

SOHP ANNUAL REPORT

1987

A. MEETINGS: (2)

March - Menlo Park

Sept - Tokyo

SOHP applauds change to two meetings per year (with flexibility) and has adopted a regular schedule of meetings in Feb/March and mid-September.

B. MEMBERSHIP:

After next meeting there will be no original members of the panel left (except the poor Chairman). The addition of two extra members (we now have 16) has improved discipline balance though we still feel rather thinly spread. We urge PCOM to review 1/3 rotation policy; with two meetings/year we have at least three new members every other meeting – an extremely inefficient situation.

C. ENGINEERING DEVELOPMENTS:

Short term priorities:

1. continuous core recovery - particularly in:
 - a. mixed lithologies (will be critical for Kerguelan program)
 - b. sandy sediments
 - c. garssy sediments (pressure core barrel development)
2. improved core orientation for magnetic studies
3. improved pore fluid sampling
4. high-temperature sampling

Medium range priorities

1. continuous core logging:

The SOHP is extremely supportive of the downhole logging program and would like to see equivalent capabilities developed for recovered cores. In particular we would like to see a suite of laboratory tools capable of making continuous measurements of; density, porosity, (GRAPE) sonic velocity, attenuation, susceptibility, natural gamma-ray, resistivity, color, texture, grain size and mineralogy.

Long-term priorities:

1. ability to drill deep (2500-3000 m bsf) stable holes
2. ability to drill through salt

Downhole logging:

SOHP would like to see the following additional logging capabilities:

1. increased effort to log upper 100 m
2. downhole susceptibility measurements
3. formation micro scanner

Other technology issues:

1. recommend that dropping sinker bars directly after core barrel become standard practice – can save 30 minutes/core.

D. SAMPLING POLICY/STRATEGY:

1. more flexibility to co-chiefs and scientific party.
2. coordinated sampling and sample sharing is essential.
3. shipboard scientific party must retain highest priority – ‘Manifest sample requests’ should be approved only when there is little overlap with shipboard scientists interests.
4. Approved sample requests should be processed in a timely manner.
5. Review of sample request should include option to defer some sampling to core repository.
6. The SOHP is not happy with present policy of routine whole-round core sampling.
 - a. the best solution to sampling that needs whole-round sections is a dedicated
 - b. where an extra hole is not possible, SOHP recommends that need for whole-round sampling be justified on hole by hole basis and suggests that small working groups (ie. Physical Properties and Geochemistry) be established to review and/or initiate whole-round sampling requests.

E. SEDIMENT CLASSIFICATION SCHEME:

The SOHP carefully reviewed the proposed TAMU sediment classification scheme and sought the advice of outside experts. Numerous modifications were suggested and these have, for the most part, been incorporated into the scheme. The SOHP now approves the proposed scheme and applauds the efforts of Magzzulo et al. in putting together a comprehensive classification scheme that will greatly facilitate the comparison and interpretation of ODP results.

F. INDIAN OCEAN RECOMMENDATIONS: (only those discussed in 1987)

LEG 115: Carbonate Saturation Profile

1. that deepest 3 of 4 transect sites be drilled at shallower depths
2. that a core program consist of 4 transect sites plus MLD-2
3. if time permits, in order of priority, drill MLD-1, HPC at MP-1

LEG 122: Exmouth Plateau

1. strongly support recommendations of proponents though differ in priority of sites
SOHP priorities:
 1. EP-7
 2. EP-10A
 3. EP-12
 4. EP-6
2. recommend that all 4 sites be drilled
3. request that TAMU explore feasibility of using Port Hedland as port stop and thus save significant steaming.

LEG 123:

1. AAP1B plus basement drilling
2. EP9
3. if basement drilling is unsuccessful we recommend that AAP2 be drilled

G. WESTERN PACIFIC RECOMMENDATIONS: (in order of priority)

Objectives and justifications can be found in SOHP minutes:

Program	Sites
1. N.E. Australia Margin* (* see SOHP Special Document)	NEA 1,2,3,4,5,6,8,9,10,11,13,14
2. Japan Sea	JS-2 (double HPC)
3. South China Sea (Basin)	SCS5 - with addition of industry data
4. Sulu Sea	<u>Sulu 4</u> , Sulu 5
5. South China Sea Margin	SOHP has not prioritized yet
6. Bonins	Bonin 6

The SOHP was asked to examine Nankai Transect sites for a possible geohydrology program. The SOHP acknowledges the importance of fluid flow in problems of tectonism, diagenesis and global chemical fluxes and will seek opportunities to incorporate geohydrology objectives into legs and sites. We have not, however, received

any proposal for such work in the Nankai Transect region (we have received no Nankai proposals) and therefore cannot respond to this request.

H. CEPAC RECOMMENDATIONS:

The SOHP has developed prioritized themes for CEPAC drilling and reviewed 33 proposals in terms of their relevance to these themes. Thus far 17 proposals have been eliminated.

PROGRAMS:

1. Neogene Paleoenvironment:

High-resolution surface and bottom water Neogene history of the Pacific and its relationship to paleoclimate, sea level and tectonic events.

Relevant proposals: 221, 142, 195, 271, 199, 259, 87, 275

2. Mesozoic Paleoceanography:

Evolution of late Mesozoic through Paleogene paleoclimates in high and low latitudes

Relevant proposals: 202, 203, 260, 182, 195, 222, 199

3. Sea level: Atolls and Guyots (SLAG)

Drowning history, sea level and subsidence curves; early Cretaceous to Recent shallow water biota, diagenesis as a function of sea level history and volcanic episodicity

Relevant proposals 202, 260, 203

4. Anoxic Events

Time stratigraphy, distribution and significance of oceanic carbon in low latitude open ocean settings. Correlation with other Cretaceous anoxic events; role of black shales in global carbon cycles; importance of carbon preservation vs productivity; effect of volcanism and role of bathymetry and climate in developing upwelling.

Relevant proposals: 253, 275/257, 182

5. Old Pacific Crust

Our only chance to look at the Cretaceous open ocean

Relevant proposals: 285/261

6. Metallogenesis and Diagenesis

The role of pore fluid moment and reactions in ore formation, tectonism and global chemical fluxes; physical, chemical and mineralogical changes in sediment column as a function of time, temperature, depth and environment.

Relevant proposals: 233, 284/224, 275/257

7. Fans and Sedimentary Processes

Modern analogs to ancient deposits; test models for fan development; relationship of turbidites to tectonic and sea level history.

Relevant proposals: 250, 271, 175

I. ODP PLANNING PROCESS: (see Sept minutes for full discussion)

1. process must be thematically driven
2. planning structure must be hierarchial to insure it is thematically driven
3. planning must be long-term and global in perspective
4. program must be open to, and responsive to all proposals – but a strictly proposal-driven program makes coherent and efficeint long-term planning difficult. Instead we propose a thematically-driven ‘proposal-responsive’ system.
5. The mandate of SOHP is too broad. We propose several wroking groups for subdisciplines (organic chemistry, physical properties, etc.)