Mar 25, 1991

Ref.No	Abbreviated Title	Proponents	ODP-Member Participation	Receive
384-Rev	Pacific-Atlantic connection, Venezuela basin, Aruba Gap.	Mauffret, A., & al.	F/US	07/18/90
385----	Coring of seismometer hole, south of Hawaii.	Keating, B.	US	08/07/90
385-Add	Coring of seismometer hole, north of Hawaii.	Helsley, C.E.	US	08/09/90
386-Rev	Paleoceanography and deformation, California margin.	Lyle, M., et al.	US	08/10/90
233-Rev3	Fluids and structure of accr. complex, central Oregon.	Moore, J.C., et al.	US/G	08/14/90
355-Rev2	Formation of a gas hydrate.	Von Huene, R., et al.	G/US	08/30/90
387-Rev	Deep drilling of fast-spread crust, Hess Deep.	Gillis, K., et al.	US	09/04/90
247-Add2	Water mass conversion, glacial subarctic Pacific.	Authors: Zahn et al.	CAN/US	09/17/90
286-Add2	Second addendum to "Layer 2/3 Transition, Hole 504B".	Becker, K.	US	09/21/90
388----	Neogene deep water circul. and chemistry, Ceara Rise.	Curry, W.B., et al.	US/ESF(S)/UK	10/01/90
345-Add	Addenda to proposal 345----.	Joyce, J.E., et al.	US	10/05/90
389----	Cretaceous traverse, Western South Atlantic.	Malmgren, B.A.	ESF (S)	10/29/90
362-Rev2	Triple junction, southern Chile Trench.	Cande, S.C., et al.	US/UK	11/08/90
390----	Drilling in the Shirshov ridge region.	Milanovsky et al.	SU	11/12/90
S-1	Lithofacies and cyclicity, Navy Fan.	Piper, D.J.W., et al.	CAN/US	11/21/90
334-Rev	S reflector and ultramafic basement, Galicia margin.	Boillot, G., et al.	F/ESF(E)	12/27/90
391----	Formation of sapropels, eastern Mediterranean.	Zahn, R., et al.	G/US/CAN	01/02/91
059-Add	Cont. margin sed. instability, drilling adjacent turbidites.	Weaver and Kidd	UK	01/15/91
392----	Mantle plume origin, North Atlantic volcanic margins.	Larsen, H.C., et al.	ESF/CAN/UK	01/29/91
393----	Continent-ocean transition, Greenland volcanic margin.	Larsen, H.C., et al.	ESF(DK)/UK	01/29/91
365-Rev	Conjugate passive margins, North Atlantic	Austin, J., et al.	US/F/ESF/CAN	02/04/91
394----	Pre/syn-volcanic extensinal basins on passive v. margins.	Kiørboe, L.V., et al.	ESF(DK,IS)	02/04/91
323-Rev	Alboran basin and Atlantic-Mediterranean gateway.	Comas, M.C., et al.	ESF/F/UK/G/US	02/11/91
395----	Compressional tectonics on a passive volcanic margin.	Boldreel and Anderson	ESF(DK)	02/11/91
396----	Testing hot-spot model for volcanic passive margins.	Andersen, M.S.	ESF(DK)	02/11/91
363-Add	Paleoceanographic record at sites NR1, NR2, and NR3.	Tucholke, B.E.	US	02/18/91
397----	Mantle plume and multiple rifting, North Atlantic.	Skogseid, J., et al.	ESF(N/IS)	02/20/91
398----	Quat. Paleoceanography, Grand Banks, Newfoundland.	Piper, D.J.W., et al.	CAN	02/22/91
361-Rev	Hydroth. system, slow-spread. ridge, MAR 26°N (TAG).	Thompson, G., et al.	US/UK/F/CAN/	03/01/91
S-2	Downhole measurements Jurassic crust, Hole 801C.	Larson, R.L., et al.	US	03/20/91

ODP OPERATIONS SCHEDULE

Leg		Cruise Dates	Days at Sea	In Port
135	Lau Basin	22 December 1990 - 28 February 1991	68	Honolulu, 28 Feb-02 Mar 91
136	OSN-1	03 March - 20 March 1991	17	Honolulu 20 Mar 91 (Scientific Party Change)
137	Hole 504B	21 March - 01 May 1991	41	Panama 01-05 May 91
138	E. Equatorial Pacific	06 May - 05 July 1991	60	San Diego 05-09 July 91
139	Sedimented Ridges I	10 July - 11 September 1991	63	Victoria 11-15 Sept 91
140	504B*/Hess Deep	16 September - 12 November 1991	57	Panama 12-16 Nov 91
141	Chile Triple Junction	17 November 1991 - 13 January 1992	57	Valparaiso 13-17 Jan 92
142	Engineering, EPR	18 January - 19 March 1992	61	Honolulu 19-23 Mar 92
143	Atolls & Guyots A	24 March - 19 May 1992	56	Guam 19-23 May 92
144	Atolls & Guyots B	24 May - 19 July 1992	56	Honolulu 19-23 July 92
145	North Pacific Transect	24 July - 21 September 1992	59	Seattle 21-25 Sept 92
146	Cascadia	26 September - 21 November 1992	56	San Diego 21-25 Nov 92
147	Engineering, EPR‡/ Hess Deep	26 November 1992 - 21 January 1993	56	Panama Into the Atlantic

*If cleaning operations successful on Leg 137

‡If DCS Phase III System Ready

TJ67

Revised 10 December 1990

SSP APPENDIX 5

Assessment of Drilling Proposals for the Atlantic

Prepared by the JOIDES Office for the
Site Survey Panel meeting
March, 26-28, 1991
College Station

A) Proposals highly ranked (1-5) in spring '90 sessions

A1. Forwarded to *North Atlantic Rifted Margins DPG* (NEW WATCHDOG - LEWIS

Proposal	Received	Abbreviated Title	Comments	Assign. 7/90
310----	09/21/88	Geochemical sampling of dipping reflector sequences.		H. Meyer
311----	09/21/88	Sedimentary equivalent of dipping reflector sequences.		H. Meyer
328----	06/06/89	Drilling on the continental margin, east Greenland.		H. Meyer
358----	11/13/89	Volcanic rifted passive margins, Vøring margin.		H. Meyer
363----	01/18/90	Plume volcanism and rift/drift, Grand Banks-Iberia.		A. Lewis
334-Rev	12/27/90	S reflector and ultramafic basement, Galicia margin.	REVISED!	R. Kidd
365-Rev	02/04/91	Conjugate passive margins, North Atlantic	REVISED!	P. Symonds K. Louden

A2. Forwarded to *North Atlantic - Arctic Gateways DPG* (WATCHDOG - LARSEN)

305----	06/20/88	Arctic ocean drilling.		B. Larsen
320----	03/03/89	Paleoceanography and paleo-climatology, Nordic Seas.		B. Larsen
336----	07/31/89	Arctic to North Atlantic gateways.		B. Larsen

A3. Others, likely to be at top in spring '91 ranking

361-Rev	03/01/91	Hydroth. system, slow-spread. ridge, MAR 26°N (TAG).	REVISED!	~~R. von Herzen~~ NOW LOUDEN
369----	02/20/90	Deep mantle section, Mark area.		N. Hirata
348----	08/16/89	Paleogene/Neogene stratigraphy, U.S. Atlanic margin.		K. Kastens

B) Proposals ranked 6-10 at spring '90 session

313----	09/26/88	Major oceanographic pathway, equatorial Atlantic.		G. Pautot
333----	07/27/89	Evolution of pull-apart basin, Cayman Trough.		~~S. Lewis~~ Now KIDD
346-Rev	08/14/89	Drilling equatorial Atlantic transform margin.		G. Pautot
347----	08/15/89	L. Cenozoic paleoceanogr., south-equatorial Atlantic.		? FAILE
376----	03/07/90	Layer 2/3 (and crust/mantle) boundary, Vema FZ.		~~N. Hirata~~ Now von Herzen
378-Rev	05/12/90	Growth and fluids evol., Barbados accretionary wedge.		~~G.F. Moore~~ Now KIDD.

C) Proposals ranked 11-15 at spring '90 session

323-Rev	02/11/91	Alboran basin and Atlantic-Mediterranean gateway.	REVISED!	K. Kastens
343----	08/08/89	Window of Cret. volcanic formation, Caribbean Zone.		FAILE
345----	08/11/89	Sea level and paleoclimate, West Florida margin.		G.F. Moore
345-Add	10/05/90	Addenda to proposal 345—	NEW!	G.F. Moore
372----	02/26/90	Cenozoic circulation & chem. gradients, North Atlantic.		B. Larsen

D) Proposals not ranked at spring '90 session

370----	02/22/90	Magmatic processes and Natural Tracers, MAR.		
374----	03/06/90	Mantle heterogeneity, Oceanographer Fracture Zone.		
381----	03/19/90	Drilling on continental shelf and slope, Argentina.		
380-Rev	05/01/90	Volcanic island - clastic apron, Gran Canaria.		
382----	05/03/90	Upper mantle - lower crustal uplifted section, Vema F.Z.		
379----	03/12/90	Scientific drilling in the Mediterranean Sea.		
383----	05/22/90	Extension and continent-cont. collision, Aegean Sea.		

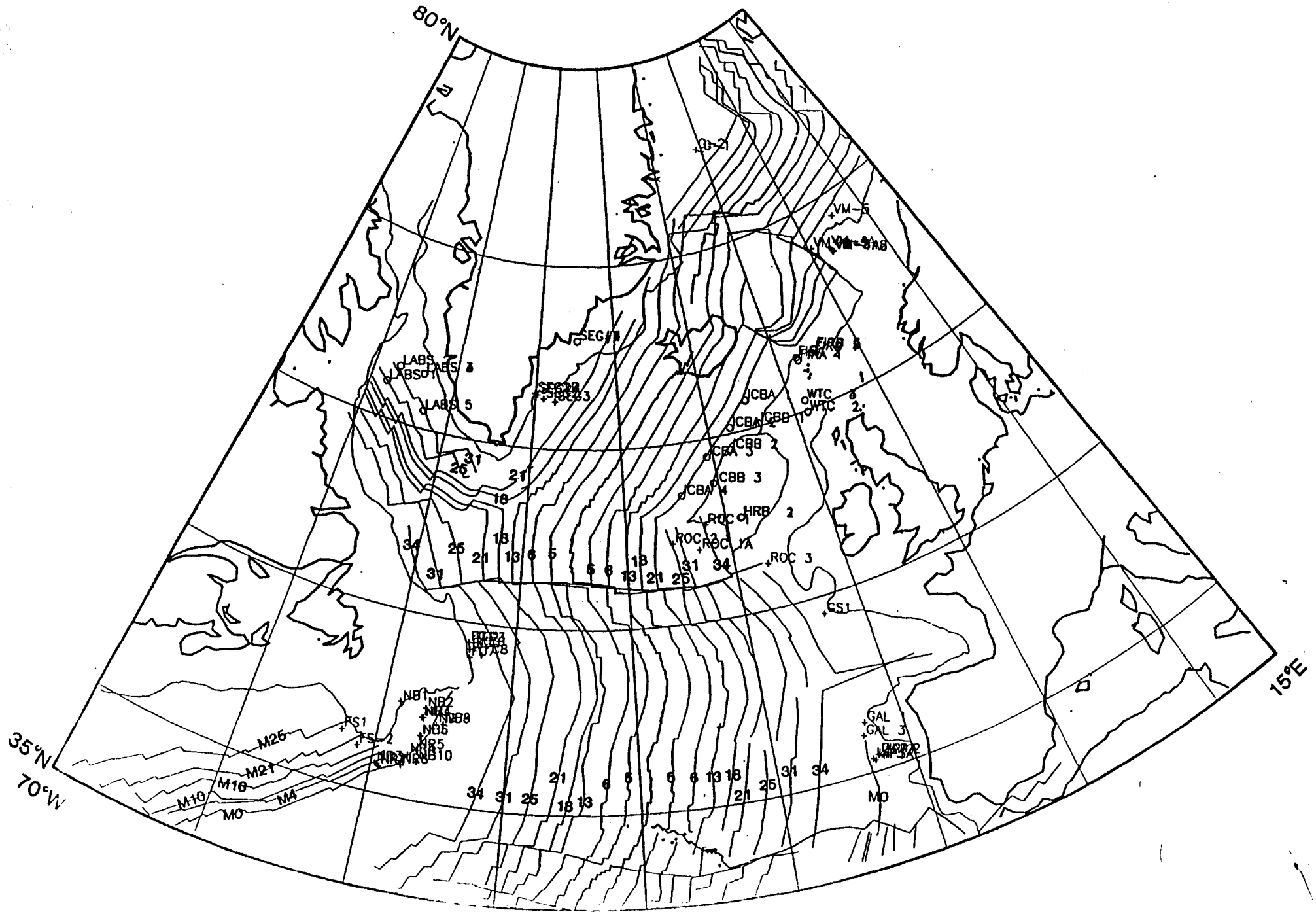
332----	07/25/89	Drilling transect, Florida Escarpment.		
326----	05/11/89	Continental margin drilling, Morocco/Northwest Africa.		

E) New/rev. (>=7/90) proposals, except those mentioned above

384-Rev	07/18/90	Pacific-Atlantic connection, Venezuela basin, Aruba Gap.		
388----	10/01/90	Neogene deep water circul. and chemistry, Ceara Rise.		
389----	10/29/90	Cretaceous traverse, Western South Atlantic.		
059-Rev2	09/21/88	Cont. margin sed. instability, drilling adjacent turbidites.	Reference for 059-Add	
059-Add	01/15/91	Cont. margin sed. instability, drilling adjacent turbidites.		
391----	01/02/91	Formation of sapropels, eastern Mediterranean.		
392----	01/29/91	Mantle plume origin, North Atlantic volcanic margins.	(NARM)	
393----	01/29/91	Continent-ocean transition, Greenland volcanic margin.	(NARM)	
394----	02/04/91	Pre/syn-volcanic extensinal basins on passive v. margins.	(NARM)	
395----	02/11/91	Compressional tectonics on a passive volcanic margin.	(NARM)	
396----	02/11/91	Testing hot-spot model for volcanic passive margins.	(NARM)	
363-Add	02/18/91	Paleoceanographic record at sites NR1, NR2, and NR3.	(NARM)	
397----	02/20/91	Mantle plume and multiple rifting, North Atlantic.	(NARM)	
398----	02/22/91	Quat. Paleoceanography, Grand Banks, Newfoundland.	(NARM)	

PB: 3/24/91

SSP Appendix 6 (Map 1.)



ODP Proposal Log Sheet 310----

Proposal received: Sep 21, 1988

☒ New proposal ☐ *Revised proposal* ☐ *Addendum to proposal* ☐ *"Supplemental Science" Proposal*

Geochemical Sampling of Dipping Reflector Sequences

Abbrev. Title: Geochemical sampling of dipping reflector sequences. General area: Northeast Atlantic

A.C. Morton, L.M. Parson, R.C.O. Gill, E.A. Hailwood, R.B. Kidd, P.N. Taylor, and R.S. White

Contact:

Dr. Andrew C. Morton
British Geological Survey
Keyworth
Nottingham NG12 5GG
UNITED KINGDOM

Tel: 44 (060) 776-111
FAX: 44 (060) 776-602

Objectives:

	LRP
1. Composition, parentage, structure, and stratigraphic evolution of dipping reflector sequences (DRS).	2/7
2. Composition and stratigraphy of the sequence underlying the DRS; extrusion mechanism.	2/7
3. Sedimentary and subsidence history of the margin.	7
4. Eocene-recent paleoceanographic and paleoclimatic history (paleomagnetic/biostratigraphic ties).	12/13

Specific area: Southeast Greenland margin at 63°N

Proposed Sites:

Site Name	Position	Water depth	Penetration Sed	Bsmt	Total	Brief site-specific objectives
SEG1	63°04'N/40°05'W	1080	336	753	1089	Sample DRS and underlying crust and overlying sediments.
SEG2	62°48'N/39°00'W	1998	1239	161	1400	Geochem. sampling of DRS; complete sediment sequence.
SEG2A	63°00'N/39°48'W	1435	1510	190	1700	As SEG2
SEG2B	63°05'N/40°00'W	1406	1197	153	1350	As SEG2
SEG3	62°40'N/37°35'W	2072	1550	150	1700	Geochem. sampling of DRS; complete sediment sequence.

Proposal acknowledged by JOIDES Office:	Sep 22, 1988	to:	Morton, A.C.
Proposal forwarded for review:	Sep 22, 1988	to:	LITHP, SOHP, TECP, ARP
Proposal copies:	Sep 22, 1988	to:	JOI, SO, SSDB
Proposal forwarded to DPG:	Feb 6, 1991	to:	NARM-DPG (North Atlantic Rifted Margins)

ODP Proposal Log Sheet **358----** Proposal received: Nov 13, 1989

☒ New proposal ☐ *Revised proposal* ☐ *Addendum to proposal* ☐ *"Supplemental Science" Proposal*

Formation of Volcanic Rifted Passive Continental Margins: Proposal for a Drilling Transect at the Vøring Margin

Abbrev. Title: Volcanic rifted passive margins, Vøring margin. General area: North Atlantic

O. Eldholm, J. Skogseid and S.T. Gudlaugsson

Contact:

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Objectives:

LRI

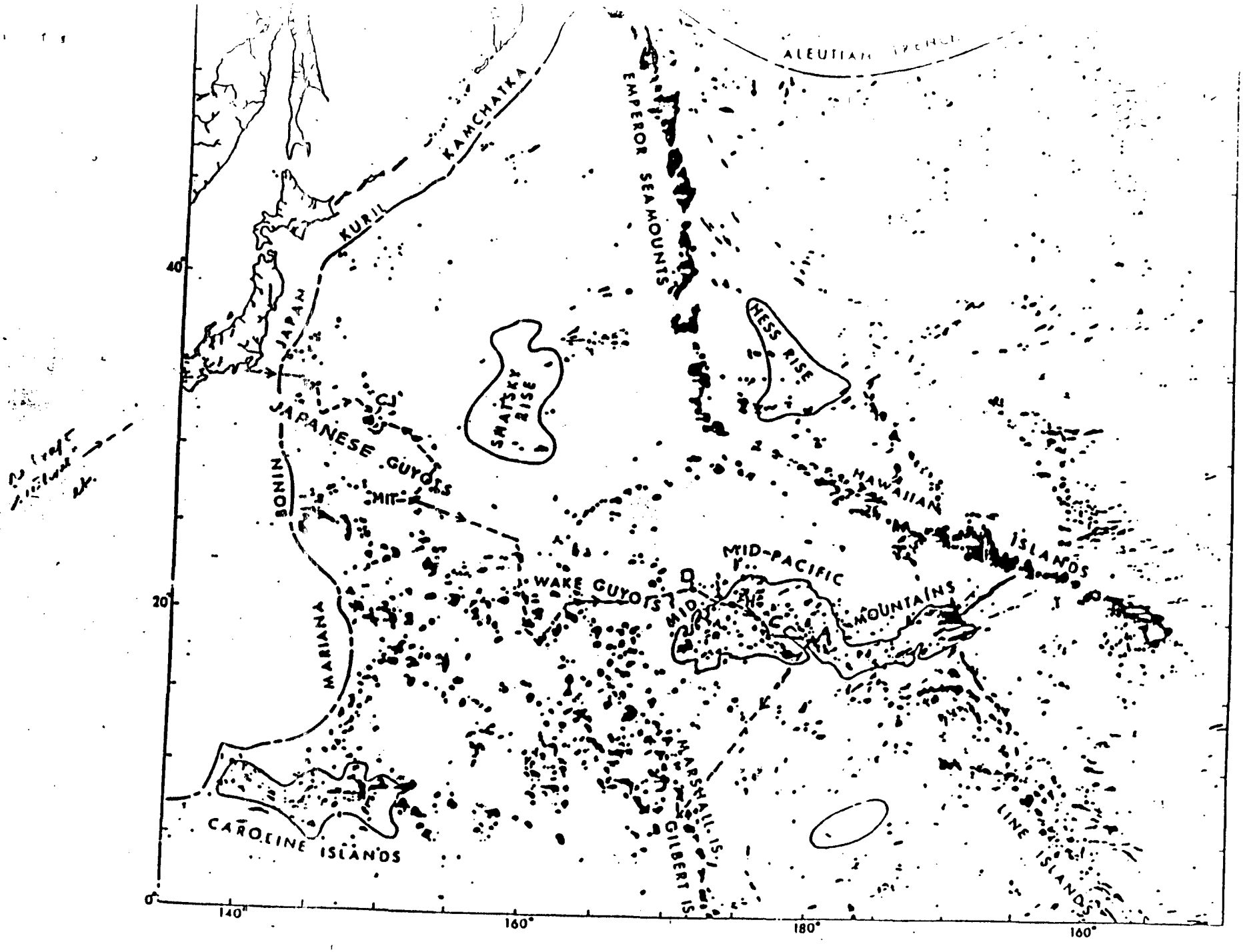
1. Late rift paleoenvironment; sampling relatively thick interbedded sed. (and underlying rocks?). 7
2. Emplacement of dipping reflector sequences: during late rifting or breakup and initial spreading? 7
3. Transitional region of heavily contaminated continental crust vs. distinct continent-ocean boundary. 7
4. Asymmetric breakup; comparing geology on either side of steep seaward terminat. of dipping wedge. 7
5. Origin of sub-bsmt. (incl. seaward dipping) refl.: superimposed signals from composite rock units?
6. Evaluation if one or more hotspots were causing the magmatic event. 7
7. How did outer margin subside/time, allowing for accr. of oldest crust at anomalously shallow levels? 7
8. Transport of Arctic waters into world's oceans, and late Cenozoic northern hemisphere glaciations. 12/13
9. Source of ashes; relationship with breakup events; comp. of compositional prop. of flows and sed.
10. Magnitude, timing and cause of large regional, late Neogene continental uplift.

Specific area: Vøring Margin

Proposed Sites:

Site Name	Position	Water depth	Penetration Sed	Bsmt	Total	Brief site-specific objectives
VM-1/64	67°13.2'N/02°55.8'E	1289	300	1500	1800	Drilling a unit of dacitic flows and interbedded sediments.
VM-1Aa	67°10'N/03°00'E	1200	330	920	1250	Through tholeiitic & dacitic flows/sed. into underl.complex
VM-1Ab	67°10'N/03°06'E	1200	180	1340	1520	As VM-1Aa.
VM-2	67°18'N/02°54'E	1330	420	500	920	Early Cenozoic history of central seaward dipping wedge.
VM-3	67°25'N/02°48'E	1370	470	500	970	Early Cenozoic history of outer seaward dipping wedge.
VM-4	67°30'N/02°45'E	1405	560	150	710	Nature of basement seaward of dipping wedge.
VM-4A	67°28'N/02°46'E	1400	540	900	1440	Drill through "boundary fault" of seaward dipping wedge.
VM-5	68°50'N/05°25'E	3180	470	400	870	Nature of less developed seaward dipping reflector wedge.
VM-6	67°53'N/00°24'E	3370	600	100	700	Oceanic crustal reference hole for volcanic margin transect.

Proposal acknowledged by JOIDES Office:	Nov 14, 1989	to:	Eldholm, O.
Proposal forwarded for review:	Nov 14, 1989	to:	LITHP, OHP, SGPP, TECP
Proposal copies:	Nov 14, 1989	to:	JOI, SO, SSDB
Proposal forwarded to DPG:	Feb 6, 1991	to:	NARM-DPG (North Atlantic Rifted Margins)



SSP APPENDIX I

1. Seamounts in NW Pacific. A, Allison; C, "Caprina", CJ, "Charlie Johnson"; D, Darwin, H, "Huevo", M, "M.I.T.". Names in quotation marks are informal names, not listed in the official U.S. gazeteer

April 3, 1991

Dr. David Piper
Atlantic Geoscience Centre
Bedford Institute of Oceanography
Halifax, Nova Scotia, Canada B3H 3J5

Dear David:

JOIDES PROPOSAL S-1 - NAVY FAN

This is in response to your note on the above proposal. I understand you have now received information from JOIDES Office on the procedures being adopted by PCOM and the panel system to deal with 'supplemental science' proposals.

At our recent meeting at ODP/TAMU the Site Survey Panel did not review the Navy Fan proposal; this will be carried out by mail review if it becomes highly ranked by one or more of the thematic panels. In the meantime, all SSP Members have a copy of S1 and I will contact a subgroup of the membership if and when mail review becomes necessary. Our initial concerns were:

1) The seismic reflection data is indeed of poor quality and proponents should make every effort to find better quality lines or to look for a 'ship of opportunity' to run at least a single quality line, for example when transitting in or out of San Diego.

2) No S-proposal is to be allotted more than 4 days of shiptime according to PCOM's procedures, so a single good quality line may suffice.

You should note that SSP's guidelines and matrix for data requirements were last published in the blue special issue of Joides Journal circa 1987, although we do expect to make minor modifications in this June's issue. Your sites would fall in the shallow penetration HPC category. Any data that you send in support of your proposal should be sent to the ODP Data Bank at LDGO. Carl Brenner, the Data Bank Manager, should be contacted for advice on data formats for submission.

Yours sincerely,

Robert B. Kidd
Chairman, JOIDES Site Survey Panel

dec

pc: Carl Brenner, ODP Data Bank

April 3, 1991

Dr. Brian Tucholke
Department of Geology & Geophysics
Clark 241
Woods Hole Oceanographic Institution
Woods Hole, MA 02543

Dear Brian:

JOIDES PROPOSAL 365 REV. and NARM - DPG

The JOIDES Site Survey Panel reviewed the above proposal (and a report of the NARM-DPG) at its March 23-28 meeting at ODP-TAMU.

I was the assigned SSP 'watchdog' to proposal 365 - but, with the merging of proposals into a DPG Program, Dr. Steve Lewis will now fulfill that role. Steve will henceforth be preparing presentations to the Panel on your data package and I urge you to keep him informed of any updates or revisions. If you have not already studied them, the Panel's guildelines for data requirements are outlined as a matrix in the blue circa. 1987 special issue of JOIDES Journal and will be re-published with slight modification in the June '91 issue. Your sites will come under the passive margin/re-entry categories.

At this March SSP meeting the discussions on your proposal resulted in the following extract in the recorded minutes:

"The DPG has combined specific sites and objectives from 7 individual proposals into a coherent drilling plan based on the "conjugate margin transect" concept. Four transects, requiring approximately 4-6 drilling legs, were identified:

1) Northeast Greenland - Voring Plateau (proposal #358 and sites 642-644),
2) Southeast Greenland - Faeroes/Hatton Bank (proposal #310 and sites 552-555),
3) Northern Flemish Cap - Goban Spur (proposal #365 Rev.),
4) Newfoundland Basin - Iberia Abyssal Plain (proposal #365 Rev. and sites 637-641.

These transects include both volcanic and non-volcanic margin targets.

Data in support of proposed drillsites include a wide variety of single-ship MCS data, some two-ship constant offset and expanding spread profiles, previous drilling results, side-scan sonar data, submersible observations, and coring samples. However, some proposed sites are not presently located at seismic line intersections, and other site survey requirements are not explicitly satisfied. Additional site survey data may be required for some sites. Specific drilling objectives and site locations will continue to be refined during a possible additional meeting of the NARM-DPG, to take place during the summer of 1991".

Any data that you can send for review at the September '91 SSP Meeting would prove useful at this stage. Note however, that data sets should continue to be sent to the ODP Site Survey Data Bank at Lamont-Doherty Geological Observatory in New York, rather than directly to your SSP 'Watchdog'. Carl Brenner can provide advice on the acceptable data formats for submissions.

Please keep in touch.

Yours sincerely,

Prof. Robert B. Kidd
Chairman, JOIDES Site Survey Panel

dec