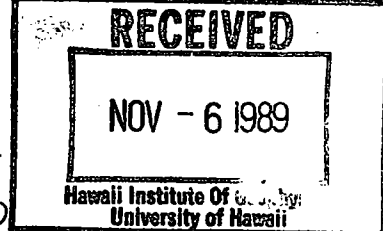


OHP October 24-26 1989: Executive Summary

89-470



1. OHP consider that if JOI are forging formal links with major global initiatives, it would be appropriate for the IGBP to be one of these. This could be raised at the IGBP Working Group on Past Global Change chaired by Hans Oeschger.
2. In order for the DPG's to report to PCOM through the thematic panels it is essential that thematic panel members receive copies of their reports (e.g. the CEPACDPG prospectus). An appropriate mechanism would be for the JOIDES Office to take responsibility for copying and distributing these. This mechanism will ensure that even if the thematic panel does not meet between the DPG and the PCOM meetings, at least the Thematic Panel Chairmen will be able to transmit panel reactions to PCOM should this prove necessary.
3. TAMU must be aware that for Leg 130 (Ontong Java) it is essential that the core orientation device is operational and in place for all APC holes, and that all precautions are taken to avoid impediments to its successful use such as the barrel magnetization problem that was identified on Leg 115. This will also be the case if the Eastern Equatorial Pacific Neogene Transect program is drilled.
4. In view of the importance of high-resolution physical properties data for achieving the objectives of some legs (including Leg 130 Ontong Java), and in view of the mistrust that is generated by the presence of a systematic offset between careful discrete sample bulk density measurements and high-calibre continuous GRAPE data, OHP requests the SMP chairman to provide clear guidelines as to the most appropriate way of using these two independent estimates in the context of detailed Mass Accumulation Rate reconstructions.
5. OHP recommends that the sampling strategy required to achieve the scientific objectives of a leg such as 130 should be properly planned and that the presence of a

statement of the sampling requirements and strategy within the cruise prospectus may be the appropriate means to ensure that a conflict between routine sampling directives and the needs of the shipboard scientific party does not either prejudice the achievements of the leg, or give rise to the drilling of needless extra holes or to petty subterfuges designed to circumvent the TAMU directives.

6. OHP unanimously selected the Eastern Equatorial Pacific Neogene Transect for drilling in FY 1991 from amongst the list given by PCOM. This leg is as highly regarded by OHP as it was by former SOHP and is based on one of the best-formulated proposals before the panel. OHP do not wish to discriminate among the remainder of the list since none of them addresses themes in the OHP mandate.
7. OHP discussed the relative merits of proposed sites OJP3 and OJP6 on Leg 130 and on balance favour drilling the deeper OJP3. In addition (a) OHP recommend that the chief scientists be permitted to reverse this choice if the material recovered at Site OJP4 suggests that this would be preferable; (b) in the event that unforeseen circumstances were to permit it (e.g. premature termination of the last Site) OHP would be happy to see both OJP3 and OJP6 drilled.
8. OHP emphasise that the upper part of shallow site OJP1 essentially duplicates DSDP586 and that the primary purpose of this site is to obtain greatly improved recovery of the very important Middle-Late Miocene and Early Miocene records revealed in a fragmentary and distorted form at DSDP289. Time should be devoted to double-XCB recovery of this part of the section rather than to needlessly replicating the Latest Neogene in order to maximise the amount of high-resolution Cenozoic record that can be recovered at the site.
9. Mix should immediately send Shackleton a copy of the survey cruise report relating to the Eastern Equatorial Pacific Neogene Transect.

OHP met in Giessen F.R. Germany from October 26th to 28th 1986, hosted by Ruediger Stein. Uncorrected minutes follow:

Present: OHP members Shackleton (chairman), Berger, Berrgren, Bralower, Davies, Delaney, Droxler, Jansen, Kent, Loutit, Mayer, Mix, Saito, Stein, Vincent, etc plus Brass (PCOM), Jenkyns (PCOM), McKenzie (SGPP), Smith (LithP), Sliter (CEPAC), and R. Moberley (PCOM chairman). An apology was received from Barron, unable to attend. After a welcome from Stein, corrected minutes were distributed. The chairman thanked Peggy Delaney for having done an excellent job in taking notes at the previous meeting.

Hugh Jenkyns reported on the last two PCOM meetings.

Of particular note: the manner in which legs will be selected given the move away from planning by circumnavigation; each spring PCOM meeting will examine the priority programs of each panel and on that basis plan an outline ship track. Each winter PCOM meeting will finalise a further fiscal year of actual drilling legs selected from the ones on that track.

A new publications policy allows more freedom to publish in the open literature while spelling out rather explicitly what can be published before the acceptance of material for the B volume: papers that have been agreed (content and authorship) either by the shipboard party aboard ship, or by the time of the post-cruise meeting. See ... for the new directives.

OHP assumes that TAMU are responsible for explaining this procedure to co-chiefs and shipboard scientists.

We were interested to hear of the new proposal whereby the cruise prospectus is written with a PCOM liaison present: Moberley emphasised that this person is selected by PCOM but is not necessarily a PCOM member; it can be a panel member or a proponent. The object is to ensure that the prospectus does reflect PCOM's intentions, since from that point on TAMU are responsible for ensuring that the cruise follows it. Although OHP felt that the appropriate thematic panel(s) should approve the prospectus it was appreciated that this may be impractical from the point of

view of timing.

WPDPG is disbanded.

JOI inc. is setting up formal links with certain global geoscience programs. Both Shackleton and Davies queried why IGBP was not included and OHP proposed that NJS should investigate the receptiveness at the level of the "past global changes" subset of IGBP.

Explicit PCOM instructions to panels (quote)

In reply to a question Moberley stated that if OHP feels (for example) that the APC recovery of the sediment at the location of a proposed lithosphere site were important, it would be desirable to produce a formal proposal.

PCOM specifically charged OHP to select between deeper sites OJP3 and OJP6.

In future PCOM would like a short CV for proposed new panel members.

NJS apologised to the panel for the fact that the minutes actually in the PCOM agenda book were retyped at HIG from TELEMAIL (not downloaded from TELEMAIL) and were abbreviated).

#### Sea Level Responsibility

NJS reported his concern at the shared responsibility for Sea Level, a major theme of the COSOD II report. The reality of frequent global eustatic sea-level changes is not properly established; this slows down attempts to verify that such variations occur during periods of Earth history when glaciation could not have been the mechanism (assuming there have been such times, which is also uncertain) and parallel attempts to provide alternative mechanisms. NJS argued that the problem is so important that it would be better for it to be clearly mandated to one panel and that panel given appropriate expertise to handle it. He requested such expertise at the Nov 1988 PCOM meeting, and when one of the names he proposed to PCOM was assigned to

SGPP he assumed that PCOM intended mandating that panel to handle the question. Others argued that the problem may have a better chance of being tackled if it is mandated to more than one panel. It was agreed that having fully aired the question it may be safe to give the present divided mandate a trial.

After McKenzie had listed the chief content of the SGPP white paper (Sediment Fluxes; Sea Level; Fluids; Metallogenesis; paleocean chemistry; technology) it was remarked that paleocean chemistry is also in the brief of both OHP and SGPP and that this could also be seen as rational.

#### Items to report

NJS welcomed R. Moberley's decision to attend one meeting of each thematic panel in order to promote understanding (especially with reference to the planning process).

The policy of supplying 50 offprints from ODP volumes free of charge is being reinstated.

T. Pyle has prepared a summary of the number of days spent doing useful work per leg and finds that the faster transit between sites has been the major improvement compared with the Glomar Challenger.

K. Moran (SMP Chair) had requested through Moberley that OHP should send a guest to their meeting to advise on possible changes in core description procedure. NJS proposed either Kent or Ruddiman (Ruddiman attended).

A meeting on Upwelling Research in Scientific Ocean Drilling is being organised by Colin Summerhayes and Kay Emeis for July 1990 in London (Colin Summerhayes, Director, IOS Deacon Laboratories, Brook Road, Godalming, Surrey GU8 5UB UK).

Davies, tentatively nominated SGPP liaison at our last meeting, had been unable to attend and Droxler had attended instead.

NJS reported that he had received a copy of a letter to PCOM chairman expressing concern at a TAMU memo issued to him as a chief scientist which stated that the Operations Manager, not the Chief Scientists, had responsibility at sea to assess how best to achieve the scientific objectives. Moberley reported that the offending paragraphs had been struck out of the draft document from which they were quoted. He did however point out that PCOM had realised that contractually TAMU had responsibility to carry out the objectives laid out in the Cruise prospectus approved by PCOM, yet at the same time PCOM realised that in practice they have not approved the cruise prospectus. This realization is behind the decision that PCOM should nominate a liaison to ensure that the prospectus does in fact reflect their intentions.

On a related matter Moberley stated that OHP should send a liaison to a DPG (eg CEPAC) to ensure that proposals that the DPG are authorized to include in their detailed planning, are correctly represented. Sliter pointed out that they had (on OHP advice) invited proponents to achieve this objective, a procedure that was at the time endorsed by OHP as being appropriate. However Moberley reiterated that a panel member should attend the next CEPACDPG November 16-17 to ensure that the planning that they perform on the basis of the newly acquired survey data properly reflects the interests of the panel. Mix (failing Mix, Mayer or possibly Pisiias since it is a one-proposal program so that there is no conflict of interest) should attend.

Moberley also reported that it is his intention in future that operational DPG's should meet in summer so that the intention of their reporting to PCOM via the thematic panels can be realised. It was reiterated that thematic panels must receive copies of DPG prospectuses if this system is to be operable, and that the JOIDES office rather than the DPG chairmen would best be responsible for doing this. Moberley undertook to ensure that the recent updates of the North Pacific and Bering Sea portions of the CEPAC prospectus are circulated to all OHP members.

NJS reported that the third International Paleoceanography Conference recently held in Cambridge had been judged very successful and that the next will be hosted by Thiede in Kiel in

1992 (spare abstracts books may still be available from Margaret Johnston, administrator, Department of Earth Sciences, Downing Street, Cambridge UK).

The Nansen Arctic Drilling organization has an international organizational framework with connections to ODP. For a recent report contact Torre Vorren.

Mix reported that the USAC meeting to promote interaction among members of the WOCE, GOFs and ODP communities had been very successful and that reports had appeared eg in the JOIDES JOURNAL.

#### East Pacific Neogene Planning

Mix reported on the results of a recent survey cruise for proposal 221/E which permits a cruise plan to be completed. All sites on both the 110 West and the 95 West transects were surveyed successfully and the proposed sites cored. NJS reminded the OHP that the original proposal had been very highly ranked because it was particularly well designed in terms of the present physical oceanography of the region, the well documented reflection of this physical situation in the underlying sediment, and the clearly formulated external changes (Milankovich forcing, evolution of major glacial episodes over the last few million years, closure of the ocean circulation between North and South America).

Kent emphasised that a WORKING ORIENTATION DEVICE (and demagnetized core barrels) is ESSENTIAL for all holes on this leg. NJS read a letter from Backman relevant to the objectives of this leg, highlighting the importance of high-resolution physical properties measurements (wet bulk density). Mayer responded that the GRAPE data is of good quality and Stein reported on recent detailed comparisons between GRAPE and discrete-sample measurements which suggest that although there is a calibration offset, the quality of the GRAPE data is excellent. NJS asked whether the origin of the offset is being investigated, since the fact that the numerical GRAPE data do not agree with the carefully made discrete measurements, tends to strongly

discourage people from trusting and making use of the GRAPE data.

It was emphasised that both this leg and the upcoming Ontong Java leg will lead to intense sampling pressure. On the one hand, OHP recommend that on such legs the sampling procedure should be carefully planned in advance in such a manner that those scientists intending detailed studies do receive samples representing a complete cover of the record at the Site taking advantage of overlapping Holes. On the other hand, TAMU should ensure that routine sampling (particularly whole-round sampling but also other low-frequency sampling) is focussed on sections of core that will not be required to make up these detailed suites. Such a sampling strategy will also aid in assessing how much of each hole should be triple-cored with the APC. Kent suggested that channel-sampling such as has occasionally been adopted for paleomagnetic studies might be appropriate. OHP were unclear whether or not this would optimise the use of the material; it should be considered. OHP reiterated that the regulations for sampling MUST be sufficiently flexible to ensure that they permit the objectives of the cruise to be achieved properly. It is highly inappropriate if it becomes necessary to propose that triple coring of a Site solely in order to circumvent TAMU regulations and equally it is inappropriate that sampling density required can only be achieved by subterfuge. The sampling plan should be communicated to TAMU at an early stage, which could be achieved if some statement of sampling requirements and strategy were included as a part of the cruise prospectus.

In response to PCOM request, OHP strongly endorsed the Eastern Equatorial Pacific Neogene Transect program based on proposal 221/E as their highest ranked of the far Eastern Pacific programs that the panel was asked to rank (i.e. Cascadia Accretionary Prism, Chile Triple Junction, Eastern Equatorial Pacific Neogene Transect, East Pacific Rise Bare Rock Drilling, Hydrothermal Processes at Sedimented Ridge Crests, Lower Crust at 504B). NJS proposed that it would be inappropriate to prioritise among the remainder since none addresses problems within the OHP mandate. Possible co-chiefs for such a leg were discussed and their names forwarded to PCOM chairman.



### Ontong Java Leg 130

Ontong Java will be Leg 130 (January-March 1990; Berger and Kroenke co-chiefs). In response to PCOM request the relative merits of OJP3 and OJP6 were discussed at length; good cases were made for both, and OHP felt that had there been more time to develop and discuss the proposal after survey, both would have been included. A majority favoured the deeper OJP3 with the proviso that the co-chiefs should be free to alter this decision in the light of their findings at the next-shallower site OJP4. If unforeseen circumstances force OJP5 to be abandoned with time spare it might be valuable to return and core OJP6.

Concern was expressed at the manner in which basement objectives not highly ranked by LITHP (Dec 1987: 5th priority, thereafter not ranked) had been scheduled to the detriment of highly-ranked OHP objectives. Of particular concern is the loss of the depth-transect in the Mesozoic which had potential to shed considerable light on the Pacific Ocean at the time of the mid-Cretaceous "Ocean Anoxic Events"; Stein expressed the view that these sites had been even more promising than those on Shatsky Rise for the understanding of that problem. This would have required that one of OJP3 and OJP6 was drilled to the base of the sedimentary section rather than OJP4 (3400m water depth), which is too close in water depth to OJP5 at 2600m.

The drilling strategy for OJP1 was discussed. It was pointed out that the APC portion of this site more-or-less duplicates the section double-APC recovered at Site 586 and is not the prime objective. On the other hand the lower part of the section provides the opportunity to exploit the XCB to recover the remarkably important and exciting events observed by Woodruff and Savin at the base of the Late Miocene in Site 289, which are interpreted as reflecting major glacial-interglacial cycles on Antarctica. In addition the Milankovich-scale fluctuations documented by Shackleton in one relatively undisturbed core in the Lower Miocene in rotary-drilled Site 289 should be accessible. Any time accruing from quicker completion of OJP 4,3 and 2 should be used to double-XCB this part of the section so as to optimise the possibility of compiling long truly complete

sections suitable for detailed work through the whole Miocene, in preference to repeating the upper part of the section.

The issue of the sampling strategy for this leg is similar to that discussed for the Eastern Equatorial Pacific Transect.

### Engineering leg 132

Sliter reported on plans for leg 132 (Engineering 2). This leg will test the new Diamond Coring System in three scientific applications (Bonins, Shatsky, and MIT Guyot), of which the last two will be of OHP interest. Sliter was involved in site selection for Shatsky while the MIT Guyot site is from proposal 203. OHP would like a reliable report on this cruise at their late 1990 meeting since it will have a critical influence on the viability of several important proposals. Possibly one of the scientists from Leg 132 can be invited to part of our meeting.

### Proposal Reviews

OHP embarked on the reviewing of proposals numbered 321 onwards together with a few revisions affecting earlier submissions. Several have no OHP objectives, or have some side-objectives within the OHP mandate but which OHP consider will not much enhance the chance of their being tackled: 321; 322; 324; 325; 328; 330; 331; 333; 334; 342; 343; 344; 346 (OHP are of the opinion that the paleoceanographic objectives probably weaken this proposal and might profitably be removed); 349. For the remainder there was significant discussion.

At the end of the meeting the proposals discussed were categorised according to the theme addressed, and then roughly prioritized on the basis of their degree of maturity and plausibility. It was agreed that those in the lowest priority ranking would probably not be put forward at the end of the next meeting and that attention should be given to optimising the consideration given to the remainder so that they can be prioritized in the manner recommended by PCOM. At least the following proposals or programs will be reconsidered at the next meeting: 203, 271, 305, 320, 326, 329, 335, 336, 337, 338, 347, 348 together with the North Pacific Neogene, Bering Sea and Deep

Stratigraphic Tests (Somali Hole) programs. Members were asked to contact the JOIDES Office in Hawaii to request copies of any of these proposals that they do not already have.

#### Panel Membership

NJS thanked retiring members Larry Mayer (much appreciated former chairman) and Andre Droxler for their service to the Panel and the Ocean Drilling Program. Several names were discussed both in relation to the areas covered by the retiring members and to and other areas (siliceous biostratigraphers; Paleogene paleoceanography; high Southern latitude problems) and OHP selected three names for forwarding to PCOM.

#### Next Meeting

The constraints considered were the PCOM meeting (April 24th) and the end of Leg 130 with three OHP members on board (March 27th, Guam). We plan to meet in Hawaii at a location to be announced, March 29th-31st (unless a major change in ship schedule in the near future forces a change).