OCEAN HISTORY PANEL
30 September-2 October 1992 Marseilles, France

EXECUTIVE SUMMARY

Meeting Description. The Ocean History Panel held its fall 1992 meeting at the CNRS Training Center at Marseille-Luminy, Marseilles, France, hosted by Dr. Edith Vincent. *(Minutes, Table of Contents, item 1)*

North Atlantic-Arctic Gateways Leg 1 (Leg 151). We strongly reiterate by panel consensus our view that decisions about icebreaker use (which one and for how long) for the high OHP priority Leg 151 be made primarily on the basis of the scientific objectives and opportunities of the leg (see statement in Spring 1992 OHP minutes for details if needed). We encourage continued contact between the co-chief scientists and ODP/TAMU in achieving this balance. *(Minutes, 3a)*

Leg 145 (North Pacific Transect) drilling strategy. OHP notes that these achievements were made possible by the flexibility in pursuing drilling operations by Ron Grout, drilling superintendent, in cooperation with the chief scientists. His use of an aggressive coring strategy with the APC, using it to deeper depths than conventional wisdom would suggest, with larger pullouts and the washover technique when necessary, ensured the outstanding scientific achievements of this leg. In addition, this aggressive APC strategy opens all high latitude oceans dominated by siliceous sediments to detailed paleoceanographic investigation. *(Minutes 3e)*

Biostratigraphy Software. The currently available biostratigraphy range chart software on the JOIDES Resolution is outdated and cumbersome. Shipboard biostratigraphers must spend an inordinate amount of time filling out paper forms and transcribing data; as a result, there have been some near disasters in production of range charts. OHP members strongly support the development and installation of software for range chart production. We recommend that the software has the following capabilities: (1) that it be Macintosh-based in light of the large proportion of such computing equipment on the ship and in the paleontology lab, and (2) that it can interface with Unix-based software in view of anticipated future developments in the shipboard computing environment. *(Minutes, 3g)*

Reviews of New Proposals. We reviewed thirty-three new submissions, with panel views summarized in written reviews and ranking summarized in tabular form. *(Minutes, 4)*

Ranking of Atlantic and Eastern Pacific Prospectus (FY94 drilling).

#	Proposal/key title	No. voting	Total points possible	Total points awarded	Fraction awarded/ available points
1	388/388-Add Ceara Rise	14	82	82	**1.00**
2	391-Rev Mediterranean sapropels	15	87	50	**0.57**
3	405-Rev Amazon Fan	15	87	46	**0.53**
4	323-Rev3 Alboran Sea evolution	15	87	43	**0.49**
5	380-Rev3 MAP leg	14	83	34	**0.41**
6	NARM-DPG Non-Volcanic Leg II	15	87	34	**0.39**
7	380-Rev3 VICAP leg	14	83	9	**0.11**

Of no OHP interest, and therefore not ranked:

346-Rev3 Eastern Equatorial Atlantic transform
361-Rev2 TAG hydrothermal system
369-Rev2 MARK lithosphere
414-Rev Northern Barbados Ridge
NARM-DPG Volcanic Leg II

Of those eligible to vote, 388/388-Add, Ceara Rise, was the **unanimous first choice** of the panel, and is clearly **our highest priority** of the AEPP programs. Panel consensus was also clear with respect to the ranking of 391-Rev. The number two ranking of this program reflects the lack of other programs of strong OHP interest in the AEPP, and does not reflect a panel endorsement of scheduling this leg based on the current proposal for our thematic interests. The fraction of available points awarded for the programs ranked 2-6 are very close, with 2, 3, and 4 quite close, and slightly separated from barely distinguishable 5 and 6 ranked. There was little interest in the VICAP leg of 380-Rev3, with it being lowest or second-to-lowest priority for the vast majority of panel members voting. *(Minutes, 6)*

Reviews/Responses/Evaluations.

High-temperature down-hole sampling device. The scientific objectives and applications are outside the OHP mandate, and we leave these matters in the hands of the panels more involved. *(Minutes, 7a)*

ODP Publicity. We discussed program visibility from three perspectives: (1) links to other global geoscience initiatives, (2) visibility within the scientific community, and (3) visibility to the general public. *(Minutes, 7b)*

Core repositories. (1) SHOULD CORES BE REFRIGERATED? Panel consensus was clear that the core collection should continue to be refrigerated. (2) SHOULD CORES BE MOVED? No, definitely not! (3) SHOULD ADDITIONAL REPOSITORIES BE ESTABLISHED? One view, probably that of the panel majority, felt that the ideal arrangement would be one central facility, and that the three existing repositories represented as large a compromise from the ideal as acceptable. In particular, it was emphasized that the existing core

repositories have a consistent philosophy for core handling, with long experience and a demonstrated successful track record. Others on the panel felt that, although a small number of repositories was obviously ideal, three was not a magic number; why not four or five? Other more indirect, scientific benefits might accrue as well. *(Minutes, 7c)*

High-temperature borehole instrumentation (HTBI) test. Although not within OHP mandate, it seems reasonable that the existing guidelines should be followed. *(Minutes, 7d)*

Offset(-Section)-Drilling Working Group Report. This does not lie within the OHP mandate and we make no recommendation about the report or the working group. *(Minutes, 7e)*

Sea Level Working Group Report. By panel consensus, we recommend that the SL-WG report be accepted and that the SL-WG be disbanded. There was no support for a separate Sea Level Program, whose details are not entirely clear, in the advisory structure. There was also concern about the report's specification of a requirement of one leg/year for sea level objectives, when evaluation of existing and soon-to-be drilled legs with sea level objectives is needed, in the absence of highly ranked proposals, and given the other objectives of thematic interest. Acceptance of the report should not be taken as endorsement of or commitment to this level of drilling effort. While the efforts of the working group to identify watchdogs and proponents for specific targets are well-received, wider solicitation to the scientific community for proponents and proposals should be made, most appropriately by the JOIDES office. This target list of scientists should not be viewed as an exhaustive or an exclusive one by virtue of the report's acceptance. Consistent with PCOM's request, three panel members were named to serve as watchdogs for sea level objectives of OHP interest: Carter, Hine, and Raymo. *(Minutes, 7f)*

NAAG Program. Gerold Wefer is the watchdog. *(Minutes, 7g)*

Items of Concern for Panel Chairs' Meeting. Several points about proposals arose: (1) addenda and revisions should be required to have a section which summarizes what has changed and how these changes respond to the points raised in earlier reviews, and (2) the ideal format for a proposal should be for it to approach drilling prospectus format as it approaches maturity, and proponents should be encouraged to consider the best of these as models. *(Minutes, 9a)*

Diamond Coring System. By panel consensus, OHP strongly urges a land-based test of the DCS system in realistic lithologies representing those of interest to OHP (e.g., alternating hard and soft lithologies, vuggy limestones). Such a test under ideal conditions will be critical to evaluating the potential of DCS for shipboard recoveries of such material, and thus critical for obtaining continued OHP support for DCS development. *(Minutes, 9b)*

Panel Membership. We reached panel consensus on two nominees to replace Tim Bralower's expertise and one (industry) nominee to replace Tom Loutit's expertise. *(Minutes, 10)*

Future Meetings. Spring 1993: 4-6 March 1993 in Santa Cruz, CA (joint with SGPP). Fall 1993: 6-8 October 1993, Bremen, Germany, hosted by G. Wefer. *(Minutes, 11)*

OHP MINUTES

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30 September-2 October 1992

DETAILED MINUTES

1. INTRODUCTIONS AND MEETING LOGISTICS

The Ocean History Panel held its fall 1992 meeting at the CNRS Training Center at Marseille-Luminy, Marseilles, France, hosted by Dr. Edith Vincent. The meeting opened with introductions of all present, and with gracious welcomes from Edith Vincent, host, and Yves Lancelot, department chair. In attendance were the following panel members:

Jan Backman, John Barron, Timothy Bralower, Robert Carter, James Channell, Margaret Delaney (chair), Timothy Herbert, Albert Hine, Hisatake Okada, Lisa Pratt, Maureen Raymo, Edith Vincent, Philip Weaver, Gerold Wefer, and James Zachos,

with the following liaisons and guests:

Hugh Jenkyns (PCOM), Brian Lewis (PCOM chair), John Firth (TAMU-ODP), John Tarduno (LITHP), Eystein Jansen (ESF), Bill Curry (WHOI; day 2), and Paul Dauphin (NSF/ODP).

Tom Loutit resigned from the panel as a U.S. representative with his move to Australia. Regrets had been received from Peter Swart (SGPP liaison), and Tom Janecek was unable to attend.

2. PRIOR MINUTES

No comments or changes were required. The chair thanked panel member Herbert for his assistance with keeping minutes.

3. REPORTS FROM LIAISONS

a. PCOM report Hugh Jenkyns

Jenkyns reviewed the recent PCOM meetings, commenting on several issues including: core repository discussion, reconfirmation of interest in DCS development, the RFP for the computing facilities, monetary issues relative to the cost of the iceboat for Leg 151 and the costs of DCS development and computer system upgrades, NARM Leg 1 drilling priorities, and the pore fluid sampling RFP status. Delaney described PCOM's active solicitation of thematic panel advice on the decisions relative to NARM priorities, and the response OHP had given. In response to a question, Jenkyns noted that the PCOM view on deep drilling was based on ODP/TAMU's view that the capability currently exists.

Several important deadlines were noted: update of site survey information for programs in the prospectus are due by **1 November 1992**. Proposal deadlines are now **1 January** and **1 July**.

There was concern expressed that, in the discussions about funding, it seemed that development of the DCS and computer system upgrades were viewed as dependent on cost-savings for the icebreaker for Leg 151. All three items have been of high priority for this panel, and it was recognized that difficult choices must be made and that cost savings, whenever appropriate, should be achieved.

We strongly reiterate by panel consensus our view that decisions about icebreaker use (which one and for how long) for the high OHP priority Leg 151 be made primarily on the basis of the scientific objectives and opportunities of the leg (see statement in Spring 1992 OHP minutes for details if needed). We encourage continued contact between the co-chief scientists and ODP/TAMU in achieving this balance.

b. SGPP report Jim Zachos

Zachos reported on the Spring 1992 (Miami) meeting and the Fall 1992 (Kiel) SGPP meetings, describing their spring global ranking and fall prospectus program ranking and their responses to the working group reports being evaluated (SL-WG and OD-WG). He discussed their interests in clarifying panel responses to proposals in areas where our thematic mandates overlap, their skepticism about continuing DCS development given their other engineering needs, and the items they would place on an agenda for discussion for our upcoming joint meeting in Spring 1993.

c. LITHP report John Tarduno

Tarduno read a letter from Chair Humphris supporting further DCS development, and suggesting that future tests occur in a less hostile environment. LITHP also strongly supports the deep drilling feasibility study.

d. TECP report Brian Lewis

PCOM chair Lewis described the fall prospectus ranking by TECP, a discussion of the justification of site survey requirements, and their responses to the SL-WG and OD-WG reports.

e. Results from recent legs

Jenkyns and Bralower reported on the results from **Leg 143** (Atolls and Guyots, Leg 1) and Firth on the results from **Leg 144** (Atolls and Guyots, Leg 2). The very different tectonic histories in the two regions make the comparison between the two interesting. Shore-based science will produce much of the story, and there is some optimism for evaluating the role of such drilling in assessing sea level changes. Carbonate platform drowning was clearly not synchronous. OHP supported these legs primarily based on their Mesozoic objectives, with secondary support for sea level aspects. The panel was pleased with the initial results and the projected research relative to our thematic interests, with the added bonus of a potentially very useful Paleogene section (Site 865).

Barron reported on **Leg 145** (North Pacific Transect), highlighting the scientific achievements in high-latitude, high-resolution paleoceanography. The panel noted with enthusiasm the shipboard construction of a long, detailed magnetic reversal stratigraphy at all sites except the first, producing at least three stratigraphies longer in time than ODP has previously achieved, the record depth achieved with the APC at Site 882 (nearly 400 m total), and the overall achievements in drilling in this oceanographically significant region.

OHP notes that these achievements were made possible by the flexibility in pursuing drilling operations by Ron Grout, drilling superintendent, in cooperation with the chief scientists. His use of an aggressive coring strategy with the APC, using it to deeper depths than conventional wisdom would suggest, with larger pullouts and the washover technique when necessary, ensured the outstanding scientific achievements of this leg. In addition, this aggressive APC strategy opens all high latitude oceans dominated by siliceous sediments to detailed paleoceanographic investigation.

f. Updates on scheduled legs

Subject to final review by PPSP, one day of drilling in Santa Barbara Basin is scheduled for **Leg 146**. The letter from Jack Baldauf soliciting scientists for description, sampling, and post-cruise work was circulated to the panel, and the logistics for core handling were presented by John Firth. Although not strictly within our thematic mandate, the panel noted that results from interstitial water samples on these sediments could be quite interesting. The panel expressed its concern that care be taken to ensure the quality of MST data to be acquired on Leg 147 on these cores.

Issues relative to **Leg 149** (NARM Leg 1) and **Leg 151** (NAAG Leg 1) had been discussed during the PCOM report.

g. Other TAMU/ODP news John Firth

Firth reviewed the drilling schedule and the status of staffing. There is one staff scientist opening, with applications still welcome. Firth commented on DCS status, the evaluation of progress from Leg 142 (where a bent cylinder seemed to be a major cause of trouble), and the planned testing with possible land tests in FY93 (from financial carryover from FY92) and anticipated readiness for shipboard tests by around Leg 155. He commented on the database system bidding process. He described the recent purchase of natural gamma detector for MST upgrade to be installed by Leg 150 (one of our priority items for non-engineering needs wishlist in S92) and the installation of a magnetic susceptibility/anisotropy system in the paleomagnetics laboratory. As of September 1992, ODP has received a renewal for 10 years, with a review after 5 years. Most non-U.S. participants have or are now signing on for approximately this interval.

In response to questions, Firth discussed the status of biostratigraphy software. The panel made the following recommendation by consensus:

The currently available biostratigraphy range chart software on the JOIDES Resolution is outdated and cumbersome. Shipboard biostratigraphers must spend an inordinate amount of time filling out paper forms and

transcribing data; as a result, there have been some near disasters in production of range charts. OHP members strongly support the development and installation of software for range chart production. We recommend that the software has the following capabilities: (1) that it be Macintosh-based in light of the large proportion of such computing equipment on the ship and in the paleontology lab, and (2) that it can interface with Unix-based software in view of anticipated future developments in the shipboard computing environment.

h. ECOD Workshop

For panel information, Eystein Jansen reported on the Ocean History Group discussions at the May 1992 ECOD workshop, with a report due at the end of October. The workshop had the purposes of getting ESF member country scientists together and of generating new drilling proposals.

4. REVIEWS OF NEW PROPOSALS

a. Procedures. Discussion centered on several points relative to proposal reviewing. Panel members are selected and valued for their scientific expertise, and care is taken to ensure that proponents do not influence reviewing and ranking procedures. Consistent with past panel practice, past PCOM advice, and with PCOM practice, proponents were allowed to remain in the room for discussion of a proposal, and were allowed to respond to questions and requests for clarifications. Proponents were not allowed to lobby for a proposal; in any ranking procedure, proponents were not allowed to vote for their own proposal, nor to eliminate any other proposal from panel consideration.

Proposals are the documents from which the drilling program is constructed, and the goal of reviews is to provide useful feedback to the proponents in this process. Proposals are evaluated with regard to their scientific maturity and their consistency with White Paper, COSOD, and Long Range Plan themes. Reviews reflect the collective opinion of the panel, as summarized by the assigned watchdogs, and watchdogs are encouraged to contact proponents as necessary.

b. Summary of reviews. We then reviewed the thirty-three new submissions, with panel views summarized in written reviews (circulated to all panel members, as well as submitted to the JOIDES office). Mediterranean proposals (323-Rev2, 330-Rev, 391-Rev, 418) were discussed sequentially, given the number of these presented and their potential relatedness. PCOM declined to form a Caribbean-DPG, so Caribbean proposals (384-Rev2, 403-Rev2, 415-Rev) were also discussed sequentially, with attention paid to identifying which proposals/which aspects are best addressing OHP interests in this region. The reviews and rankings reflect this. Although not formally discussed at this meeting, it was noted for the Caribbean discussion that Hine is a proponent on proposal 408 for drilling on the Northern Nicaragua Rise.

Proposals are listed by ranking, with OHP watchdogs listed for the ones within our thematic interests. Proponents who were present for the discussion of a proposal are also noted in this list.

No.	Key Title	OHP Watchdogs	Proponents present
Ranking — Addresses high priority objectives of this panel			
079-Rev	The Mesozoic Somali Basin: Tethys and the birth of the Indian Ocean	Herbert Hine Pratt	Channell Jenkyns
354-Add	Neogene history of the Benguela Current and Angola/Namibia upwelling system	Barron Raymo Vincent	Wefer
386-Rev2	California margin drilling: Neogene paleoceanography of the California Current, coastal upwelling, and deformation of the Gorda "plate"	Herbert Raymo Wefer	Barron
Ranking — Addresses high-priority objectives, but with deficiencies, as noted			
338-Add	Marion Plateau sea level	Hine Weaver	
347-Add	Late Cenozoic paleoceanography, South Equatorial Atlantic	Backman Barron Vincent	Wefer
391-Rev	The formation of sapropels in the Mediterranean Sea--Testing models of black shale formation in a Late Cenozoic ocean by scientific ocean drilling	Bralower Pratt Zachos	
415-Rev	Caribbean Ocean history and the Cretaceous-Tertiary boundary impact event	Bralower Herbert Zachos	
416	Glacial history of the High European Arctic: Drill sites on the Svalbard margin	Barron Backman Wefer	
418	A biomagnetostratigraphic section representing a marine Miocene mid-latitude environment: Reoccupation of DSDP Site 372 (Menorca Rise, Western Mediterranean)	Channell Okada Weaver	

(continued)

Ranking --- Addresses high-priority objectives, but with deficiencies, as noted

422	A site proposal for ocean drilling in Santa Monica Basin, California borderland province	Backman Raymo Wefer

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Ranking --- Is of secondary interest to this panel if it is of high priority to some other panel

323-Rev2	Alboran Sea evolution	Channell Raymo	
330-Rev	Mediterranean Ridge (Phase I)	Backman	
380-Rev3	VICAP-MAP	Carter Hine Loutit Vincent	Weaver
403-Rev2	K/T boundary, Gulf of Mexico	Bralower Herbert Zachos	
405-Rev	Amazon Fan	Hine Okada	

Ranking --- Proposal objectives are not within panel mandate

086-Rev2 Red Sea
300-Rev Return to Site 735
334-Rev2 Galicia S reflector
346-Rev3 Eastern equatorial Atlantic transform
361-Rev2 TAG hydrothermal system
365-Add2 North Atlantic geothermal measurements
369-Rev2 MARK lithosphere
376-Rev2 Vema Fracture Zone
384-Rev2 Caribbean crust
400-Add Costa Rica accretionary wedge
414-Rev Northern Barbados Ridge
417 Okhotsk gas hydrate
419 Azores-Gibraltar plates
420 Oceanic crust evolution
421 Volcano Trench
423 Blake Ridge gas hydrate
424 "Cork" Hole 395A
425 MAR at 15 37'N

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5. CEARA RISE SITE SURVEY CRUISE RESULTS Bill Curry

Proposal 388/388-Add for Ceara Rise drilling with a focus on a Neogene depth transect was the highest-ranked proposal in OHP's spring 1992 global ranking, and was highly ranked the previous spring as well. A thirty-three day NSF-funded site survey cruise on the Maurice Ewing was scheduled for August-September 1992, with one of the explicit aims being to evaluate the prospects for pre-Neogene drilling targets on the Ceara Rise as well defining the sites for the Neogene objectives. Based on the high OHP global ranking for this proposal and the scheduled cruise for completing site survey requirements, it was anticipated that this program would appear in the fall prospectus for FY94 drilling. With the approval of the PCOM chair and based on the circumstances of the timing of the cruise, the Fall 1992 OHP meeting, and the annual PCOM meeting, Bill Curry, a proposal proponent and co-chief on the site survey cruise, was invited to present and discuss the results of the cruise. It was noted for this discussion that Backman, the new ESF representative to OHP, is also a proponent on 388/388-Add and was a participant on the site survey cruise.

Curry first presented a review of existing information about Ceara Rise. This included an old seismic line, with relatively poor resolution, on which the drilling of DSDP Site 354 was based. A re-analyzed biostratigraphy of spot-cored Site 354 was shown, which included a recognition of the Late Miocene unconformity widespread in the Atlantic, and a well-defined hiatus lower in the section as well.

Curry reviewed the cruise track and objectives. It was noted that the cruise also included JOI/USSAC-funded time for Amazon Fan site survey. The site survey cruise, the first for Ceara Rise since 1972, included hydrosweep (with an average swath width of 7000 m), SCS (actually 4 channels on the Ewing), gravity and magnetics surveys, piston coring to supplement the extensive set of existing piston cores, and 10 successful sonobuoy experiments, resulting in good velocity data and calibration of two-way travel time vs. sediment thickness. The data collected are all well-tied in to DSDP Site 354, and the hydrosweep data collected represents 40-70% coverage of the bathymetry in the target area of the northern Ceara Rise. Sedimentation rate estimates, based on biostratigraphic markers in the piston cores, indicated spatial variability in these rates, which can be interpreted to reflect the influence of the Amazon Fan. The seismic data indicate a strong, flat-lying (basement?) reflector everywhere shallow on the plateau, overlain by about 1300 m of sediment. The seismic units are identifiable and well-correlated throughout. No erosional exposures of pre-Neogene sequences, i.e., potential drilling targets for less-altered older sequences, were identified.

Curry presented a revised drilling strategy (55-76 days) based on these data and on previous panel reviews. Seven sites were selected, with an anticipated focus on five of these. Sites were chosen to avoid any influence of down slope reworking by avoiding sections with apparent increases in greater water depths. The five sites span approximately 3000-4400 m, with a spacing of about 300 m water depth difference. Depths for the alternate sites are 2800 m and 3800 m. The present day AABW/NADW water mass boundary in this region occurs over 300 m depth range, with a sharp lysocline. The shallowest site was targeted to obtain an "undissolved" record, and the deepest, at the deepest reasonable point for obtaining a useful record. In response to

questions, Curry noted that the post-Late Miocene is represented by 200-250 m sediment everywhere on CR, and that in general, the Neogene and Paleogene thin together with increasing water depth. He also noted, based on Site 354 results, that magnetic intensities are anticipated to be low below 250-300 mbsf. The anticipated drilling strategy is based on drilling to basement at the shallowest site, and using these results to focus strategy among alternate plans for the rest of the leg (balance of Neogene vs. pre-Neogene objectives). The panel then discussed various questions and concerns, and offered suggestions about drilling objectives, strategies, and alternatives.

The proponents were commended for their responsiveness to prior reviews, and congratulated on the outstanding results of the site survey cruise. A more formal version of the revised drilling strategy, indicating possible alternatives, will be produced prior to the PCOM meeting. Wefer and Zachos offered to be available to give their reactions to these plans to the OHP chair.

6. RANKING OF ATLANTIC AND EASTERN PACIFIC PROSPECTUS LEGS FOR FY94 DRILLING

The majority of the programs in the AEPP had been submitted in revised form and reviewed at this meeting. Ceara Rise drilling (388/388-Add) had also been discussed. Watchdogs reviewed the objectives of secondary interest to OHP in the NARM-DPG legs. Of the programs in the prospectus, only one was of high priority to OHP (388/388-Add, Ceara Rise). A second, the Mediterranean sapropel proposal (391-Rev), was of high OHP interest, but presently had major, serious deficiencies (see discussion below). Five programs were of secondary interest to OHP, if of high interest to another panel: 323-Rev 2, Alboran Sea; 380-Rev3, with the VICAP and MAP legs considered separately; 405-Rev, Amazon Fan; and Non-volcanic Leg II of the NARM-DPG. Five programs were outside OHP's mandate and therefore of no interest: 346-Rev3, Eastern Equatorial Atlantic transform; 361-Rev2, TAG hydrothermal system; 369-Rev2, MARK lithosphere; 414-Rev, Northern Barbados Ridge; and Volcanic Leg II of the NARM-DPG. We did not choose to add any programs not already in the prospectus to our ranking.

Before ranking proceeded, the panel held a discussion about its substantial concerns with regard to 391-Rev, Mediterranean sapropels. The proposal objectives fall partially within our thematic mandate, but, as detailed in our review of the current submission, this proposal is viewed as immature both scientifically and in its site selection, justification, and readiness. There was also concern expressed that this revised version did little to address points raised along these lines in earlier reviews of 391 and 391-Add.

There was a clear panel consensus that this program did **not** belong in the prospectus for FY94 drilling. Given this and given the lack of other programs of high thematic interest in the prospectus, there was a great deal of discomfort about having to rank this proposal at all. Given the choice, we would have excluded this from ranking. We have other highly regarded proposals viewed as more scientifically mature and of higher thematic priority, viewed by us of equal or greater drilling readiness, which did not appear in the prospectus. Had any of these been included, panel discussion indicated that they would clearly rank more highly than 391-Rev.

The procedure used was as follows. After excluding programs outside our mandate, this left 7 programs to be ranked. Fifteen panel members were present for voting. One panel member was a proponent on one program: Backman on 388/388-Add. One panel member was a proponent on two programs: Weaver on 380-Rev3 with separate rankings for VICAP and MAP legs. The thirteen panel members who were <u>not</u> proponents on any AEPP programs ranked these from 6 points for the highest priority to 0 points for the lowest priority. The panel member who was a proponent on one program ranked all other programs from 5 points for the highest priority to 0 points for the lowest. The panel member who was a proponent on two programs ranked all other programs from 4 points to 0 points. Proponents could not vote for their own programs. Panel members submitted signed voting sheets, to be retained confidentially by the panel chair. Points awarded to each program were totaled.

Listed below for each ranked program in final order are: the number of eligible voters, the maximum available points if all eligible voters ranked that program as highest priority, the total number of points awarded to that program in voting, and the fraction of total available points awarded (total points awarded/total points possible). This is the most accurate representation of ranking results, with the highest possible score of 1.00 and the lowest 0.

#	Proposal/key title	No. voting	Total points possible	Total points awarded	**Fraction awarded/ available points**
1	388/388-Add Ceara Rise	14	82	82	**1.00**
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361-Rev2 TAG hydrothermal system
369-Rev2 MARK lithosphere
414-Rev Northern Barbados Ridge
NARM-DPG Volcanic Leg II

There are several points to notice about these results. Two results are particularly notable. (1) Of those eligible to vote, 388/388-Add, Ceara Rise, was the **unanimous first choice** of the panel, and is clearly **our highest priority** of the AEPP programs. (2) There was little interest in the VICAP leg of 380-Rev3, with it being lowest or second-to-lowest priority for the vast majority of panel members voting.

Of the remaining programs, each was of second highest priority for at least two panel members, and, simultaneously, of lowest priority for at least one panel member (except for 323-Rev3, Alboran Sea, which only went as low as second lowest priority, but for four panel members). The fraction of available points awarded for the programs ranked 2-6 are very close, with 2, 3, and 4 quite close, and slightly separated from barely distinguishable 5 and 6 ranked.

Panel consensus was also clear with respect to the ranking of 391-Rev. **The number two ranking of this program reflects the lack of other programs of strong OHP interest in the AEPP, and does not reflect a panel endorsement of scheduling this leg based on the current proposal for our thematic interests.** We anticipate a strong array of scientifically mature, drilling ready programs in the FY95 prospectus, and await the opportunity to rank programs we can fully endorse as appropriately ready for the drill ship.

7. REVIEWS/RESPONSES/EVALUATIONS

a. High-temperature down-hole sampling device (7/24/92 PCOM chair letter)

Panels were asked to discuss the Edmond document concerning development of a high-temperature down-hole sampling device. This is clearly a scientifically interesting and significant development, with an asset being that it will be designed to be useful with the DCS. However, the scientific objectives and applications are outside the OHP mandate, and we leave these matters in the hands of the panels more involved.

b. ODP, especially OHP, public visibility (8/18/92 PCOM chair letter)

We discussed program visibility from three perspectives: (1) links to other global geoscience initiatives, (2) visibility within the scientific community, and (3) visibility to the general public.

(1) LINKS TO OTHER GLOBAL GEOSCIENCE INITIATIVES. We noted that there are existing liaisons with the Nansen Arctic Drilling Program, with IGBP/GSGP, and with JGOFS. In addition, there are panel members who participate in one or more of these related programs; they are encouraged to highlight this dual participation in their activities.

(2) VISIBILITY WITHIN THE SCIENTIFIC COMMUNITY. It was noted that the ODP Lecture Series, with its ability to bring this material to a wide audience, is viewed as very successful in doing so and a genuine benefit to the entire community. We (again) discussed the thorny issue of publication policy and the view of the Scientific Results volume; we noted the benefits of the more liberal publication policy introduced, and encourage shipboard scientists to take advantage of the opportunities presented. Publication of ship tracks, proposal deadlines, information and statistics about how to apply to be a shipboard scientist, etc., in venues other than JOIDES Journal were strongly encouraged, with EOS and Geology being specifically mentioned. JJ is probably most available/most read by those already involved in the drilling community, and these other routes reach a much broader audience.

Paleoceanographers involved in the drilling program also typically pursue other types of research as well; these links serve well in publicizing ODP and its scientific achievements. A summary article for Leg 138, Eastern Equatorial Pacific, was published in EOS; chief scientists should be reminded of the impact and importance of such opportunities. Continuing coordination with journals to encourage the publication of timely articles on ODP achievements was favored.

The Fourth International Conference on Paleoceanography was held the week preceding this meeting in Kiel, Germany (21-25 September 1992). ODP paleoceanographic legs in all stages, from planning to immediate post cruise to scientific maturity of shore-based science, were well-represented in invited talks and poster sessions at this meeting, and served to communicate these results and opportunities to a much broader audience. Invited talks included: a talk by Ken Miller describing the planning and justification for Leg 150 (New Jersey, Mid-Atlantic Transect), a synthesis of Leg 133 (NE Australia) results by Judy McKenzie, a summary of shipboard results for Leg 144 (Atolls and Guyots, Leg II) by Isabela Premoli-Silva, a discussion of Leg 151 (NAAG Leg I) by Eystein Jansen, a synthesis of insights from Leg 129 (Old Pacific) by James Ogg, a discussion of Neogene carbonate records from Leg 130 (Ontong-Java Plateau) by Wolf Berger, presentation of P accumulation rates for sites from Leg 130 and Leg 138 by Margaret Delaney, and a discussion of high latitude ODP isotope records by David Hodell. ODP results were featured in many posters. The Leg 138 post-cruise meeting was held after the meeting, with the results presented in a poster session as part of the meeting for discussion by the shipboard scientists and the general paleoceanographic community. A session at the December AGU meeting will focus on high-resolution paleoceanographic results from the equatorial Pacific legs (130 and 138). The consensus was that the paleoceanographic community (i.e., those within the OHP mandate) are actively communicating scientific results and opportunities to the broader scientific community.

(3) VISIBILITY TO THE GENERAL PUBLIC. We discussed the ODP/TAMU role in this, and many on the panel felt that having videos available (for use in classes, etc.) was desirable. German scientists are encouraged to write Scientific American-type articles to aid in public understanding of the program. ODP/TAMU could take an active role in encouraging co-chiefs to pursue such articles in places like National Geographic, Smithsonian, Natural History, Discover, and Earth.

c. Core repositories (8/18/92 PCOM chair letter)

(1) SHOULD CORES BE REFRIGERATED? For the majority of paleoceanographic objectives, refrigeration of cores is clearly of benefit. Panel consensus was clear that the core collection should continue to be refrigerated. For certain organic geochemical techniques applicable to specific legs/specific scientific objectives (and probably more appropriately in SGPP's purview), other methods of preservation (e.g., cores freeze-dried, stored dry at room temperature under nitrogen or low vacuum) may be most appropriate. However, this is obviously not a solution for the core collection as a whole, nor for many applications where preservation of the mechanical integrity and sedimentary structure of the core is critical.

(2) SHOULD CORES BE MOVED? No, definitely not! There were no advantages and many disadvantages perceived, and no support at all for moving cores under any circumstance.

(3) SHOULD ADDITIONAL REPOSITORIES BE ESTABLISHED? This was obviously a thorny issue for the panel, with both scientific and political aspects which were not always easy to separate. One view, probably that of the panel majority, felt that the ideal arrangement would be one central facility, and that the three existing repositories represented as large a compromise from the ideal as acceptable. In particular, it was emphasized that the existing core repositories have a consistent philosophy for core handling, with long experience and a demonstrated successful track record. Since core quality and integrity are key issues, there was concern that additional, new facilities may not achieve this high standard. For research focused on thematically-based, time-interval-type questions (e.g., a specific boundary or specific time interval), additional repositories mean more work, beyond that imposed by the current system, for the scientist to be able to examine the cores, a requirement for many people.

Others on the panel felt that, although a small number of repositories was obviously ideal, three was not a magic number; why not four or five? Clearly, some of the European partners are strongly interested in having core repositories, and this view held that this would not compromise core handling or core quality. Some other more indirect, scientific benefits might accrue as well: increased visitation of North American scientists to European institutions during repository visits and so increased interactions, increased access (real or perceived) of the European community to cores, and increased access of the European community to core repository for teaching purposes. There was clearly no support for the idea of repositories in Japan or Australia, for example.

In the course of this discussion, it became clear that it would be ideal to have the repositories equipped with the equivalent of the shipboard measurement systems to measure sections with new technologies, or to remeasure sections for which shipboard measurements were not available or of poor quality. This would obviously be easier to achieve with fewer core repositories.

d. High-temperature borehole instrumentation (HTBI) test (8/18/92 PCOM chair letter)

This was a request for a response to a request to test a tool at Hole 504B that has not yet met third-party tool guidelines. Although not within OHP mandate, it seems reasonable that the existing guidelines should be followed.

e. Offset(-Section)-Drilling Working Group Report (8/18/92 PCOM chair letter)

This discusses an intriguing approach to obtaining more information about the oceanic crust with existing technology. This does not lie within the OHP mandate and we make no recommendation about the report or the working group.

f. Sea Level Working Group Report (8/18/92 PCOM chair letter)

After brief review of the history of the role of sea level objectives in the OHP mandate, Bob Carter reviewed the SL-WG report. He noted that this report is the logical supplement to the Watkins El Paso Report. He discussed the global sea level model, the sequence stratigraphic model, and the community view of each of these. Implicit in the report is that a well-phrased test (i.e., a well-focused proposal for drilling) must emphasize one or the other of these. The stratigraphic response to sea level change (i.e., the sequence stratigraphic model), which falls within SGPP mandate, is thought by many to be the first issue to be addressed. Tests of synchroneity and amplitude of sea level change (i.e., of the global sea level model) fall within both OHP and SGPP mandates. We also discussed Miall's recent paper (Exxon global cycle chart: An event for every occasion? Geology **20**, 787-790, 1992) and the difficulty of constructing such tests. Sea level studies are also a bridge, both in scientific objectives and between scientific communities, from the continental margin to the deep ocean. Panel discussion then proceeded on various issues relating to sea level and OHP's role. It is clear that results from Legs 143 and 144 (Atolls and Guyots) and Leg 150 (New Jersey margin) will be critical in defining and evaluating the potential of these different approaches. The objectives of most interest to OHP (timing and amplitude of sea level changes) need to be developed and focused beyond the presentation in the report.

We then turned to a recommendations about the report and the working group. **By panel consensus, we recommend that the SL-WG report be accepted and that the SL-WG be disbanded. There was no support for a separate Sea Level Program, whose details are not entirely clear, in the advisory structure. There was also concern about the report's specification of a requirement of one leg/year for sea level objectives, when evaluation of existing and soon-to-be drilled legs with sea level objectives is needed, in the absence of highly ranked proposals, and given the other objectives of thematic interest. Acceptance of the report should not be taken as endorsement of or commitment to this level of drilling effort. While the efforts of the working group to identify watchdogs and proponents for specific targets are well-received, wider solicitation to the scientific community for proponents and proposals should be made, most appropriately by the JOIDES office. This target list of scientists should not be viewed as an exhaustive or an exclusive one by virtue of the report's acceptance. Consistent with PCOM's request, three panel members were named to serve as watchdogs for sea level objectives of OHP interest: Carter, Hine, and Raymo.**

g. Watchdogs for other multi-leg programs (8/18/92 PCOM chair letter)

We noted that the first leg of the North Atlantic-Arctic Gateways Program (Leg 151) will conclude September 1993. PCOM has declined to form a second DPG to evaluate the results of Leg 151, the existing plan for Leg II of this program, and any new proposals in the system since the conclusion of the first DPG. Thus, this task will fall to OHP at its Fall 1993 meeting for defining the program for consideration for FY95 drilling. Gerold Wefer is the watchdog for this topic.

h. Engineering for Deep Sea Drilling for Scientific Purposes Report (9/92 letter)

Several panel members, with interests in deep drilling and serving as watchdogs for 079-Rev, read this 1980 report. The report was clearly out-of-date, and did not clarify the technical challenges currently existing in scheduling drilling such as the Somali Basin deep hole.

8. OHP OBJECTIVES/OHP WHITE PAPER REVISIONS

It was thought that the wide variety of OHP interests are well-represented by existing or anticipated proposals, and there was no current need to solicit any. Panel members had reviewed the existing OHP White Paper, and, with compliments to the scientific vision of former chair Larry Mayer, found it to be in generally good shape. Minor revisions and expansions were identified. Carter and Hine will recast a sea level section appropriate for OHP interests. Jansen will contribute a section on ultra-high resolution (ice core time scale) paleoceanography. Raymo will contribute a section on intermediate water/oceanic water mass evolution. Dick Norris (WHOI) has already sent a section on microfossil evolution. Bralower, Herbert, Pratt, and Zachos agreed to revise the pre-Neogene section in light of the increasing ability to carry out high resolution work in these time intervals. Contributions are due to the panel chair by the target date of **1 January**, so that a revised version can be circulated for the Spring meeting.

9. OTHER ITEMS

a. Items of concern for panel chairs' meeting

The comments and responses about proposal reviewing from the recent JOIDES Journal had been circulated to the panel. Several points about proposals arose: (1) addenda and revisions should be required to have a section which summarizes <u>what</u> has changed and how these changes respond to the points raised in earlier reviews, and (2) the ideal format for a proposal should be for it to approach drilling prospectus format as it approaches maturity, and proponents should be encouraged to consider the best of these as models.

b. DCS

There is panel concern about the progress of the DCS, and a desire for more information from the engineers. We intend to request a presentation by a ODP/TAMU engineer on the history, progress, and anticipated development of the DCS for the Spring 1993 meeting. The low recoveries for Legs 143 and 144 highlight the importance of sidewall coring devices in advance of DCS development.

By panel consensus, OHP strongly urges a land-based test of the DCS system in realistic lithologies representing those of interest to OHP (e.g., alternating hard and soft lithologies, vuggy limestones). Such a test under ideal conditions will be critical to evaluating the potential of DCS for shipboard recoveries of such material, and thus critical for obtaining continued OHP support for DCS development.

c. Discussion items for joint OHP/SGPP sessions, Spring 1993

These include: high-resolution correlation tools and techniques (Leg 138 as an example), DCS engineering report, proposals of mutual interest (Somali basin, upwelling regions, Mediterranean sapropels, others), discussion/clarification of thematic mandates, sample archiving requirements.

10. PANEL MEMBERSHIP

Two U.S. members are departing: Tom Loutit and Tim Bralower. We discussed possible replacements with sea level, sequence stratigraphy, paleoclimate and basin analysis expertise and with Mesozoic paleoceanography and nannofossil biostratigraphy and evolution expertise. We reached panel consensus on two nominees for one position, and, in keeping with allowed PCOM practice, a single industry nominee for the second position. These will be conveyed to the PCOM chair in separate correspondence. We also discussed the retirements anticipated for next year.

11. FUTURE MEETINGS

Spring 1993: 4-6 March 1993 in Santa Cruz, CA (joint with SGPP). Fall 1993: 6-8 October 1993, Bremen, Germany, hosted by G. Wefer.