

Minutes ISSEP-ESSEP Joint Meeting

22 - 25 May 1999

University of Washington

Seattle, Washington

The joint meeting of the Science Steering and Evaluation Panels (SSEP) convened on the 22 of May by the panel chairs Ted Moore (ESSEP) and John Tarduno (ISSEP). Panel introductions included the introduction of the Performance Evaluation Panel (PEC) Chair Dr. Nori Nasu. Tom Loutit and Dan Karig of the PEC would join the panel meeting later. Logistical matters were presented by our Host Debbie Kelly, before beginning the official meeting reports. Due to the extremely heavy load of proposals we asked our reporting guests to keep the reports as brief as possible and to provide either written reports or reports ported to a web site. We also saved part of the reports till the end of the meeting.

JOIDES Office report

Jeff Schuffert and Warner Bruckman reported from the JOIDES Office. At the March SCICOM meeting the Long-term Observatory PPC presented their final report, which was accepted by SCICOM. The remaining PPGs were thanked for their helping to promote the increase in proposal submissions and other activities under the purview of their individual group. They were asked finish up their efforts and submit their final reports within the year. At the request of the SSEPs, SCICOM voted to establish two new PPGs - the Hydrology PPG and the Arctic PPG. The mandates of these two PPGs were presented and the SSEPs were requested to submit a list of potential members.

The creation of a new sub-committee of SCICOM - the IODP Planning Sub-Committee (IPSC) was announced. This committee will oversee the preparation for, and transition to, the post-2003 drilling program. Ted Moore is its Chair and committee members are Jamie Austin, Ako Taira, Jimmy Kinoshita, Detrick Eickelberg, Jorn Thiede, and Hans-Christian Larsen.

The SSEP Chairs asked that the JOIDES office be more strict in imposing the existing guidelines for proposal lengths and proposal submission deadlines. Eventual electronic submission of proposals and proposal figures may eventually reduce this problem, but we still foresee the need for some degree of effort by the chairs to xerox and mail at least parts of some proposals. We also need to speed the process of having TAMU check proponents drilling and logging time estimates. This particularly critical if the SSEPs are expected to evaluate leg lengths (mentioned also by Kate Moran in her report from JOI).

JOI Report

Kate Moran reported from the JOI office. She re-emphasized efforts to schedule leg lengths in order to accomplish the high priority science rather than be restricted to a fixed leg length of 56 days. The questions arose as to how the SSEPs could have input to this process. Clearly the SSEPs require both: 1) site prioritization by the proponents and 2) estimated drilling, coring and logging times verified by TAMU for each of the high priority sites. This is no small task and would probably only be

addressed for those proposals which had undergone mail review and perhaps only those proposals ranked highly by SCICOM.

Kate reported on the continued interest and participation of industry in the Manus Basin sites, and on the participation of a microbiological team on ODP Leg 185 (now at sea). We are continuing to make progress on gas hydrate sampling technology with the Pressure Coring System and with the HYACE system. Work on fabricating and testing the Advanced CORK system is also continuing at TAMU. A drill-in test will be carried out on ODP 190 leg in preparation for subsequent deployment on the follow-up leg.

Proposals for alternate platform drilling (shallow water, coral reef, and Arctic drilling) are now in the system and will follow the normal review procedure.

The US members of the SSEPs should consider nominating candidates to USSAC for replacing members on SCICOM and the SSEPs who are rotating off these panels after their normal three years of service.

NSF Report

Bruce Malfait presented a very brief report from NSF. US NSF now provides 65% of the ODP funding. Germany, the United Kingdom, and Japan are also full members of the program. France has a two thirds membership; The PacRim consortium has an 11/12 membership; and the European Science Consortium has a 97% membership. For FY 2000 NSF is planning to provide funds for 63% of ODP, assuming that there are seven partners in addition to NSF. NSF is planning the JOIDES Resolution will have some less than full use in FY 2003. IPSC is charged with planning the detailed transition between ODP and the post-2003 program.

Following the NSF report the SSEPs remained in joint session and began to review those proposals which had gone out for mail review and that were of interest to both SSEPs. These included

Fluid flow/convergent margin proposals:

478 Full13 Nankai East
505 Full12 Marianas Seamounts
517 Full□ Nankai West (ACORKS)

Climate and Tectonics proposals:

521 Full14 Indus Fan

Gas Hydrate proposals:

355 Full17 Peru Margin
546 Full□ Hydrate Ridge (Oregon)
553 Full□ Cascadia Margin

The SSEPs then split into separate groups for further discussions:

□

-
-

ESSEP Separate Meeting (For ISSEP, see separate section below)

-

The ESSEP discussed two Antarctic proposals that had already been sent to SCICOM for ranking but for which new data had been provided:

482 Add Wilkes Land. The promised new data in this area was, unfortunately not yet available because of mechanical problems with the ship scheduled to acquire the data. The panel awaits these new data before making a definitive re-evaluation, but is concerned that there appears to have been a shift in priority away from the rise sites, particularly that site which would target the oldest mapped sequence boundary in the rise sediments. It was unclear whether this was because of reinterpretations of the seismic data or a conscious shift in priority from rise to shelf holes. The ESSEP feels that it is important to target the older sequences on the rise as the highest priority, if at all possible.

489- Add Ross Sea

The Ross Sea addendum contained an interpretation of the seismic data in the region of the proposed sites along with isopach thickness maps of these sequences. These interpretations permitted the formulation of a hypothesis concerning the timing of the buildup of the West Antarctic Ice Sheet which can be tested by the proposed drilling program. The panel considers this a significant, positive addition to the overall science plan of the proposed program, and is encouraged by the increased probability of being able to date the development of this important step in the history of the Antarctica ice sheets. Our only criticism of the work is that their naming of the sequence boundaries and associated sequences is very confusing and totally non-standard. If they must number them, then at least give the sequences the same number as their upper bounding unconformity.

We received updates on two other proposals:

514-Add Timing ? Amplitude Olig/Mioc Sea Lev. Maldives. The panel looked at and discussed the additional data supplied by the proponents and look forward to a more complete mapping of the target sequences as requested by our review of this proposal in November 1998.

516 Add CORKS in 504B 896A off axis hydrology. The panel appreciate being informed that the proponents have obtained other funds to address the problems outlined in this pre-proposal.

-

ESSEP then discussed the remaining proposals that were to be grouped at this meeting and passed on to SCICOM at their August meeting:

- 477-Full12 Okhotsk and Bering Seas Plio-Pleist History
- 503 Full12 Cenoz. Galc. Hist, E. Antr IS, Mesoz Weddell B.
- 510-Full13 Coral Sea: Sea Level Magn. on Marion Plateau

523-Full Motion of Hawaiian Hotspot-Emperor Seamt
 534 Full Warm Cret Paleog, Shatsky Depth Trans
 549-Full Monsoon Var OMZ in N. Arabian Sea

Following extensive discussions of these proposals along with those that we had previously discussed with ISSEP, were grouped by secret ballot. This was taken to be a "straw" vote and the results from this initial vote were discussed before taking the final vote.

The results of the final grouping are listed below (X= consensus vote; V= even split vote):

□
 highest I impt II ISSEP prim III Rewrite IV

355-Full7 X
 477-Full12 X
 478 Full3(A) X (front)
 (B) X (Tokai)
 503 Full12 V V
 505-Full12 X
 510-Full13 X
 517 Full V V
 521 Full4 V V
 523-Full X
 534 Full V V
 546-Full X
 549-Full X
 553-Full X

□

After the final grouping of the proposals ESSEP considered the new and rewritten full proposals to determine which were ready to be sent out for mail review. The results of these deliberations are shown below. Some of the final decisions made concerning whether or not to seek a rewrite prior to the 1 October deadline were made in conjunction with ISSEP.

PROPOSAL	ACTION
513 Full12 The Scott Plat.-Indian Ocean Water Mass Hist.	rewrite
519-Full12 Last Deglacial sea-level rise, Tahiti	MAIL REV
520 Full Cont. Crust Form. in W. Pac. Kyushu-Palau	(ISSEP)
532 Full Cross Sec Ocean Crust/ Up Mant. Kane Megaml	533 Full (ISSEP)
537 Full12 Subduct Interface, Costa Rica Conv Mar	rewrite
(w/ISSEP)	
539-Full Blake Rdg Gas Hydrates	rewrite
(w/ISSEP)	
541-Full S. Westerlies in Chilean Fjord Sediments (=536)	rewrite
544-Full Costa Rica and Nicaragua Subduc Zone	rewrite
(w/ISSEP)	
545-Full Hydrology, Crustal Scale Properties	rewrite
(W/ISSEP)	
552-Full Drilling in the Bengal Fan	rewrite
(w/ISSEP)	
554-Full Gas Hydrates in Petrol Basin, G of Mex	rewrite
(w/ISSEP)	

555-Full Backstop hydrol deform mech, Crete [redacted] rewrite (w/ISSEP)
 559-Full [redacted] Early Cenozoic Climates, Walvis Ridge [redacted] MAIL REV
 560-Full Return to Site 1108, Low Angle Fault [redacted] (ISSEP)
 561-Full Carribean LIP [redacted] (ISSEP)
 562-Full Paleog/Cret Depth trans Newfoundlnd Ridge [redacted] rewrite
 566-Full Occur, Amt, Orig. Gas hydrate Nankai Trough [redacted] rewrite (w/ISSEP)
 [redacted]

The ESSEP then discussed the pre-proposals and recommended the following actions:

PROPOSAL [redacted] ACTION
 [redacted]

556-Pre Brazil-Falkland Confluence, Paleocn [redacted] Full Prop req
 557-Pre Norwegian Margin Gas Hydrate [redacted] Full Prop req
 563-Pre Climate Tectonics, Eur-American Gateway [redacted] resubmit with co-PI
 564-Pre Global Sea Level, New Jersey Margin [redacted] Full Prop req
 565-Pre Cool-water carb GAB fluid flow, Sea level [redacted] Full Prop req

The ESSEP then discussed the one APL received:

ANCILLARY PROGRAM LETTERS

APL 9 [redacted] CO2 sequestration in deep sea basalts

Although the ESSEP thought this was an interesting technical idea, we could see potential technical problems with the briefly proposed work that were not addressed in the letter. We also believe that this proposal is primarily technical in nature and that it might more appropriately be funded by DOE rather than NSF/ODP.

Hydrate proposals "in the mill"

As an aid to the SSEPs chairs in distinguishing the relative support received for the many gas hydrate proposals that were in the system now, the SSEPs were asked to answer the following questions (by secret ballot) regarding all the full and pre-proposals that we have discussed at this meeting:

- 355 Full 17 Peru Margin
- 546 Full [redacted] Hydrate Ridge (Oregon)
- 553 Full [redacted] Cascadia Margin
- 539-Full [redacted] Blake Rdg Gas Hydrates
- 554-Full [redacted] Gas Hydrates in Petrol Basin, G of Mex
- 557-Pre [redacted] Norwegian Margin Gas Hydrate
- 566-Full [redacted] Occur, Amt, Orig. Gas hydrate Nankai Trough

1. If you were only able to drill one of the above 7 full and pre-proposals before the end of ODP in 2003, which one of the above proposals would contribute the most to the planning of the post 2003 program?

ESSEP consensus answer: 546

Why?: Well conceived/written proposal with a wealth of background and ancillary data with monitoring component in a relatively simple active margin setting.

2. If you were only able to drill two of the above 7 full and pre-proposals before the end of ODP in 2003, which two of the above proposals would contribute the most to the planning of the post 2003 program?

ESSEP consensus answer: 546 and 554 (but more scatter in the choice of the second proposed drilling program, with 355, 539, and 553 receiving 2 - 3 votes each)

Why: (same as above) plus: very different hydrate type/environment.

ISSEP Separate Meeting

REVIEW OF NEW AND REVISED PROPOSALS:

ISSEP reviewed the following proposals and other proponent communications in Seattle:

Proposal Key Words Lead Proponent

451	Add3	Tonga	Tappin
512	Full	Core Complexes	Blackman
516	Add3	CORKS, Costa Rica	Davis
519	Full2	Tahiti Sea level	Camoin
520	Full13	Kyushu-Palau	Ohara
531	Pre2	Core Complexes	Snow
532	Full	Kane Megamullion	Tucholke
533	Full	Arctic	Backman
537	Full2	Protoseismic zone	von Huene
539	Full	Blake hydrates	Holbrook
544	Full	Costa Rica subduct.	Silver
545	Full	Juan de Fuca hydro.	Fisher
551	Pre2	Hess Deep Plutonic	Gillis
552	Full	Beng. Fan	France-Lanord
554	Full	Hydrates G. Mexico	Kennicut
555	Full	Crete collision	Kopf
557	Pre	Hydrates Norway	Andreassen
558	Pre	Tsunami Iberia	Zitellini
559	Full	Walvis Extreme Cl.	Zachos
560	Full	Return 1108	Taylor
561	Full	Caribbean LIP	Duncan
562	Full	J anomaly climate	Norris
563	Pre	Euramerica gateway	Smolka
564	Pre	New Jersey sea level	Miller
565	Pre	Australia bight	Feary

566 Full Hydrates Nankai Asi
ALP9 CO2 in basalt Goldberg

Of these, two proposals (520 and 560) were selected for external review. For all other proposals, revisions were requested. The Chair noted that this decision does not necessary delay any given proposal; proposals selected for external review can be considered by SCICOM during August 2000 at the earliest. By asking for revisions, the panel hopes to have the best possible proposals go on for external review after our Fall (Nov.) meeting.

A joint ISSEP-ESSEP review will be composed for the following proposals:

537 Full2 Protoseismic zone
539 Full Blake hydrates
544 Full Costa Rica subduct.
545 Full Juan de Fuca hydro.
552 Full Beng. Fan
554 Full Hydrates G. Mexico
555 Full Crete collision
557 Pre Hydrates Norway
566 Full Hydrates Nankai

ISSEP GROUPINGS

□

ISSEP grouped the externally reviewed proposals (group I, highest priority for meeting ISSEP goals in ODP Long Range Panel; group II, high priority; group III, primarily of interest to ESSEP but has some important ISSEP objectives; IV, revision/additional information required; V, declined).

ISSEP Proposal# Proposal Title

I-II 478-Full4 (Part A) Eastern Nankai Subd. Proc.
IV 478-Full4 (Part B) Eastern Nankai Subd. Proc.
I 505-Full13 Mariana Geochem. Mass Balance
IV 517-Full1 Nankai Trough CORKs
IV 521-Full4 Indus Fan Indian Monsoon
I 523-Full Hawaiian Hotspot-Emperor Seamnts.
I 525-Full Drilling Mantle Peridotite
III 534-Full Extreme Warmth/Shatsky Rise
I-II 535-Full12 Deep-Slow Spreading Ridge

II* 355-Full17 Gas Hydrates on Conv. Margins
I* 546-Full Drilling Hydrates on Hydrate Ridge
I* 553-Full Gas Hydr. on the Cascadia Margin

*Grouped by ISSEP using criteria different from those of the other proposals.

ISSEP recognizes that proposals 355, 546 and 553 principally address a subject that is not within the ISSEP mandate. However, the panels (ISSEP and ESSEP) have jointly reviewed these proposals, utilizing the full range of expertise represented on the panels. ISSEP grouped these proposals with regard to their importance in

addressing gas hydrate issues, in the spirit that additional input would be useful in future decisions.

However, ISSEP wishes to emphasize that because different criteria were used, the ISSEP groupings of the gas hydrate proposals should not be interpreted as an opinion on the relative merits of these proposals relative to other proposals addressing themes in the ISSEP mandate.

The panel also discussed the Tonga (451) proposal and reaffirmed its prior placement in Group I.

GAS HYDRATE ADVICE TO SCICOM FROM ISSEP

As an aid to the SSEPs chairs in distinguishing the relative support received for the many gas hydrate proposals that were in the system now, the SSEPs were asked to answer the following questions (by secret ballot) regarding all the full and pre-proposals that we have discussed at this meeting:

- 355 Full 17 Peru Margin
- 546 Full Hydrate Ridge (Oregon)
- 553 Full Cascadia Margin
- 539-Full Blake Rdg Gas Hydrates
- 554-Full Gas Hydrates in Petrol Basin, G of Mex
- 557-Pre Norwegian Margin Gas Hydrate
- 566-Full Occur, Amt, Orig. Gas hydrate Nankai Trough

1. If you were only able to drill one of the above 7 full and pre-proposals before the end of ODP in 2003, which one of the above proposals would contribute the most to the planning of the post 2003 program?

ISSEP consensus answer: 539

Why?: The best potential to address dynamics and have implications for global processes because of prior work and its simple setting.

2. If you were only able to drill two of the above 7 full and pre-proposals before the end of ODP in 2003, which two of the above proposals would contribute the most to the planning of the post 2003 program?

ISSEP consensus answer: 539 and 546 (with more variation)

Why: Proposal 546 is viewed as the best overall proposal in a different (active margin) environment that could be coupled with an effort to understand hydrates in a simple setting.

Joint Meeting

Following the discussion and grouping of submitted proposals and pre-proposals, The two SSEPs meet together again to hear brief reports from TAMU and from the Logging Group.

TAMU Report

The report from TAMU focused on the up-coming visit of the JOIDES Resolution to the yards and the work to be accomplished that impacts science operations. These additions and alterations include 1) the redesign of the core lab layout; 2) relocation of the microbiology containerized lab; and the building of the new microbiology and log analysis laboratories on the top of the present lab stack. other improvements to be accomplished during the yard visit will include a new sonar dome, improved station keeping ability, fume hood replacement, and replacement of the fantail winch.

Logging Report

New tools that the Logging Group is evaluating include Modular Formation Dynamics Tester (MDT) that take in situ pore fluid samples. This could be used in conjunction with logging while drilling, but needs to be developed for the narrow pipe used by ODP. Another tool, presently only available in the larger diameter configuration, is the CMR tool that measures porosity independent of lithology.

The meeting closed with thanks to our host, Debbie Kelly, and an admonition to the panel members to get the reviews of the proposals written before they leave.

□