

JOIDES SCIENCE COMMITTEE
26 August, 2002
Hosted by Ghent University at Het Pand, Ghent, Belgium

DRAFT MOTION AND CONSENSUS ITEMS

SCICOM Motion 02-02-01: SCICOM approves the meeting agenda.

Fryer moved, Rea seconded, all in favor.

SCICOM Motion 02-02-02: SCICOM approves the minutes of its March 2002 meeting in Yokohama.

Mayer moved, Sager seconded, 14 in favor, none opposed, 1 abstention (Brumsack).

SCICOM Consensus 02-02-03: SCICOM accepts the following SCIMP recommendations:

SCIMP recommendation 02-1-1 concerning the guidelines for digital seismic data submission

SCIMP recommendation 02-1-2 concerning the JANUS data model

SCIMP recommendation 02-1-3 concerning the petrologic results compiled by Kurnosov et al.

SCIMP recommendation 02-1-4 concerning metadata documentation in JANUS

SCIMP recommendation 02-1-5 concerning the FMS and digital line scan images

SCIMP recommendation 02-1-6 concerning conducting any future business only by email.

Preface to SCICOM Motion 02-2-4:

SCICOM applauds the proponents' vision and is excited by the opportunities presented by a test hole connected to a high-bandwidth, high-power cable. This represents a tremendous opportunity.

However, SCICOM believes that there are scientific and technical issues that need review and discussion prior to a commitment to establishing such a test site. These issues include:

- 1) Is there a community consensus on the optimal technical requirements for such a site? Issues include hole diameter, seafloor landing structure, hole depths, and casing strategy.
- 2) How do the environmental and geological characteristics limit or enhance the prospects for instrument tests that might be done in the hole? Issues include porosity, formation pressures, lithologies, hydrocarbon potential, and so on.
- 3) How is community access to the site to be managed? Issues include interactions with MBARI and management of permitting issues within the sanctuary.
- 4) Should planning for the drilling operations include time for logging of the formation to establish adequate baseline characterization?

SCICOM Motion 02-02-04: SCICOM strongly encourages the proponents of APL-22 to submit a pre-proposal to the IODP interim Science Advisory Structure for a test hole in Monterey Bay as part of the MARS facility.

Bloomer moved, Austin seconded, all in favor.

SCICOM Consensus 02-02-05: SCICOM thanks Jean-Pierre Henriët and Marc Faure of Ghent University for wonderful arrangements in hosting this meeting in such a quintessentially European location. SCICOM also sincerely thanks ECOD and ODP-France for financial co-support for the meeting arrangements.

ATTENDEES

SCICOM Members:

| | |
|---------------------|---|
| Jamie Austin | University of Texas, USA |
| Keir Becker (Chair) | RSMAS, University of Miami, USA |
| Sherm Bloomer | Department of Geosciences, Oregon State University, USA |
| Steve D'Hondt | Graduate School of Oceanography, University of Rhode Island, USA |
| Andrew Fisher | Dept. of Earth Sciences, University of California at Santa Cruz, USA |
| Patricia Fryer | School of Ocean and Earth Science and Technology, University of Hawaii, USA |
| Hans Brumsack* | Institut für Chemie und Biologie des Meeres, Germany |
| Teruaki Ishii | Ocean Research Institute, University of Tokyo, Japan |
| Jeroen Kenter | Dept. of Sedimentary Geology, Vrije University, Netherlands (ECOD) |
| Larry Mayer | Center for Coastal and Ocean Mapping, Univ. of New Hampshire, USA |
| Chris MacLeod | Cardiff, University UK |
| Delia Oppo** | Woods Hole Oceanographic Institution, USA |
| David Rea | Department of Geological Sciences, University of Michigan, USA |
| Matt Salisbury | Dalhousie University and Bedford Inst. of Oceanography, Canada (PacRim) |
| Will Sager | Texas A & M. University, USA |

*Alternate for Peter Herzig

**Alternate for Frederick Sarg

Associate Member Observers:

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| Philippe Pezard | ISTEEM (CNRS), Universite de Montpellier, France |
| Apologies: Zuyi Zhou | Tongji University, Peoples Republic of China |

Liaisons:

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| Jamie Allan | SCIMP Co-Chair, Appalachian State University, USA |
| Jack Baldauf | ODP-TAMU Science Operator, USA |
| Tim Byrne | ISSEP, University of Connecticut, USA |
| Gilbert Camoin | ESSEP, IRD Centre de Noumea and CEREGE, France |
| J. Paul Dauphin | NSF, National Science Foundation, USA |
| Dave Goldberg | ODP-LDEO, Wireline Logging Services, USA |
| Alister Skinner | TEDCOM, British Geological Survey, UK |
| Nick Piasias | JOI, Joint Oceanographic Institutions, Inc., USA |

Guests:

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|------------------------|---|
| Steve Bohlen | JOI, Joint Oceanographic Institutions, Inc., USA |
| Brad Clement | NSF, National Science Foundation, USA |
| John Farrell | JOI, Joint Oceanographic Institutions, Inc., USA |
| Marc Faure | Ghent University, Belgium |
| Jeff Fox | ODP-TAMU, Science Operator, USA |
| Jean-Pierre Henriët | Ghent University, Belgium |
| Isabella Premoli-Silva | Leg 198 Co-Chief, University of Milan, Italy |
| Ralph Stephen | Leg 200 Co-Chief, Woods Hole Oceanographic Inst., USA |
| John Tarduno | Leg 197 Co-Chief, University of Rochester, USA |
| Paul Wilson | Leg 199 Co-Chief, Southampton Oceanography Centre, UK |

JOIDES Office:

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| Aleksandra Janik | JOIDES Science Coordinator, RSMAS, University of Miami, USA |
| Elsbeth Urquhart | JOIDES International Liaison, RSMAS, University of Miami, USA |

Guests from the iPC Meeting

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| Andre Droxler | iSSP, Rice University, USA |
| Harry Doust | iILP, Vrije Universiteit, The Netherlands |
| Nobuhisa Eguchi | iSAS Office, JAMSTEC, Japan |
| Kathy Gillis | University of Victoria, Canada |
| Hisao Ito | iPC, Geological Survey of Japan, Japan |
| Kenji Kato | iPC, Shinshu University, Japan |
| Barry Katz | iPPSP Chair, ChevronTexaco, USA |
| Hajimu Kinoshita | iPC Co-Chair, JAMSTEC, Japan |
| Shin'ichi Kuramoto | iSSP Co-Chair, Geological Survey of Japan, Japan |
| Jörn Lauterjung | ICDP Liaison, GeoForschungsZentrum Potsdam, Germany |
| Hitoshi Mikada | iSSEP Co-Chair, JAMSTEC, Japan |
| Yoshiro Miki | JAMSTEC International Liaison, Japan |
| Ted Moore | iPC Co-Chair, University of Michigan, USA |
| Kate Moran | iTAP Chair, University of Rhode Island |
| Tomohisa Nawate | OD21, JAMSTEC, Japan |
| JoAnne Reuss | University of Michigan, USA |
| Jeffrey Schuffert | iSAS Office, JAMSTEC, Japan |
| Kiyoshi Suyehiro | iPC, JAMSTEC, Japan |
| Ryuji Tada | iPC, University of Tokyo, Japan |
| Yoshiyuki Tatsumi | iPC, JAMSTEC/IFREE, Japan |
| Robert Whitmarsh | InterMARGINS, Southampton Oceanography Centre, UK |
| Minoru Yamakawa | iSAS Office, JAMSTEC, Japan |
| Yasuo Yamada | JAMSTEC, Japan |

SCICOM Draft Minutes - August 26, 2002

A. Welcome and Introductions

Becker welcomed all attendees to the SCICOM meeting. He noted that Oppo and Brumsack were substituting on a one-time basis for Sarg and Herzig, respectively. Self introductions followed.

B. Logistical Announcements

Jean-Pierre Henriet welcomed the attendees on behalf of the meeting hosts and briefly outlined the meeting logistics.

C. Approval of Agenda

Becker noted one addition to the agenda, discussion of an APL which was received at the JOIDES Office three days earlier. Copies were distributed and Becker asked that SCICOM be ready to discuss the APL in the afternoon. With that addition, the agenda was approved.

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| SCICOM Motion 02-02-01: SCICOM approves the meeting agenda. |
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Fryer moved, Rea seconded, all in favor.

D. Approval of March 2002 Minutes

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| SCICOM Motion 02-02-02: SCICOM approves the minutes of its March 2002 meeting in Yokohama. |
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Mayer moved, Sager seconded, 14 in favor, none opposed, 1 abstention (Brumsack).

E. ODP Agency and Prime Contractor Reports

NSF

Dauphin reported that since the SCICOM meeting in Yokohama, the Program Plan budget increased by \$407,000 to \$47,985,259 to account for the potential effect of September 11 events on insurance, day rates, travel expenses, etc. The FY03 target budget is \$45.3M. The review panel for the FY03-07 Program Plan commended the FY03 plan as excellent, with only one major concern: that if IODP initiation is delayed, a contingency plan needs to be developed for ODP information services and core curation. The National Science Board (NSB) authorized the FY03-07 Program Plan including one year of operations and four years of phase-down activities. NSB was particularly concerned about legacy issues regarding data but JOI responded to these concerns.

Dauphin continued with an overview of the current membership levels, which for FY02 include Germany, Japan, UK, ESF, and PacRim as full members, and France (1/3 of full membership) and China (1/6 of the full membership) as associate members. Canada is currently seeking resources to bring PacRim back to 5/6 of the full membership level for FY03. EXCOM recommended associate membership level for PacRim in FY03, as only 76% of the annual contribution has been committed at present time.

Dauphin then informed SCICOM of the plans to establish the sixth Performance Evaluation Committee (PEC VI) in 2004 to evaluate the status and progress on the program phase-out activities.

Regarding the IODP non-riser vessel, Dauphin reported that NSF activities are well on track and

an RFP will be released most likely in late November 2003. To help with the non-riser vessel acquisition, John Walter from NOAA was invited to NSF as a visiting science engineer, so the program could take advantage of his experience with government contracting and ship acquisitions issues.

Dauphin concluded by announcing that Dr. Jamie Allan from the Appalachian State University had accepted the second NSF/ODP Program Director position as of October 1, 2002.

JOI

Pisias reported that the FY03-07 Program Plan has just been approved by NSB. The review panel met in May 2002 and JOI received 11 primary recommendations, to which the response was sent to NSF on June 7, 2002. Among the panel concerns were creation and preservation of ODP legacy, e.g., ODP and DSDP data archives, having enough resources for continuous availability of ODP data, website and cores to the scientific community, publication of technology and engineering summary sheets, preservation of blueprints in hard copy and digital form, and inventory of legacy holes (reentry sites).

Documenting legacy sites has been undertaken by TAMU and a poster was displayed with examples of legacy site descriptions including technical details of reentry cone, observatory installations, and locations.

Pisias then briefly explained the contingency financial plan in case there is a delay in IODP commencement. JOI is addressing these issues by identifying the costs of projects like continuation of core repositories until the end of FY07 (estimated \$675K/year), continuation of JANUS (\$290K/year), scanning DSDP core photos (\$418K) and migration of the micropaleontological database (\$752K) in case the IODP start is delayed. Pisias also reminded SCICOM that all ODP phase-out activities post 2003 are to be financed entirely by NSF.

Regarding details of data archiving, Pisias noted that NGDC (Boulder, Colorado) will act as permanent repository for the flat ASCII files that will be readable forever. The data (flat ASCII tables) will be organized by Site and Hole and logging data will also be archived as ASCII tables (already available). In addition, technical notes, lab procedures and other metadata will be archived. The archive tables have been presented and discussed during the June 2002 SCIMP meeting. Subsequently, JOI formed a working group chaired by David Divins from NGDC to provide guidance regarding proper data archiving. Progress on the archiving efforts will be reviewed by PEC VI.

Pisias continued the JOI report with an update on prospects for post-ODP (2003-2004) charter use of the JOIDES Resolution (JR). He noted that a proposal is expected from a Canadian group to drill off the coast of Nova Scotia; that US Department of Energy has expressed interest in hydrates drilling in Gulf of Mexico; and JANOC is interested in JR use for hydrates drilling in the Nankai Trough. He emphasized that it is a good sign that interest in JR usage has increased because this may allow preservation of ship-related capabilities during the interim period. Pisias added that NSF owns the equipment onboard the drillship, so if the JR is to be used after September 2003 with its full complement of equipment, it will require NSF permission. Therefore, a set of principles has been articulated to ensure that operations would be performed in accordance with NSF requirements. Any such operation would be run in a fashion similar to ODP, with scientific results open to the community (open exchange of data after some proprietary period), and as a science-based activity that would involve participation of academic scientists. Any such operation would have to be at no cost to NSF, and insurance coverage for the vessel and the drilling operations would be the responsibility of the proposing organization. Sager expressed concern that the demobilization date is coming so quickly that any possible post-ODP charter plans need to set very soon. Pisias agreed, and added that although the negotiations were continuing, at the moment there are no firm commitments and the only certain date is the programmed demobilization (September 21-30, 2003).

Pisias then described the plans for PEC VI, which is scheduled to convene and report in FY04. The evaluation committee will be finalized in summer of 2003 at the time of the last EXCOM meeting, and the review is scheduled to start in the Fall of 2003. The PEC VI charge as outlined during the last EXCOM meeting is to assess how well the goals of the Long Range Plan have been achieved, to examine all the aspects of the phase-out of the program and its impact on the commencement of the new IODP

program, and to evaluate the ODP legacy activities. The PEC VI charge also includes assessing the effectiveness of the JOI program management and JOIDES scientific advisory structure, to determine whether these are the most appropriate models for IODP.

Becker asked if JOI had formally adopted the version of the PEC mandate suggested by EXCOM at its meeting in Granada. Piasis confirmed as much, although he noted that the last charge, regarding evaluation of JOI and JOIDES as potential models for IODP, seems to be a bit late given the Fall 2004 timeline for PEC VI, so perhaps it will not be considered.

Finally Piasis reviewed recent personnel changes at JOI. These include hiring of the new Assistant Program Manager for USSSP, Bob Burger, and replacement of Brecht Donoghue, who left for graduate school, with Margo Cortes. JOI also has two new interns, Tony Goodman and Jennifer Anziano, and Frank Rack is now Director of DoE Programs, Associate Director of USSSP, and Assistant Director of ODP.

Farrell presented the second part of the JOI report about planning for Arctic drilling and revisions to the ODP Policy Manual. Farrell started with an update on the latest developments in the plans for Lomonosov Ridge drilling in the Arctic. He briefly summarized the steps taken to date starting with the August 2001 SCICOM motion endorsing the joint JOI/European initiative to establish an Arctic Project Management team. Subsequently in January 2002, IWG mandated iPC to rank MSP proposals in August 2002, and encouraged the funding organizations to move forward. This was followed by establishment of a contract between JOI and Swedish Polar Research Secretariat to conduct Arctic planning, together with JEODI cooperation. Many preparatory meetings took place and various planning activities are ongoing. Farrell diagramed a contract management structure including the major tasks of each unit, adding that it is a complicated program that requires considerable preparation. Farrell described the preferred four-vessel option for the operation, including one leading nuclear icebreaker, two other icebreakers (Terry Fox and Oden) and the drilling vessel Botnica. Farrell reported that a March meeting with the Botnica owners was very successful, and no liability issues were pointed out that could not be handled. It is planned that the operations would be headed by a European Science Operator with one qualified person as Armada Operations Manager. Farrell concluded that the total costs of the program is anticipated to be between \$8-9M and, if everything goes well, IWG may decide in January 2003 if the expedition is ready to commence in summer 2004.

Farrell then reported on the progress made on updating the ODP Policy Manual, which NSF asked JOI to revise as it has not been updated since 1992. The final version is to be finalized in September and to be sent to NSF for approval soon after. The manual contains the general overview of the ODP policies and once approved, it will be distributed widely to the community.

F. ODP Operator Reports

ODP-TAMU

Baldauf started by reporting that the portcall between Legs 204 and 205 had just been rescheduled from San Diego to Victoria, Canada for the same reason the July port call had also been rescheduled to Victoria – uncertainties about the potential US west coast longshore workers' strike. Then he briefly reported on the drilling operations for Legs 201 – 205.

Leg 201 – Peru Biosphere

- Very successful sampling for microbiology: out of total of 19,292 shipboard samples 10,732 taken for microbiological studies; samples had to be re-iced every two days but all samples successfully delivered to the institutions

Leg 202 – SE Pacific Paleoceanography

- Recovered more than 7,000 m of core with almost 100% of core recovery
- Very successful high resolution program with only two hiatuses

- Some weather problems at proposed primary site SEPAC-19A forced move to an alternate site

Leg 203 – Equatorial Pacific Ion

- Established cased reentry at the Hole 1243A for future multidisciplinary seafloor observatory, drilled to 224 mbsf and cased to 212 mbsf. This observatory is planned as part of DEOS (Dynamics of Earth and Ocean Systems).
- Hole 1243B drilled 600 m east off 1243A, RCB cored and logged
- Added 4 days to the transit due to portcall change from San Francisco to Victoria (to avoid potential longshoremen strike)

Leg 204 - Gas Hydrates (approximately one week remaining as of SCICOM meeting)

- 8 sites completed
- Very successful logging and measurements-while-drilling operations
- Extensive hydrate identified from 40-100 mbsf using high resistivity and RAB image anomalies
- Fugro Pressure Corer – good core but not able to maintain pressure
- HYACINTH Rotary Corer – good core with full to partial pressure
- Pressure Core Samples – good core with full to partial pressure
- About 40 pressurized samples recovered with HYACINTH and PCS (with DoE cooperation)
- HYACINTH transfer chamber successful – cores logged under pressure
- Portcall changed from San Diego to Victoria to avoid potential longshoremen strike
- 43 personnel were transferred on and off ship during the cruise

Leg 205 – Costa Rica

- Start portcall changed to Victoria to avoid potential longshoremen strike resulting in reducing operations by 2 days, so 3 top-priority sites will be completed, eliminating 4th lower-priority site
- Scientists to transfer to vessel in Acapulco and crew in Victoria

LDEO-BRG

Goldberg presented the logging highlights of recent and upcoming legs. He noted that for Legs 205-208, standard logging operations are scheduled, and a German magnetometer tool is planned to be added for Leg 206.

Leg 202 – SE Pacific Paleoceanography

- Standard logging and high-resolution gamma ray (3rd-party MGT)
- Core-log mapping critical because cyclicity in the sediments similar to the core length

Leg 203 – Equatorial Pacific Ion

- Standard logging and WST check shot
- Logs across sediment-basement contact show competent borehole conditions for downhole instrument emplacement
- NGR clearly shows two very different units within the basement

Leg 204 - Gas Hydrates

- Standard logging, VSP, offset VSP, density and imaging LWD, MWD, MRWD (Magnetic Resonance), RAB coring tool, HYACINTH (3rd-party) plus DSA
- Hydrates shown well in resistivity images (high resistivity - low water saturation)
- NMR-LWD and porosity log difference – indicators of high hydrate concentration
- Borehole breakouts clearly visible on the RAB images, probably related to stress and tectonics, but not yet well understood
- Successful RAB-while-coring tests at Site 1249 – 68% of recovery in first core, and 35% on average
- Drillstring acceleration tests performed for HYACINTH Rotary Corer and Fugro Pressure Corer

Next Goldberg updated SCICOM about logging-related legacy projects. He noted that 16 two-page technical summaries of ODP specialty, LWD, and third-party (certified) tools, as well as software, and related technologies are completed and can be accessed on the LDEO website at the following URL: <http://www.ldeo.columbia.edu/BRG/ODP/legacy.html>. Others are currently under development. He concluded his presentation with the diagrams illustrating the overall increase in logging database access as well as more activity coming from various foreign countries.

Ishii wondered about plans for improving of hard-rock recovery, but Baldauf said that at the moment no new developments are being done.

Becker referred to discussions at the March SCICOM meeting and asked whether the Leg 204 RAB-while-coring experiment was successful enough to warrant deployment on Leg 209. Goldberg confirmed that the RAB-while-coring tests on Leg 204 were successful, and noted that the possibility of use on Leg 209 depends on the availability of the tool.

G. EXCOM Report

Becker reported that during the last EXCOM meeting in Granada (25-26 June 2002), the main matters of interest to SCICOM were defining the charge of PEC VI and the discussion of membership issues. As was reported by Dauphin, EXCOM decided to class PacRim as associate member observer for FY03. The implication is that the PacRim representative will not have voting rights at the March 2003 SCICOM meeting. Becker added that EXCOM has one more meeting, scheduled for July 2003 in Bermuda to coincide with port call prior to Leg 210.

H. SSEPs Report

Camoin presented the status of the PPG Reports:

- *Arctic PPG* – Final report approved (excerpts published in spring 2001 JOIDES Journal).
- *Long Term Observatories* – Final report accepted (excerpts in fall 1999 JOIDES Journal).
- *Extreme Climates* – Final report accepted (excerpts in spring 2000 JOIDES Journal).
- *Hydrogeology PPG* – Final report submitted, reviewed, and recommended for acceptance.
- *The Architecture of the Oceanic Lithosphere PPG* – Final report submitted 02/2000 and reviewed, material from PPG minutes recommended by SSEPs to be added to final report.
- *Climate-Tectonics Links* – Report submitted 09/99 and reviewed.
- *Gas Hydrates PPG* – Report submitted 26/10/99 (excerpts in fall 2000 JOIDES Journal). SSEPs recommendation: needs revision.
- *Shallow Water Systems* – Report published in EOS but never submitted to SSEPs.
- *Deep Biosphere* – Nothing submitted to SSEPs. Final report requested (03/00).

SCICOM discussed those reports that have not yet been finalized in response to SSEPs' reviews. Austin said that reaching closure on all the reports is a legacy issue. Fisher noted that considerable hydrate work has been completed since the Gas Hydrate PPG report was written, so although there may be value in cleaning up a final draft of the report, the scientific return for this effort may be modest. Sager said that because the Gas Hydrate PPG report had been written, it needs to be archived and can be a starting point for a further work within IODP. Allan noted that the PPG reporting procedures were unclear and the Gas Hydrates PPG members tried to do their best in preparing the report. One PPG goal was to ensure the availability of proposals addressing hydrates objectives; insofar as there were many hydrates proposals, the Gas Hydrates PPG was successful.

Austin stated that it is a SCICOM responsibility to assess any uncertainties and identify how PPGs should be used in future. Byrne suggested that formal guides should be prepared for each PPG like that prepared by former SSEPs' chairs Lundberg and Morris for the Hydrogeology PPG.

Becker wondered about those PPG reports that the SSEPs recommend still need revision. Austin said that whatever the decision, it should now come from SCICOM. Becker suggested that, for Shallow Water Systems PPG, their EOS article might be acceptable as the final report. Pezard (former member of AOL-PPG) noted that there had been some conflicting views between the original guidelines from SCICOM and what the SSEPs wanted from the PPG; this confusion was probably caused by the change of the reporting requirements made after the PPG was formed.

Becker suggested that, for the PPG reports which have not been finalized, he would appoint SCICOM subcommittees to assess each situation and report at the March 2003 SCICOM meeting. These subcommittees would be charged both with finalizing or recommending a means to finalize the respective PPG reports as well as assessing the overall PPG process. [These subcommittee assignments were made in early September.]

I. Service Panel Reports

TEDCOM

Becker presented a brief TEDCOM report for Skinner, who was unable to attend that day. The last TEDCOM meeting took place in San Francisco in conjunction with the first iTAP meeting. The main purpose of that meeting was to ensure the orderly transfer of knowledge from TEDCOM to iTAP.

Becker then referred to the TEDCOM recommendation regarding plans for testing of ADCB for Leg 206 or 209. He noted that further testing and usage of the ADCB might address some of concerns expressed earlier about hard rock recovery. Baldauf explained that there is currently no formal plan to use the ADCB on either Leg 206 or 209 because the RCB is planned as the primary coring tool for both legs, and the costs of fielding the ADCB and supporting engineer for an entire leg are not justified for only a potential backup roll.

PPSP

Becker reported for Claypool who was currently on Leg 204. During its June meeting PPSP reviewed the sites for three final legs for FY03, approving all sites except one alternate site for Leg 210 that was viewed to pose a hydrocarbon risk. PPSP also reviewed APL 21 sites in the Santa Barbara Basin; after a long discussion, the majority of PPSP members did not support approval of those sites. PPSP also conducted two unofficial previews, one of a possible post-ODP JR charter project to drill near Newfoundland or Nova Scotia, the second for an NSF-funded Lake Malawi drilling program. D'Hondt asked if the Lake Malawi preview had been at the request of the participants or NSF, and Becker replied that he understood it was a joint request. Becker concluded by noting that the June 2002 meeting was probably the final JOIDES PPSP meeting.

SCIMP

Allan reported that the Hard Rock Working Group (HRWG) meeting in May was very successful and noted that he would present the findings during the iPC segment of the joint meeting. He then briefly discussed the six recommendations to SCICOM from the June SCIMP meeting.

SCIMP Recommendation 02-1-1

The Digital Seismic Data Submission guidelines prepared by the ODP Databank and Borehole Research Group/Lamont should be used as a standard for all digital seismic data. The guidelines together with the data documentation sheets will be uploaded to the Borehole Research group WebPages.

SCIMP Recommendation 02-1-2

SCIMP recommends that the ODP Science Operator incorporate all regularly collected data in the JANUS data model and that appropriate data up-loaders are provided. SCIMP also recommends that the JANUS data queries are modified to allow all data in the JANUS database to be accessed. For example, in the case of magnetic susceptibility, instrument type needs to be added.

SCIMP Recommendation 02-1-3

SCIMP encourages ODP to consider publishing, as part of the peer-reviewed Technical Note series, the multi-leg petrologic results compiled by Kurnosov et al.

Allan said that this manuscript could be an important part of the ODP legacy documentation.

SCIMP Recommendation 02-1-4

SCIMP endorses the concept of comprehensive metadata documentation for each of the prime data types in the JANUS database. These documents should address issues relating to data collection, data archiving, and data quality. Metadata documentation files would accompany the ASCII data archive and be available through the JANUS system.

Allan added that a very good presentation dealing with the X-ray fluorescence data documentation was given at TAMU during the last SCIMP meeting

SCIMP Recommendation 02-1-5

SCIMP recommends that FMS and digital line scan image files be archived as depth-associated ASCII vector files.

The justification for this recommendation is the fact that the binary data format is not always readable, so SCIMP advised that ASCII format should be used for FMS archival.

SCIMP Recommendation 02-1-6

Given the reduced need for advice to the current ODP as it enters its last year of operation, the JOIDES SCIMP recommends that it meet electronically for the remainder of its existence.

Ishii made a suggestion concerning modification of the way hard-rock core is split, so that more material is provided for scientific studies but a significant part remains preserved for archive. Allen suggested that a formal suggestion should be made for consideration at the next iSCIMP meeting.

SCICOM then accepted the six SCIMP recommendations by consensus.

SCICOM Consensus 02-02-03: SCICOM accepts the following SCIMP recommendations:

SCIMP recommendation 02-1-1 concerning the guidelines for digital seismic data submission
SCIMP recommendation 02-1-2 concerning the JANUS data model
SCIMP recommendation 02-1-3 concerning the petrologic results compiled by Kurnosov et al.
SCIMP recommendation 02-1-4 concerning metadata documentation in JANUS
SCIMP recommendation 02-1-5 concerning the FMS and digital line scan images
SCIMP recommendation 02-1-6 concerning conducting any future business only by email.

J. Leg Science Reports

Leg 197 - Motion of the Hawaiian Hotspot: A Paleomagnetic Test

John Tarduno presented the scientific results of the Leg 197, the objective of which was to test the hypothesis of southward motion of the Hawaiian hotspot. This was achieved by coring of flat lava flows on top of seamounts for shipboard and shore-based magnetization analyses. Three Emperor

Seamounts were cored for paleomagnetic comparison to data from Hawaii, and the shipboard results indicate significant southward motion of the Hawaiian hotspot in the late Cretaceous and early Tertiary. Shorebased studies are now being performed to verify the preliminary results but there is no scientific indication confirming the fixed hotspot theory, and the data verify the hot spot motion, possibly as a part of large moving mantle cell in Pacific.

MacLeod pointed out core-log integration techniques which, by matching core structures with their representations on borehole images, allow full restoration of paleomagnetic data to geographical coordinates. They can thus provide estimates of pole position independent of many of the assumptions made when using magnetic inclination data alone. Tarduno noted that precise age data for Leg 197 samples are now being collected at UC Berkeley and the results will be presented at the Fall AGU meeting. Allan commented that the Leg 197 results are amazing with exciting implications for interpretation of mantle movement.

Leg 198 - Extreme Warmth in the Cretaceous and Paleogene: a Depth Transect on Shatsky Rise, Central Pacific

Isabella Premoli-Silva presented the scientific results of Leg 198, which aimed at understanding the long-term climate transition in and out of warm climate greenhouse (Cretaceous and Paleogene global warmth) as well as transient but critical events that involved major changes in ocean environment, geochemical cycles and marine biota recorded in the marine sediments on the Shatsky Rise. Shatsky Rise is a medium-sized large igneous province (LIP) in the west-central Pacific and it contains sediments of Cretaceous and Paleogene age at relatively shallow depths on three prominent highs. Eight sites were drilled in 4 transects and the complete Cenozoic section was obtained except hiatus between 17-25 Ma. The recovered sediments were predominantly calcareous ooze, chalk and limestone with exception of clay- and silica-rich Neogene section.

Some of the scientific results include recovery of such critical intervals as the Cretaceous-early Aptian Anoxic Event (OAE 1a), Cretaceous/Tertiary boundary (K/T), Mid-Maastrichtian Event (MME), late Paleocene thermal maximum (LPTM). Premoli-Silva added that many chert horizons were also encountered and their frequency was utilized as indication of the chemical state of the water column – higher frequency of chert layers meaning reducing condition. The sediment provided the evidence for an abrupt rise in the level of the calcite compensation depth (CCD) during the LPTM, major deep-water cooling during Oligocene, deepening in the CCD at or during the Eocene–Oligocene transition and other important events.

Leg 199 - Paleogene Equatorial Transect

Paul Wilson reported on the scientific findings of the Leg 199, the objectives of which included defining the sedimentary record of paleoproductivity, paleocirculation and paleowind patterns in the Paleogene Equatorial Pacific and studying critical paleoclimatic intervals such as Paleocene/Eocene boundary, Eocene/Oligocene boundary in the Equatorial Pacific, where they have not been properly sampled before. A third objective was to obtain a complete Oligocene/Miocene record of ocean atmospheric circulation from Cenozoic warmth to initial Antarctic glaciation. The Paleogene was the focus interval because of the extreme perturbation in global climate at that time. Eight sites were drilled in total and Wilson briefly described five lithochronologic unit identified in the sediments: (1) surficial clay and radiolarian Ooze, (2) Oligocene–Lower Miocene nannofossil ooze and chalk, (3) Late–Middle Eocene radiolarian ooze, (4) Lower Middle–Lower Eocene cherts, clay and radiolarian Ooze, and (5) Lower Eocene–Upper Paleocene nannofossil ooze and chalk. Wilson said that there were two major peaks in sedimentation rates, one in lower Oligocene in the carbonate ooze sediments and the other in the upper middle Eocene in radiolarian ooze intervals, and then he briefly discussed the mass accumulation rates.

Wilson then highlighted the recovery of such important intervals like Oligocene/Miocene, Eocene/Oligocene and Pliocene/Eocene boundaries, and he emphasized a very good magnetostratigraphic record and excellent cyclostratigraphy in carbonate units. He added that, based on the degree to which the

upper Eocene through Oligocene and Miocene sections at Sites 1218 and 1219 correlated, it can be concluded that central Pacific was behaving as one system in those times.

Wilson concluded his presentation with operational comment. He said that for such paleoceanographic studies it is very important to recover as much materials with APC coring system as possible allowing for crucial magnetostratigraphic measurements. He suggested that perhaps the APC core barrel length could be changed from 10 to 5 m near the APC-XCB transition to increase the depth at which we have to switch from APC to XCB.

D'Hondt wondered if any impact debris was found in Eocene, but Wilson responded not.

Leg 200 - Drilling at the Hawaii-2 Observatory (H2O) and the Nuanu Landslide

Ralph Stephen presented the scientific highlights of Leg 200. One of the objectives of that cruise was APL coring to investigate a landslide off Oahu from 2 Ma ago and study the distal units of the landslide debris. The coring demonstrated that the landslide was probably a complex pyroclastic event similar to Mount St. Helen eruption.

The primary objective of Leg 200 was establishing a cased reentry hole in fast-spread crust at H2O. The site is located in one of the high-priority regions for the Ocean Seismic Network, near the Hawaii-2 cable and the H2O junction box on the cable. The leg succeeded in establishing a cased reentry hole suitable for future installation of a seismometer. NSF has funded a program to instrument the hole with a broad-band borehole seismometer and link it to the H2O junction box. Stephen concluded by noting that both Leg 200 and 203 sites are high priority sites for Ocean Seismic Network.

K. Legacy Issues

Legacy Holes

Becker recalled the poster prepared by TAMU presenting the legacy hole documentation, and he suggested that this poster might be published in the next issue of the JOIDES Journal.

Greatest Hits

Urquhart updated the committee with the latest developments in planning for the publication of the Greatest Hits volume 2, prepared at the request of EXCOM and aiming at general audience. After very extensive call for articles 47 contributions were submitted. They were edited and returned for the authors' approval. Urquhart said that the authors were very positive about these suggested modifications. She presented the breakdown of the contributions by countries: USA 20, UK 7, Japan 4, Germany 4, Australia 2, Switzerland 2, France 2, Russia 1, Norway 1, Canada 1, and Portugal 1. The SSEPs have reviewed the articles and have chosen 20 to be published as hardcopies, but all 47 articles will be available on the JOI website. Possibly a 3rd volume could be prepared to cover the remaining legs (198-210) but this will be a decision to be taken in the future by JOI.

Byrne described the SSEPs review process, noting that the SSEPs members were asked to pick 20 out of 47 hits, and 7 reviews were received (including the co-chairs). The next step now is to edit the top picks and have final versions available for potential hard copy publication. Some of the hits could be merged.

Brumsack suggested that the electronic files should be available in original format, for the ease of translation of the figure labels to the different language. Urquhart confirmed that all originals are available. D'Hondt said that if this is prepared for popular readers then "punchier" titles could be better.

Austin wondered if the Greatest Hits address all the objectives of the Long Range Plan, but Mayer said that the hits are about the best accomplishments of the program and it is a separate issue from the Long Range Plan. SCICOM generally agreed but Allan and Rea noted that the hits generally do cover the Long Range Plan.

JOIDES History

Becker said that NSF had asked the JOIDES Office to compile a brief history of the JOIDES panels, and this will be presented at the March SCICOM meeting

L. APL 22 Review

Becker initiated a discussion regarding APL 22 (Installation of a Cabled-Observatory-Connected Test Hole in Monterey Bay), which was submitted to the JOIDES Office just before this SCICOM meeting. (Copies of the APL had been distributed earlier during the morning, so members and liaisons could read it for the afternoon discussion.) He presented a range of possible options for how SCICOM could respond to the APL, and he also recalled the discussions of APL 21 that had been submitted just prior to the previous SCICOM meeting. APL 21 had a few months of lead time that allowed a full review process by email, whereas APL 22 was submitted with only a few days lead time in that the drilling could only be conducted during the upcoming transit from Leg 204 to 205. In the light of such tight timing Becker requested that first SCICOM decide whether and by what process to review the APL, and only then turn to the scientific review. Some discussion followed with general consensus that APL 22 should indeed be reviewed, as each opportunity to do new and exciting science should be embraced by SCICOM.

Prior to SCICOM discussion of scientific merit of the APL, Becker asked Baldauf for a brief summary of any logistical issues. Baldauf summarized the following aspects:

- Drilling at the APL 22 site requires NOAA and MMS permitting; currently MBARI is in negotiation for the required permits.
- SSP and PPSP issues – there are cables in the area and site is not on crosslines of seismic profiles
- Lead times – Port call is on September 2 and drilling would have to be scheduled for September 9. Casing would need to be ordered immediately and a decision to proceed would have to be made by the day after the SCICOM meeting.
- 4.5 days added to already long Leg 205, which would complicate the TSF crew scheduling
- Cost about \$163K (crew change not included)
- Would the proposed drilling maximize the potential science, i.e. what about logging?

SCICOM then engaged in a thorough discussion emphasizing a scientific review of APL 22. Austin was concerned that the proposed site was not located on a seismic crossline (which would almost certainly be a requirement from both SSP and PPSP). Piasis said that the financial aspects should not be considered a problem and that funds could be found should SCICOM decide to schedule APL 22. Baldauf said that the timing is very tight and the decision must be taken now, so there is enough time to be ready with casing for Victoria portcall. Bloomer commented that it is a good APL but put forward the proposition that it should go through the full JOIDES review system. Mayer responded that the program should be flexible when an opportunity to do interesting science arises. Sager seconded that opinion.

Pezard suggested that committee should focus on the scientific merit of the APL. D'Hondt noted that there was potential that such a site could be interesting for a microbiological observatory. Bloomer said that APL 22 contains a very exciting idea but wondered if the technical aspects were appropriate. Sager noted that this APL is more exciting in terms of engineering than science. Mayer said that this APL could be yet another step toward defining future long-term observatory science, but he was unsure if in this particular case we would not be moving too fast without having enough time to think about the safety issues, optimal technology, etc. Austin replied that Mayer had in fact presented an elegant argument to emplace this test site in the beginning of IODP rather than at the end of ODP, so the planning could be done better and in order to gather more community input, with the desirable goal to ensure that the site would be useful to a broad scientific community.

Mayer asked Stephen to comment about the depth of such sites, and Stephen said that deep water might be better but in this case proximity to shore and thus fast access would be advantageous. He added

it is always good to have convenient test sites.

Mayer wondered if ODP would have to depend on MBARI vessels for accessing the site. Dauphin said that there always must be an institutional commitment (MBARI in this case), but MARS is an NSF-funded project, so it would belong to the community.

Sager asked seismologists present as observers to comment on the suitability of the chosen site for the seismic research suggested in the proposal. Suyehiro said that the proximity to the plate boundary is advantageous and a seismometer is important for such location. He also noted that the broad seismological community is not aware yet of this project. Austin agreed that he would like to see a round of community discussion.

Goldberg said that the lack of logging should not stop SCICOM from scheduling the APL, but noted that rig time for logging of the formation should be added to provide useful in situ site characterization. Austin asked if logging can be done through casing and Goldberg confirmed for a few logs, provided that prior open-hole logging is done to calibrate them. Suyehiro noted that comparable Japanese test sites could also be considered in the future.

The discussion concluded with the following motion:

Preface to SCICOM Motion 02-2-4:

SCICOM applauds the proponents' vision and is excited by the opportunities presented by a test hole connected to a high-bandwidth, high-power cable. This represents a tremendous opportunity.

However, SCICOM believes that there are scientific and technical issues that need review and discussion prior to a commitment to establishing such a test site. These issues include:

- 5) Is there a community consensus on the optimal technical requirements for such a site? Issues include hole diameter, seafloor landing structure, hole depths, and casing strategy.
- 6) How do the environmental and geological characteristics limit or enhance the prospects for instrument tests that might be done in the hole? Issues include porosity, formation pressures, lithologies, hydrocarbon potential, and so on.
- 7) How is community access to the site to be managed? Issues include interactions with MBARI and management of permitting issues within the sanctuary.
- 8) Should planning for the drilling operations include time for logging of the formation to establish adequate baseline characterization?

SCICOM Motion 02-02-04: SCICOM strongly encourages the proponents of APL-22 to submit a pre-proposal to the IODP interim Science Advisory Structure for a test hole in Monterey Bay as part of the MARS facility.

Bloomer moved, Austin seconded, all in favor.

M. Next meeting: the final SCICOM meeting?

Austin briefly but very enthusiastically introduced the committee to the location and amenities for the next meeting, which will take place in Austin, TX on Monday, March 17, 2003, followed by the iPC meeting. Becker noted this will most probably be the final SCICOM meeting.

N. Before SCICOM adjourned, Becker proposed a consensus to thank the meeting hosts:

SCICOM Consensus 02-02-05: SCICOM thanks Jean-Pierre Henriet and Marc Faure of Ghent University for wonderful arrangements in hosting this meeting in such a quintessentially European location. SCICOM also sincerely thanks ECOD and ODP-France for financial co-support for the meeting arrangements.