

# MEETING OF THE JOIDES SCIENCE AND OPERATIONS COMMITTEES

DALHOUSIE UNIVERSITY  
HALIFAX, NOVA SCOTIA, CANADA

1-4 AUGUST 2000

## Science Committee - SCICOM

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Sherman Bloomer	Department of Geosciences, Oregon State University, USA
Millard Coffin	Institute for Geophysics, University of Texas at Austin, USA
Steven D'Hondt	Graduate School of Oceanography, University of Rhode Island, USA
William Hay (Chair)	GEOMAR Research Center, University of Kiel, Germany
David Hodell <sup>a</sup>	Department of Geological Sciences, University of Florida, USA
Nils Holm	Department of Geology and Geochemistry, Stockholm University, Sweden (ECOD)
Jock Keene	School of Geosciences, University of Sydney, Australia (PacRim)
Kenneth Miller	Department of Geological Sciences, Rutgers University, USA
J. Casey Moore	Department of Earth Sciences, University of California, Santa Cruz, USA
Masao Nakanishi <sup>b</sup>	Ocean Research Institute, University of Tokyo, Japan
Paul Pearson <sup>c</sup>	Department of Earth Sciences, University of Bristol, United Kingdom
Larry Peterson <sup>d</sup>	Rosenstiel School of Marine & Atmospheric Science, University of Miami, USA
Nicklas Pisiac <sup>e</sup>	College of Oceanic & Atmospheric Sciences, Oregon State University, USA
David Rea	Department of Geological Sciences, University of Michigan, USA
Alastair Robertson	Department of Geology and Geophysics, University of Edinburgh, United Kingdom
Frederick Sarg	ExxonMobil Exploration, Houston, USA
Thomas Shipley <sup>f</sup>	Institute for Geophysics, University of Texas, USA
Douglas Wiens	Department of Earth and Planetary Science, Washington University, USA

## Associate Member Observers

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John Ludden	Centre de Recherches Pétrographiques et Géochimiques, CNRS-Nancy, France
Xin Su <sup>g</sup>	Center of Marine Geology, China University of Geosciences, P.R. China

## Operations Committee - OPCOM

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William Hay (Chair)	GEOMAR Research Center, University of Kiel, Germany
David Hodell <sup>h</sup>	Department of Geological Sciences, University of Florida, USA
J. Casey Moore	Department of Earth Sciences, University of California, Santa Cruz, USA
Nicholas Pisiac	College of Oceanic & Atmospheric Sciences, Oregon State University, USA
Alastair Robertson	Department of Geology and Geophysics, University of Edinburgh, United Kingdom
Thomas Shipley	Institute for Geophysics, University of Texas, USA

## Liaisons

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Jack Baldauf	Ocean Drilling Program, Texas A&M University, USA
J. Paul Dauphin	National Science Foundation (NSF), USA
John Diebold	Lamont-Doherty Earth Observatory, Columbia University, USA
John Farrell	Joint Oceanographic Institutions, Inc. (JOI), USA
David Goldberg	Lamont-Doherty Earth Observatory, Columbia University, USA
Tom Janecek	Antarctic Research Facility, Florida State University, USA
Neil Lundberg	Department of Geology, Florida State University, USA
Julie Morris	Department of Earth and Planetary Science, Washington University, USA
Mary Reagan	Lamont-Doherty Earth Observatory, Columbia University, USA
Alister Skinner	British Geological Survey, Edinburgh, United Kingdom

<sup>a</sup> Alternate for Kenneth Miller

<sup>b</sup> Alternate for Hidekazu Tokuyama

<sup>c</sup> Alternate for Alastair Robertson

<sup>d</sup> Alternate for Steven D'Hondt

<sup>e</sup> Alternate for Larry Mayer

<sup>f</sup> Alternate for Patricia Fryer

<sup>g</sup> Alternate for Zhou Zuyi

<sup>h</sup> Alternate for Keir Becker

## Guests

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Jeff Fox	Ocean Drilling Program, Texas A&M University, USA
Ulrich Harms	GeoForschungsZentrum, Germany
Martin Hovland	STATOIL, Norway
Luba Jansa	Geological Survey of Canada (Atlantic), Bedford Institute of Oceanography, Canada
Kate Jarrett	Department of Earth Sciences, Dalhousie University, Canada
Jim Kennett	Department of Geological Sciences, University of California, Santa Barbara, USA
Bruce Malfait	National Science Foundation (NSF), USA
Yoshiro Miki	Japan Marine Science and Technology Center (JAMSTEC), Japan
Greg Moore	Department of Geology and Geophysics, University of Hawaii, USA
Ted Moore	Department of Geological Sciences, University of Michigan, USA
Kathryn Moran	SeaMap Office, Canada
Phil O'Brien	Australian Geological Survey Organization, Canberra, Australia
Jennifer Peterson	International Working Group (IWG) Support Office, USA
Philippe Pezard	CEREGE, France
Frank Rack	Joint Oceanographic Institutions, Inc. (JOI), USA
Joanne Reuss	Department of Geological Sciences, University of Michigan, USA
Matt Salisbury	Geological Survey of Canada (Atlantic), Bedford Institute of Oceanography, Canada
Sam Scully	Vice-President, Academic and Provost, Dalhousie University, Canada
Masanori Shinano	International Working Group (IWG) Support Office, USA
Shiri Srivastava	Geological Survey of Canada (Atlantic), Bedford Institute of Oceanography, Canada
James Zachos	Department of Earth Sciences, University of California, Santa Cruz, USA

## JOIDES Office

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Warner Brückmann	GEOMAR Research Center, University of Kiel, Germany
Bettina Rohr	GEOMAR Research Center, University of Kiel, Germany
Jeffrey Schuffert	GEOMAR Research Center, University of Kiel, Germany

**MEETING OF THE  
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**SUMMARY OF MOTIONS**

**SCICOM Consensus 00-2-1:** SCICOM approves the minutes of its February 2000 joint meeting with EXCOM.

**SCICOM Motion 00-2-2:** SCICOM approves the minutes of its February 2000 meeting.

Miller moved, Coffin seconded; 12 in favor, 1 abstained (Shipley), 2 absent (Robertson, Wiens,).

**SCICOM Consensus 00-2-3:** SCICOM decides to forward the top twelve ranked drilling proposals plus APL-10 and APL-14 to OPCOM for possible scheduling.

**SCICOM Motion 00-2-4:** SCICOM notes the current imbalance between U.S. and non-U.S. panel chairs and recommends establishing a balanced representation as soon as possible.

Holm moved, Miller seconded, 11 in favor, 1 opposed (Rea), 1 abstained (Pearson), 2 absent (Hay, Pisas).

**SCICOM Motion 00-2-5:** SCICOM establishes a detailed planning group (DPG) to investigate the logistical, technological, and budgetary requirements for Arctic drilling related to Proposal 533-Full2. The DPG will prepare a report on these issues for SCICOM to review in August 2001.

Rea moved, Moore seconded, 12 in favor, 3 absent (Hay, Hodell, Pisas).

**SCICOM Motion 00-2-6:** SCICOM requests the JOIDES Office to revise the ODP guidelines for submitting Ancillary Program Letters as follows, with new text shown as underlined:

Ancillary programs are generally limited to the general geographic area of leg operations and to no more than 2-3 days of dedicated ship time. Requests for accommodation of ancillary programs in the Ocean Drilling Program should be submitted in the form of an Ancillary Program Letter to the JOIDES Office in accordance with normal proposal deadlines.

Rea moved, Pisas seconded, 15 in favor.

**SCICOM Consensus 00-2-7:** SCICOM approves OPCOM Consensus 00-2-1 and 00-2-2.

**SCICOM Consensus 00-2-8:** SCICOM approves TEDCOM Recommendations 00-1-1 through 00-1-4.

**SCICOM Consensus 00-2-9:** SCICOM approves SciMP Recommendations 00-2-1 through 00-2-5.

**SCICOM Motion 00-2-10:** SCICOM prioritizes leg operational expenses for FY2001 over additional expenditures such as the purchase of a digital camera and measurements-while-drilling (MWD) work on Leg 196.

Moore moved, Holm seconded; 14 in favor, 1 absent (Pisas).

**SCICOM Motion 00-2-11:** SCICOM approves the following operations schedule for 2001 and 2002, contingent upon the proponents of Proposal 499-Rev informing us of the expected timeline for installing the ION observatory.

<b>Leg</b>	<b>Proposal</b>	
195	431-Rev	Western Pacific ION
"	505-Full3	Mariana Convergent Margin (South Chamorro Seamount mini-leg)
196	517-Full	Nankai II
197	523-Full	Hawaiian Hotspot-Emperor Seamounts
198	534-Full	Shatsky Rise
199	486-Rev2	Paleogene Equatorial Pacific Transect
200	500-Full2	H2O Observatory
201	571-Full	Peru Margin Deep Biosphere
202	465----	Southeast Pacific Paleoceanography
203	544-Full2	Costa Rica Subduction Zone
204	546-Full	Hydrate Ridge
205	499-Rev	Equatorial Pacific ION

Rea moved, Moore seconded; 14 in favor, 1 absent (Pisias).

**SCICOM Motion 00-2-12:** SCICOM strongly endorses the activities of TAMU and JOI in assembling a database of publications related to ODP. We further encourage them to make this database searchable (e.g., by index terms, geological age, and geographic region). We recognize the current lack of allocated resources for these activities, and we encourage their financial support.

Miller moved, D'Hondt seconded; 15 in favor.

**SCICOM Motion 00-2-13:** SCICOM recommends that TEDCOM and SciMP, together with TAMU and LDEO/BRG, prepare a one-page summary for each tool (including drilling, coring, logging, and other measurement tools) developed by or for the ODP community, emphasizing how the tool contributed to the scientific results of the program. These summaries could serve as appendices to operational manuals and as a basis for compiling a technical reference document for the ODP legacy.

Miller moved, Coffin seconded; 15 in favor.

**SCICOM Motion 00-2-14:** SCICOM endorses the following plan for preparing an ODP legacy document entitled *Achievements and Opportunities of Scientific Ocean Drilling*.

## **Outline**

### **I. Dynamics of Earth's Environment**

- A. Earth's Changing Environment
  - 1. Rapid climate change
  - 2. Extreme climates
  - 3. Climate response to orbital forcing
  - 4. Causes and effects of sea-level change
  - 5. 180 million years of ocean history
- B. Sediments, Fluids, and Bacteria as Agents of Change
  - 1. Sediment processes and budgets
  - 2. Fluids in sediments and rocks
  - 3. Formation of gas hydrates
  - 4. Deep biosphere

### **II. Dynamics of Earth's Interior**

- A. Transfer of Heat and Material from Earth's Interior
  - 1. Mantle and core dynamics
  - 2. Ocean crust and mid-ocean ridge processes
  - 3. Hydrothermal and sulfide mineral processes
  - 4. Subduction factory
- B. Lithosphere Deformation and Earthquake Processes
  - 1. Passive continental margins and rift environments
  - 2. Convergent margins and collisional settings
  - 3. Earthquake mechanisms

## **Contents**

Executive summary	5 pages
Short summaries of achievements for sixteen sub-themes	4-5 pages each
Introduction or statement of scientific issues and challenges	1 page
Bullets summarizing achievements and opportunities	1-2 pages
Summary of goals met	1 paragraph
Summary of future opportunities	1 paragraph
List of greatest hits (from bullets)	

## **Timeline**

SCICOM Chair invites Editorial Review Board (ERB)	1 September 2000
ERB and SCICOM Chair invite authors	1 October 2000
Authors and ERB compile bullets and circulate among community	Fall 2000
Authors and ERB compile final bullet list	1 February 2001
ERB provides final bullet list to SCICOM	1 March 2001
Completion of short summaries	1 May 2001
Executive summary and excerpt of greatest hits	1 June 2001

C. Moore moved, Rea seconded; 14 in favor, 1 abstained (Shipley).

**SCICOM Motion 00-2-15:** SCICOM proposes to EXCOM that all committees and panels of the JOIDES Science Advisory Structure remain extant through September 2003. Although the duties of these committees and panels may diminish greatly after September 2001, and some of them may not need to meet in person, the program will continue to require their advice on scientific prioritization (SCICOM, SSEPs), shipboard operations (OPCOM, PPSP, SSP), shipboard measurements (SciMP), and technical developments (TEDCOM). The maintenance of the JOIDES Science Advisory Structure through September 2003 will allow the greatest flexibility in the transition to the interim IODP science advisory structure (iSAS). We foresee that some or all of the JOIDES committees and panels may meet in tandem with their iSAS counterparts.

Miller moved, D'Hondt seconded; 15 in favor.

**SCICOM Motion 00-2-16:** SCICOM directs SciMP to continue advising JOI, TAMU, and LDEO/BRG in developing options for the long-term maintenance of the ODP database, JANUS database, core repositories, and other ODP legacies.

Miller moved, Piasias seconded; 15 in favor.

**SCICOM Motion 00-2-17:** SCICOM endorses the membership of the Industrial Liaison Working Group, as proposed by IPSC.

Bloomer moved, Shipley seconded; 14 in favor, 1 abstained (Hay).

**SCICOM Consensus 00-2-18:** SCICOM bids fond farewell to Kensaku Tamaki. Ken helped SCICOM make the transition to the new advisory structure, provided advice on drilling ocean crust, and kept us informed on Japanese plans for the new program. We wish him well in his new role as chair of the InterRidge Office.

Presented by Miller

**SCICOM Consensus 00-2-19:** SCICOM sincerely thanks Ken Miller for his untiring efforts on behalf of ODP. Ken has outspokenly supported scientific ocean drilling, his advice and counsel have forwarded the goals of the project, and he has served this committee well, faithfully, and with his own special brand of enthusiasm. We wish him well in all future endeavors.

Presented by Rea

**SCICOM Consensus 00-2-20:** SCICOM notes with regret the last meeting of J. Casey Moore as a member of this committee. Casey has served ODP and its predecessor DSDP as a panel member, proponent, co-chief scientist, and willing source of advice and counsel. His thoughtful comments, thorough understanding of technical and scientific issues, and commitment toward crafting the best science for ocean drilling have proved invaluable to the program. He has helped SCICOM and all of ODP through hydrates, hiatuses, and wholehearted hurrahs for holes in the ocean floor. We thank Casey and have no doubt that we will see him again soon as IODP takes wing.

J. Casey Moore's not quite a druid;  
He's simply enamored with fluids.  
Alas he is done,  
Heading back to the sun,  
When we let him go we sure blew it.

Presented by Bloomer

**SCICOM Consensus 00-2-21:** SCICOM extends its heartfelt thanks to Gerard Bond for his keen insight, reviews, and discussions (IRD) during his tenure on this committee. We will miss the unique perspective that comes from a petrologist turned paleoclimatologist whose broad geological expertise spans hard rocks to Heinrich events. We wish Gerard continued success in his efforts to understand climate change in the North Atlantic and its societal implications, and we look forward to the day when “Bond cycles” become part of the public lexicon.

Presented by Hodell

**SCICOM Consensus 00-2-22:** SCICOM thanks John Ludden for his dedicated service to the Ocean Drilling Program. Despite some flexibility in nationality (having represented variously the United Kingdom, Canada, and France), he has always proved himself as a valued citizen of the international scientific community. We know that John thrives on having simultaneous membership in at least a half dozen international committees, and we suspect that his contributions to planning scientific ocean drilling have not ended.

John Ludden has donned many hats,  
But we have no problem with that.  
He’s ne’er made a fuss,  
Though working with us  
Is really like herding large cats.

Presented by Bloomer

**SCICOM Consensus 00-2-23:** SCICOM thanks Emily Klein for her service on the committee. Her extensive knowledge of mid-ocean ridge petrology and geochemistry proved invaluable. We will miss her boundless enthusiasm, unmistakable voice, and constant support of ODP.

Presented by Wiens

**SCICOM Consensus 00-2-24:** SCICOM thanks Kate Moran for her contributions to ocean drilling over the past two decades. She has always brought energy and focus to the tasks at hand. We appreciate her continuing efforts to promote IODP in the Canadian academic, governmental and industrial communities, and we wish her well in her new position.

Presented by Moore

**SCICOM Consensus 00-2-25:** We thank Bill Hay for his sage chairmanship of SCICOM and OPCOM. His current stewardship builds on a remarkable four-decade history of contributing to scientific ocean drilling, including his pivotal leadership during the transition from DSDP to ODP. SCICOM has especially appreciated Bill’s emphasis on essential scientific issues and his desire to keep the program focused on the most exciting problems. We wish him well in the post-SCICOM world as he explores and models the balmy Cretaceous climes.

Presented by Moore

**SCICOM Consensus 00-2-26:** SCICOM expresses its profound appreciation and thanks to the JOIDES Office staff, Warner Brückmann, Jeff Schuffert, Emanuel Söding, and Bettina Rohr, for their untiring energy, enthusiasm, and efficiency. Their combined efforts played an essential role in the smooth running of the program. We wish each of them all the best in the future.

Presented by Robertson

# MEETING OF THE JOIDES SCIENCE AND OPERATIONS COMMITTEES

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## MINUTES

Tuesday, 1 August 2000 .....8:30 AM

### SCICOM Meeting

#### A. Welcome and introduction

##### A.1 Introduction of participants

Bill Hay called the meeting to order at 8:40 AM, and the participants introduced themselves. Note that the SCICOM membership at this meeting includes three extra participants who stepped in as alternates during the discussion, ranking, and scheduling of drilling proposals because three of the attending regular SCICOM members had a conflict of interest as proponents of specific proposals.

##### A.2 Meeting logistics

Sam Scully, Academic Vice-President and Provost of Dalhousie University welcomed everyone to the university and to Halifax. Shiri Srivastava explained the meeting logistics and the schedule of social events.

##### A.3 Approval of agenda

Hay announced that OPCOM would meet in an unscheduled session Tuesday evening. He also noted that Yoshiro Miki would give the OD21 report instead of Nakanishi. Piasias requested to move the IPSC report, scheduled for Friday afternoon, forward on the agenda because several committee members would have to leave the meeting early. Hay said that he would consider the request and decide later. Otherwise, the committee approved the agenda by consensus.

##### A.4 Approval of minutes from February 2000 EXCOM and SCICOM joint meeting

Hay called for approval of the minutes from the one-day joint meeting of EXCOM and SCICOM in February 2000. No one requested any further corrections, and the committee approved the minutes by consensus.

**SCICOM Consensus 00-2-1:** SCICOM approves the minutes of its February 2000 joint meeting with EXCOM.

##### A.5 Approval of minutes from February 2000 SCICOM meeting

Hay called for approval of the minutes from the separate SCICOM meeting in February 2000. No one requested any further corrections, and the committee voted to approve the minutes.

**SCICOM Motion 00-2-2:** SCICOM approves the minutes of its February 2000 meeting.

Miller moved, Coffin seconded; 12 in favor, 1 abstained (Shiple), 2 absent (Robertson, Wiens,).

##### A.6 Update on motions from February 2000 SCICOM and EXCOM meetings

Hay noted that EXCOM endorsed SCICOM Motion 00-1-5 regarding the forwarding of ODP proposals to IODP.

#### B. Discussion of how to document scientific achievements of ODP

Hay summarized the history of drilling legs within the context of the various themes and initiatives of the ODP Long-range Plan.



### *Climate change*

Hay showed the geographic distribution of legs related to climate change among equatorial, temperate, subpolar, and polar environments. Piasias suggested also placing the achievements for climate change in a geological time perspective because geographic maps alone can give a misleading appearance. Miller noted for example that we have only scratched the surface of Paleogene and Cretaceous climate records.

### *Sea-level change*

O'Brien emphasized the importance of the Antarctic margin for sea-level studies. Miller said that the amplitudes of past sea-level change remain very poorly defined, but further drilling on atolls and guyots could yield valuable results despite the difficulty of poor recovery. He also noted that the depth limitations of the *JOIDES Resolution* have precluded drilling in very shallow water.

### *Carbon cycle, gas hydrates, and fluids.*

D'Hondt thought that the list of achievements on the carbon cycle should include studies devoted to the late-Paleocene thermal maximum (LPTM). Miller said that the carbon cycle lies behind almost everything we do. Piasias viewed Arctic drilling as the best chance for gaining new insight on these topics. C. Moore suggested that gas hydrate studies must advance from an exploratory stage to a process-oriented approach. Morris expected to see increasingly important contributions from hydrogeology.

### *Microbiology*

C. Moore mentioned that Leg 146 contributed to early achievements in microbiology. D'Hondt believed that microbiology still represents only a minor component of most studies. Morris suggested that perhaps microbiology should also move toward a process-oriented approach.

### *Hydrothermal processes*

Ludden and Morris referred to several existing proposals concerning hydrothermal processes in various settings. Coffin noted that we have not yet studied hydrothermal processes on a large igneous province (LIP). D'Hondt added that we also have not looked at cool hydrothermal systems such as mud volcanoes.

### *Subduction zones*

Bloomer stated that an opportunity now exists to quantify subduction zone processes. Morris noted that most proposals related to subduction zones refer to present-day systems.

### *Mantle dynamics and ocean crust studies.*

Morris mentioned an upcoming Caribbean LIP proposal, but noted the failure of ODP to drill a deep hole and sample a complete, intact section of oceanic crust. Bloomer also lamented the lack of a plan for drilling a deep hole, especially after the request for proposals (RFP) to do so. He described Hole 735B as one of the greatest successes for the hard-rock community and for enhancing knowledge about ophiolites. Ludden cited the failure to drill on a ridge axis.

### *Lithosphere deformation and earthquake processes.*

Coffin thought that the program could make major progress on these topics if the ship returns to the western Pacific. He would also include the ION legs as achievements under mantle dynamics. C. Moore advocated the benefits of focusing on a few carefully selected sites, rather than spreading resources too thin.

## **C. Leg reports**

### **C.1 Leg 187 – Australia-Antarctic Discordance**

The committee did not hear a report on Leg 187 because neither of the co-chiefs could attend the meeting as scheduled.

## **C.2 Leg 188 – Prydz Bay**

Phil O'Brien reported on Leg 188 to Prydz Bay, Antarctica. In brief summary, the alternate shelf site yielded good logs and sufficient core recovery to determine the local stratigraphy.

Palynological studies should provide a good estimate of the regional temperature range during the early Eocene. A change in sedimentation rate at the drift sites marks the onset of ice on the shelf, and debris flows in the prograding clinoforms on the rise indicate that the East Antarctic ice sheet reached the shelf edge only five times in the last 3 million years.

Coffin asked whether O'Brien saw a need for further drilling in Prydz Bay or elsewhere around Antarctica, given the need to modify the original seismic interpretations. O'Brien said that he would not drill again in Prydz Bay because sediment had accumulated more rapidly than expected during the early Miocene. They wanted to reach the bottom of the fan but ran out of time at the last site. Miller asked if Leg 188 recovered a section equivalent to that drilled at Site 739. O'Brien said that the results from Prydz Bay can better constrain the ages; they still found pollen in Oligocene deposits, though from an impoverished tundra flora. Pearson asked about the age of the sequence boundary. O'Brien identified the boundary as Eocene in age. Hay asked if the results could provide an estimate of sea-level change during the initial glaciation. O'Brien replied that the working models focus more on identifying the major driver of climate change.

## **C.3 Leg 189 – Southern Gateways**

Jim Kennett reported that Leg 189 experienced very good weather and met all of its major scientific objectives and more. They recovered continuous sections across several major stratigraphic boundaries, with the Oligocene interval proving most difficult to recover. The initial results support the hypothesis that the South Tasmanian gateway opened at the Eocene-Oligocene boundary. This event isolated the Antarctic continent, increased the ventilation of the surrounding oceanic system, and thus led to glaciation. Kennett showed a series of diagrams modeling the opening of the gateway and consequent changes in ocean circulation. They found no evidence of Antarctic glaciation during the Oligocene. The circumantarctic current and its unifying influence had not yet developed at that time, allowing regional variability in circumantarctic climate regimes.

Jansa asked about the rate of opening for the gateway. Kennett estimated a deepening of 1000-2000 m in a few million years. Keene asked about silica productivity. Kennett replied that the Eocene-Oligocene boundary coincides with a change in the diatom assemblage, with some indication for a slight change in siliceous productivity. Miller asked about the lack of core recovery in Oligocene intervals. Kennett suggested that regional patchiness of preservation and erosion might have played a role.

## **C.4 Leg 190 – Nankai Trough**

Greg Moore reported on Leg 190 to the Nankai Trough. He cited the objectives to document the structural and hydrologic evolution of the décollement, constrain the fluid flow and geochemical gradients through the deformation zone, and characterize the pre-deformation geology and geochemistry of the accreting sediment. Chloride profiles provide evidence of fluid flow along the décollement. Physical properties show a large decrease in porosity in the hemipelagic sediments under the weight of the trench sediments. The sediment cores contain no apparent evidence of the proto-thrust zone as seen on seismic profiles, but show strong deformation and fracturing within the décollement and episodic deformation at out-of-sequence thrusts. The entire frontal 40 km of the sedimentary prism has accreted and deformed in the last two million years. Operationally, the Kuroshio Current varied from 0-4 knots on a daily basis, but this caused no problems thanks to the upgraded station-keeping system. For the return to Nankai on Leg 196, Moore emphasized the importance of logging the reference sites in the east, but characterized the upper-slope sites as expendable.

C. Moore asked what produced the difference in taper. G. Moore supposed that a cut off of sands or the collision of seamounts could explain the taper. Robertson wondered about the mechanism for such rapid accretion and whether it has affected the de-watering history. G. Moore said that it would take more time to evaluate that question. Robertson also asked how the microbiology worked out. G. Moore replied that microbiology played only an ancillary role in the leg objectives, but the microbiologists seemed pleased with their results. Shipley asked about the sampling of oceanic crust. G. Moore said that they recovered 1 m of basalt at the western site. The CORK scientists asked not to penetrate basement at the eastern sites, but he anticipates more recovery of basement rocks in that area on Leg 196.

**Tuesday, 1 August 2000 ..... 1:30 PM**

## **SCICOM and OPCOM Joint Meeting**

### **D. Management and operations reports**

#### **D.1 NSF**

Paul Dauphin reported on the ODP budget for FY 2000, targeted at \$46.1M plus a carryover of nearly \$500K in uncommitted funds from FY 1999. He noted that EXCOM approved the program plan for FY 2001. On the membership front, Dauphin announced that Ireland has joined ECOD, NSF and China have begun crafting an MOU for the continued participation of China to the end of ODP, and JOI and PacRim have approached India about joining the program, but India has not responded. Dauphin reported on proposed NSF funding for ODP-related field programs. NSF has asked for a large increase in its overall budget for FY 2001 but does not expect further changes in national or international contributions to ODP.

Hay asked about funding for EarthScope. Dauphin said that the NSF budget no longer provides for EarthScope, but that could change in the next congressional session.

#### **D.2 JOI**

John Farrell reported on activities at JOI, including recent changes in personnel, planned changes in the management structure, and the formation of a management oversight committee among the JOI Board of Governors. Farrell described the selection of, and transition to, the new JOIDES Office at the Rosenstiel School of Marine & Atmospheric Science in Miami, noting the ongoing staff search for an international liaison from the U.K. Farrell reported on the FY 2001 Program Plan and showed the breakdown of the budget among the various program components and among individual drilling legs. He emphasized the risks of budget assumptions about fuel costs and the canceling of plans for refurbishing spare drill pipe. ODP received external funding from DOE, LExEn, and JAMSTEC in FY 2000 and expects additional funding from JAMSTEC and perhaps Schlumberger in FY 2001.

Farrell briefly mentioned some of the important issues identified in the PEC-V report and the overall response from JOI. He also reported on recent JOI efforts and strategy in public affairs. Farrell noted that JOI has started working on the ODP legacy, thus far primarily through the efforts of an intern who has begun compiling a citation database. He described a limited search for ODP publications in four prominent journals, comparing the results found manually versus those found using GeoRef. The two methods yielded complementary results, with the manual search seen as more inclusive and the GeoRef search as more efficient. Farrell also announced the availability of a new educational and promotional CD-ROM entitled "From Gateways to Glaciation."

Hay asked about the status of the COMPLEX report. Piasias said that the organizers of COMPLEX had submitted the final draft report to JOI. Farrell expected to receive the final edited version from the external contractor in August and distribute it in September or October.

### **D.3 TAMU**

Jack Baldauf reported on ODP activities at TAMU. He presented data showing the greatly reduced motion of the drill string using the new system for active heave compensation (AHC). He also described the limitations of the AHC and identified several remaining issues for achieving a fully tested and satisfactory operation. Baldauf mentioned a potential deep-biosphere policy issue regarding proprietary rights to biological materials sampled by ODP, and he gave a brief update on the Distance Learning Initiative. In reviewing the leg schedule, Baldauf noted a rescheduling of the HYACE test from Leg 191 to 194, with ship time shifted accordingly. Leg 192 to the Ontong Java Plateau and Leg 193 in the Manus Basin face potential clearance issues with the Solomon Islands and Papua New Guinea, respectively. The proponents and co-chiefs of Leg 199 to Hydrate Ridge have requested to postpone the leg until 2002 and reschedule it into a better weather window. Leg 200 may require an additional casing string to stabilize the hole for installing the ION observatory.

D'Hondt asked whether the AHC would eventually work with APC. Baldauf identified that as the next step. Shipley asked about the possibility of obtaining direct measurements of weight on bit rather than at top of the drilling rig. Baldauf hoped to get the necessary tools for such measurements on an upcoming leg. Coffin asked whether the new shipboard email system works or not. Baldauf explained that TAMU had revamped the entire email system and it now works after some initial bugs. Farrell asked about the possibility of operating in shallower water with the new beacon system. Fox placed the shallow depth limit now at around 50 m rather than 30 m as originally mentioned. He noted that industry does not use dynamic positioning in such shallow water, and ODP thus has to push the limits with the vendor. Skinner added that improved access to the newly declassified GPS data might eliminate the need for beacons altogether. Robertson asked about shipboard staffing and the low number of applicants for several upcoming legs. Baldauf replied that the size of the applicant pool could merely reflect the nature of those particular legs, but it never hurts to broaden the publicity of the leg schedule.

### **D.4 LDEO**

Dave Goldberg reported on past logging operations during Legs 188-191 and previewed those on Leg 193. Leg 188 tested the tools for logging-while-drilling (LWD) and measurement-while-drilling (MWD). Leg 189 tested the core-log integration software and provided a real-time display of LWD data in the sedimentology lab. Leg 190 successfully logged a reference site for correlation with the LWD data expected on Leg 196. Leg 191 deployed a high-resolution GR tool to improve the integration of multi-sensor-track (MST) and logging data. Leg 193 could employ a modified high-temperature core-barrel tool. Goldberg also noted other activities involving seismic-log integration and the log database.

Shipley wondered if the shear-log data mentioned in the Leg 190 report represent something new. Goldberg confirmed that these data reflect a new logging capability.

## **E. Committee, panel, and PPG reports**

### **E.1 EXCOM**

Hay reported on news from the two previous EXCOM meetings, including the charge to SCICOM for developing an ODP legacy document and a phase-out plan for the JOIDES science advisory structure. Hay also mentioned that EXCOM approved the general ship track for the remainder of the program and endorsed the intent of SCICOM to forward ODP proposals to IODP.

Pisias asked about the contractual obligation of ending ship operations in a U.S. port. Fox explained the contract and confirmed that it does contain such an obligation.

### **E.2 TEDCOM**

Alister Skinner reported briefly on the TEDCOM recommendations that OPCOM would review, emphasizing the need to measure the effects of the new system for active heave compensation

(AHC). He also stressed the importance of documenting the currently used ODP tools as a legacy for the future program.

### **E.3 ESSEP**

Neil Lundberg reported on the previous SSEPs meeting, noting that only two proposals went for external review. The SSEPs evaluated previous reviews for nineteen other proposals and received nine new pre-proposals, five new addenda, and six new APLs. Lundberg explained the meaning of the proposal grouping numerals assigned by the SSEPs. He then summarized the groupings assigned to the current set of proposals and advised about relevant proposals not yet forwarded to SCICOM.

### **E.4 ISSEP**

Julie Morris reported on the proposal groupings assigned by ISSEP and identified the proposals deemed most worthy of drilling before the end of the program.

Pisias asked whether the SSEPs discussed the Antarctic proposals in the context of devising the best overall strategy for a combined program. Lundberg replied that the SSEPs discussed priorities in that sense because of the overwhelming number of proposals they had to consider. They also discussed the rotation of watchdogs for those particular proposals.

### **E.5 SciMP**

Tom Janecek deferred the SciMP report until the OPCOM meeting.

### **E.6 SSP**

John Diebold reported on the recent SSP meeting, noting that panel had received an APL for the first time, concerning sites not directly related to another proposal. He stated that SSP favors the SciMP recommendation on submitting digital data to the site-survey data bank. Diebold also noted that SSP discussed membership issues and the upcoming phase-out period.

### **E.7 PPSP**

Mahlon Ball did not attend the meeting but submitted a written report from PPSP.

### **E.8 Extreme Climates PPG**

Jim Zachos delivered the final report of the Extreme Climates PPG. He explained that the group decided to focus on transient climates or abrupt climate change events that offer a large signal to noise ratio and good global correlation. They also elected to focus more on warming rather than cooling events, and consequently on the potential effect of rising greenhouse gas levels on climate. Zachos described several drilling proposals and legs designed by the PPG and identified the late-Paleocene thermal maximum (LPTM) and similar methane-related events as a particularly interesting and promising topic of study.

Coffin asked if the recommendation that ODP had not drilled properly in the Pacific Ocean for studying climate properties also implies a similar lack of proper drilling for such studies in the Atlantic and Indian Oceans. Zachos characterized the Pacific Ocean as critical for constraining global carbon models. D'Hondt noted the importance of the Pacific for also investigating the global nature of oceanic anoxic events. Miller commended the Extreme Climates PPG for a job well done.

### **E.9 Arctic's Role in Global Change PPG**

Martin Hovland reported on the interim progress of the Arctic PPG. The group recommends forming a detailed planning group for project management of Arctic drilling at least two years before the anticipated start of drilling. Preliminary estimates indicate that an Arctic drilling leg will cost up to twice as much as a standard leg. Hovland spoke of the need for contingency plans for ice management and site abandonment. He also outlined the content of the final report that the PPG will complete in 2001.

Hay asked if a suitable barge exists for drilling in the Arctic, and Hovland answered yes. D'Hondt asked if the estimated cost of an Arctic leg includes icebreakers. Hovland said yes and noted that an Arctic leg would require at least two icebreakers. Sweden has already committed the *Oden* for possible use by ODP, and such a project would ideally use a Russian nuclear-powered icebreaker as well. D'Hondt asked about dating of the available sediment cores from the Arctic. Miller noted that Arctic stratigraphy relies mostly on silicoflagellates for dating.

#### **F. International Continental Scientific Drilling Program (ICDP) activities**

Ulrich Harms provided background information on ICDP. He described past drilling projects in Lake Baikal, Owens Valley, and on Hawaii. Harms also described various pieces of drilling equipment acquired for future ICDP projects in Mexico, China, Japan, and elsewhere.

D'Hondt asked whether the ICDP drilling equipment could really withstand temperatures of 300-500°C. Harms confirmed that a cooling mechanism enables the drilling tools to withstand such temperatures. Ludden asked if the ICDP drilling barge could operate in a lagoonal, reef environment. Harms imagined that it could. Miller described the GLAD800 system as designed for water depths of less than 200 m and seas less than 1 m. Harms added that the rig could probably operate in deeper water if placed on a barge with dynamic positioning.

**Wednesday, 2 August 2000 ..... 8:30 AM**

#### **PARALLEL SESSIONS**

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#### **SCICOM Meeting** (chaired by Hay)

Bill Hay reconvened the committee meeting at 8:30 AM in a closed session for presenting and discussing drilling proposals. Participants included only the non-conflicted SCICOM members and alternate members, plus the chairs of SSEP and SSP. All other attendees with either a conflict of interest on a drilling proposal or else no direct role in reviewing the drilling proposals participated in the separate subcommittee meeting concerning the ODP legacy and JOIDES phase-out plan.

#### **G. Presentation and discussion of drilling proposals**

SCICOM began reviewing the scientific merits of thirty-three drilling proposals (see listing below under Item J) and five ancillary program letters (APL-10, 11, 12, 14, and 16). Each proposal and APL received approximately twenty minutes for presentation and summary of its objectives by the watchdogs, followed by comments from the other participants.

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#### **SCICOM Subcommittee I Meeting** (chaired by Miller)

Ken Miller called the subcommittee meeting to order at 8:45 AM. Participants included the two other conflicted SCICOM members, D'Hondt and Robertson, the chairs of TEDCOM and SciMP, and all other liaisons and guests with no direct role in presenting and discussing the drilling proposals.

#### **H. ODP Legacy**

Miller introduced the topic of documenting the ODP legacy and referred to the following charge from EXCOM.

**EXCOM Motion 00-2-5:** EXCOM requests SCICOM to develop an ODP legacy that includes, among other things, the following:

- a list of ODP's greatest hits,
- a database of publications related to ODP results, as already begun by JOI and TAMU,
- written documentation from SCICOM, the SSEPs, and other panels about major ODP-related results, by field, to accompany the list of greatest hits and the publications database,
- a description of major technical developments, from TEDCOM with help from LDEO and TAMU,
- a reply to the question "How well did ODP do in answering the questions originally asked?" This study should consider all phases of ODP (*i.e.*, it should extend back to COSOD 1).

EXCOM would like to receive a draft report on the ODP legacy at its June 2001 meeting.

Miller suggested using the ODP Long-range Plan (LRP) as a basic outline for the legacy document. He thought the document should include a one-page executive summary of accomplishments, a few pages of text per theme of the LRP, and a list of things that ODP did not accomplish. Miller said that if the group agreed with this general idea, they must identify the specific topics and authors as well as the audience of the legacy document.

T. Moore advised to minimize the length of the document. Dauphin suggested including good figures. Robertson said that it would simplify the editorial job to stipulate the length and format and to supply a template for use by multiple authors. He also wanted to identify the intended audience and exactly how the legacy document would benefit the new program. T. Moore noted that IPSC targeted the IODP Science Plan at informed scientists. Salisbury believed that the legacy document should also serve the purpose of convincing the funding agencies about the need for a new program, and the group agreed. Dauphin mentioned that USSAC intends to write a companion document for the IODP Science Plan, and they could certainly make use of an ODP legacy document. Robertson confirmed that the U.K. and other European countries also intend to prepare a companion document for the IODP Science Plan.

D'Hondt asked if the legacy document should consider only ODP. Miller said yes, according to the charge from EXCOM. Salisbury questioned the idea of making such a distinction because ODP has built upon the legacy of DSDP. Skinner suggested describing the things done by ODP that DSDP failed to do. Miller agreed that the legacy document should include a section showing how ODP built on the foundation of DSDP. Pezard preferred focusing on the achievements and ignoring the failures because the funding agencies might take an unfavorable view. Zachos suggested that some of the failures stem from a lack of time and the limit of having only one ship. He added that the mission of ODP expanded on the run as we answered old problems and encountered new ones.

Miller commended Salisbury for the list of achievements published in the recent Canadian ODP newsletter, and he asked whether JOI intends to produce another greatest-hits volume. Farrell said that USSAC and others have expressed interest in doing so, but JOI has only committed to compiling a database of publications. Robertson expected diminishing returns from a second greatest-hits volume but suggested extracting a list of them from the legacy document at a later stage. Pezard asked whether the greatest-hits list would have a different audience than the legacy document. Farrell noted that JOI and USSAC designed the previous greatest-hits volume primarily for educational and publicity purposes and not to sell the program for funding. Miller suggested that SCICOM could revisit the issue of producing a greatest-hits list after completing a draft of the legacy document.

The group assigned a working title of *Achievements and Opportunities of Scientific Ocean Drilling* to the legacy document. Miller discussed how to define the outline of the document based on the themes and initiatives of the LRP. Others suggested beginning with the reports of COSOD and

COSOD II. The group subsequently identified nine sub-themes under the heading “Dynamics of Earth’s Environment” and seven sub-themes under “Dynamics of Earth’s Interior.” They also identified a list of candidates for writing each section and noted that those responsible for individual chapters should highlight any particularly exciting or unexpected results. The group agreed that the legacy document should include a bibliography, dispersed section by section. The discussion then turned toward identifying a potential editorial review board. Further discussion ensued about the possibility of publishing a multi-volume report that would synthesize the results of the entire program.

Farrell reported on efforts at JOI to compile a database of publications on ODP results and noted an ongoing debate over whether to include abstracts and publications derived from DSDP. He mentioned the possibility of increasing the value of the database through various means, but with added cost and time, and he cited the problem of excluding papers because of the limits of keyword searches.

Pezard asked about the timeline of the JOI effort and whether this project represented strictly a U.S. effort. Farrell described the project as international in scope with no fixed timeline yet. JOI has an intern working on it and should complete it some time next year. Robertson asked if the search included only publications in English. Farrell saw that as the easiest way to start but not a necessary limit. D’Hondt asked about the difficulty of tracking the national origin of all authors on the papers. Others stressed the value of creating a usable database, searchable by scientific fields or for keywords. Farrell acknowledged the added value of categorizing each paper by fields or keywords, or the authors by nationality, but emphasized the cost and labor of doing so. Dauphin raised the issue of accountability for participating scientists, and Miller suggested trying to tie in the database with the publication requirements of ODP. The subcommittee concluded that SCICOM should strongly encourage JOI and TAMU to continue their efforts in creating a publications database.

The group then discussed the EXCOM request for a description of technical developments from TEDCOM, LDEO, and TAMU and wondered if it would suffice merely to endorse TEDCOM Recommendation 00-1-4. D’Hondt interpreted the EXCOM motion as intended more for identifying and publicizing the major technical developments rather than producing a user’s manual. Miller concluded that SCICOM should instead recommend producing a one-page summary of technical developments emphasizing how they contributed to the science program. D’Hondt and Pezard suggested that this effort should apply to all coring, logging, and laboratory tools and thus should involve SciMP as well as TEDCOM.

### **I. Phase-out plan for JOIDES Science Advisory Structure**

Miller referred to EXCOM Motion 00-2-3 that requests SCICOM to develop a draft phase-out plan for the JOIDES Science Advisory Structure, for review by EXCOM in June 2001. He then asked Ted Moore to give a brief progress report on the establishment of the interim IODP science advisory structure (iSAS). Moore reported that iSAS probably would resemble JOIDES closely in size and shape, though with an increase in Japanese membership and a decrease in U.S. membership. He expected that iSAS and JOIDES panels would meet in parallel until the end of ODP. For example, iSSEP should begin working as soon as possible, preferably by 2001. Moore noted that IPSC has not yet developed the mandates of the iSAS panels and committees or answered the question regarding to whom those committees would report, and he cited the difficulty of proceeding before establishing the necessary international agreements and funding arrangements.

Robertson said that other countries want to see what they will get for their money before deciding whether to join IODP. He recalled that ODP had developed the LRP under pressure from Council to move away from a proposal driven system, and he expressed concern that existing proposals designed for the current LRP might not fit the science plan of the new program. Farrell believed that ODP had not turned down any proposals because they did not fit into the LRP. Miller doubted



whether even the top-ranked ODP proposals could sustain the momentum to last for six to eight years before drilling in IODP. Moore stressed the importance of informing proponents whether they need to revamp their proposals, and he wants to establish the iSAS panels with the power to answer those types of questions. Srivastava questioned the need for iOPCOM. Moore replied that IODP would need advice from iOPCOM before 2003.

Farrell asked if any JOIDES committees would need to exist beyond 2003. Moore thought that ODP might still need some of the higher level committees for oversight. Dauphin stated that the U.S. would assume all obligations for ODP after the end of September 2003, when the current MOUs expire. Robertson suggested that some committees or panels might not need to hold formal meetings but instead could handle problems by email as they arise. Janecek suggested that panel meetings should occur only if the chair submits an agenda showing the need for a meeting. Dauphin noted that iSAS holds no legitimacy among the current ODP partners. Furthermore, the JOIDES advisory structure must execute all tasks required by the existing MOUs. He therefore advised against the idea of dismantling the JOIDES advisory structure or abandoning its meeting schedule before the end of ODP.

Miller supposed that SCICOM, for example, could meet again in 2002, perhaps only briefly, but in succession with iSCICOM, and he asked for input on the tasks envisioned for SCICOM until ODP ends. Robertson thought that the program would need continuing input from SCICOM for prioritizing drilling sites and approving the recommendations of TEDCOM and SciMP. Miller suggested that OPCOM should continue serving as a subcommittee of SCICOM and meet as needed until 2003. The subcommittee also believed that SSP and PPSP should remain active until the end of ODP drilling, and they viewed it as appropriate for PPGs to work on future planning.

Miller raised the question of whether the SSEPs need to continue beyond 2001 and whether they should contribute toward documenting the ODP legacy as mandated and requested by EXCOM. Robertson worried about giving the impression of more of the same if the SSEPs continue, but he recognized the importance of having an overlap between the old and new panels. Moore expected that many current SSEP members would also serve on iSSEP and thus might not have time for working on the ODP legacy. Dauphin noted that SCICOM has the right to seek help on the legacy document and should logically turn to the SSEPs. D'Hondt added that the SSEPs would also still have to evaluate APLs. Dauphin said that proponents must feel that their proposals receive proper shepherding until the end of the program. He noted that IWG presently has nearly the same membership as ODP, except the U.S. and Japan will have equal representation on the new panels.

D'Hondt questioned whether the current panel chairs should continue serving or rotate as scheduled. Moore suggested having different chairs for JOIDES and iSAS panels. Robertson favored the idea of parallel advisory structures because that would allow the greatest flexibility. Farrell said that the U.S. has no funds available to support the phase-in of the new program before October 2003. Pezard agreed that JOIDES and iSAS committees should have overlapping memberships but not overlapping duties. Dauphin noted that JOIDES has already participated in planning for IODP, and he imagined that the national program committees would eventually say how they want to staff the IODP panels. Dauphin hoped that NSF and STA could reach an agreement soon on the IODP management structure and thus lay the foundation for defining the IODP advisory structure.

Miller noted that EXCOM Motion 00-2-3 also requests JOI and the JOIDES Science Advisory Structure to develop options for the long-term maintenance of the ODP database, JANUS database, core repositories, and other ODP legacies, for review by EXCOM in January 2001. After a brief discussion, the subcommittee decided that SCICOM should direct SciMP to continue its activities in this regard. Miller felt satisfied with the accomplishments of the subcommittee regarding the phase-out plan and suggested forwarding the recommendations to EXCOM in January 2000, pending approval from the rest of SCICOM (see SCICOM Motions 00-2-15 and 00-2-16 below).

**PARALLEL SESSIONS**

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**SCICOM Meeting**

SCICOM reconvened at 8:30 AM in a closed session with only the non-conflicted members and alternate members, plus the chairs of SSEP and SSP. Once again all other attendees with either a conflict of interest on a drilling proposal or else no direct role in reviewing the drilling proposals participated in the separate subcommittee meeting.

**G. Presentation and discussion of drilling proposals (continued)**

SCICOM finished reviewing the scientific merits of thirty-three drilling proposals and four ancillary program letters (APL), as begun the previous day.

**J. Vote on scientific ranking**

SCICOM excluded Proposal 499-Rev (Equatorial Pacific ION) from ranking and forwarded it directly to OPCOM for possible scheduling, as stipulated in SCICOM Motion 99-2-22.

**SCICOM Motion 99-2-22:** SCICOM recognizes the importance of completing the high-priority ION sites and thus intends to schedule Proposal 499-Rev before the end of the current program. SCICOM will forward this proposal to OPCOM for possible scheduling at the August 2000 meeting.

SCICOM decided not to rank Proposal 478-Full4 (Eastern Nankai Subduction Processes) and Proposal 520-Full3 (Kyushu-Palau Ridge) because the proponents of these two proposals had not responded to previous comments and requests of SCICOM and the SSEPs.

SCICOM then voted by closed ballot to establish a global scientific ranking for the thirty remaining drilling proposals, as summarized below.

Rank	Proposal	Mean score	Std. dev.
1	533-Full2 Arctic Ocean	5.20	5.31
2	534-Full Shatsky Rise	5.80	5.75
3	525-Full MAR Peridotite	7.93	6.05
4	571-Full Peru Biosphere	8.13	4.69
5	505-Full3 Marianas Conv. Margin	8.93	8.30
6	455-Rev3 Laurentide Ice Sheet	9.27	6.65
7	482-Full3 Wilkes Land	10.40	5.93
8	544-Full2 Costa Rica	10.87	7.76
9	559-Full Walvis Ridge	11.73	6.06
10	564-Full New Jersey Shelf	12.40	6.13
11	539-Full2 Blake Hydrates	12.80	6.13
12	512-Full2 Core Complex	13.27	6.09
13	522-Full2 Fast Spreading	14.93	6.40
14	577-Full Demerara Rise	14.93	9.01
15	549-Full2 Arabian Sea OMZ	15.20	6.57
16	560-Full Woodlark Basin	15.33	9.27
17	514-Full4 Maldives	15.53	8.14
18	537-Full3 Protoseismogenic Zone	17.47	9.79
19	551-Full Hess Deep	17.93	8.09
20	489-Full2 Ross Sea	18.47	6.59
21	545-Full2 Juan de Fuca Fluid Flow	18.80	5.70
22	519-Full2 Sea-Level Rise S Pac.	19.07	7.89

23	553-Full	Cascadia Margin	19.27	3.95
24	570-Full	East Pacific Rise	20.47	5.37
25	555-Full2	Crete	21.07	6.77
26	566-Full3	Nankai Hydrates	22.00	6.37
27	477-Full2	Okhotsk and Bering Seas	22.27	8.88
28	535-Full2	735-Deep, Slow Spreading	24.67	5.26
29	521-Full5	Indus Fan	24.87	5.80
30	503-Full2	Weddell Basin	25.27	4.70

In addition to Proposal 499-Rev, SCICOM agreed by consensus to forward the top twelve ranked drilling proposals as well as APL-10 and APL-14 to OPCOM for possible scheduling.

**SCICOM Consensus 00-2-3:** SCICOM decides to forward the top twelve ranked drilling proposals plus APL-10 and APL-14 to OPCOM for possible scheduling.

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**SCICOM Subcommittee I Meeting** (chaired by Miller)

**H. ODP Legacy (continued)**

The subcommittee reviewed the plan drafted yesterday concerning how to document the ODP legacy. Miller explained that the subcommittee had thus far: developed an outline of themes using the LRP, COSOD, and COSOD II reports; proposed a series of potential authors, indicating the preferred lead authors; and proposed an Editorial Review Board of 4-5 scientists to shepherd the legacy document. The subcommittee had also concluded that the target audience should include EXCOM, national science boards, and the general scientific community. The group then discussed the idea of holding general science meetings or workshops related to the four major themes of the legacy document. These meetings would serve to determine and evaluate its final content.

**I. Phase-out plan for JOIDES Science Advisory Structure (continued)**

The subcommittee completed its work on the phase-out plan the previous day and thus did not discuss it further here (see Item Q for the related motions approved by the full committee).

**Thursday, 3 August 2000 ..... 1:00 PM**

**PARALLEL SESSIONS**

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**SCICOM Subcommittee II Meeting** (chaired by Coffin)

The majority of SCICOM, excluding those members serving on OPCOM at this meeting (Hay, Moore, Pias, Robertson, and Shipley), met in a separate session parallel with OPCOM. With Pearson alternating for Robertson as the U.K. representative, the committee determined that it held the requisite membership quorum to act with full authority.

**K. Status of PPGs**

**K.1 Deep Biosphere PPG and microbiology recommendations**

Steve D'Hondt reported on recent progress in establishing and using the microbiology lab aboard the *JOIDES Resolution*. He noted the scientific achievements thus far, through Leg 190, but suggested that microbiology has not yet fully integrated itself into the routine shipboard activities.

Keene asked about the availability of documents describing the shipboard microbiology facilities. Coffin asked whether a position description existed yet for shipboard microbiology. D'Hondt characterized both as works in progress.

Nils Holm presented a mandate drafted by John Parkes for a proposed microbiology oversight group. He also presented a detailed review of the proposed mandate regarding development and assessment of standard protocols, quality control and data interpretation, and promotion of deep biosphere opportunities in ODP. Holm concluded that SCICOM should refrain from establishing a microbiology oversight group at least until the PPG submits a final report and the SSEPs have evaluated it.

Morris thought that the Deep Biosphere PPG had communicated poorly with the SSEPs from the beginning, partly because of a lack of prior ODP involvement and an uncertainty of how to fit in. Lundberg suggested asking the entire group for a final report.

## **K.2 Other PPGs**

The committee discussed the status of the other PPGs. Morris stated that in March 2000, the SSEPs Chairs requested final reports from the chairs of the Deep Biosphere, Shallow-water Systems, and Extreme Climates PPGs. Only the latter group responded. Lundberg noted that the Shallow-water Systems PPG informally requested SCICOM to extend their term. The SSEPs chairs asked this group to justify their request in writing, but again have not received a response. Lundberg rated the Extreme Climates PPG report as excellent and said that the Gas Hydrates PPG submitted a good report that needs only minor revisions. He described the Climate and Tectonics Links PPG report as brief and lacking specific recommendations for a drilling program.

Morris characterized the draft Architecture of Oceanic Lithosphere PPG report as strong on scientific issues but weak on the technical aspects of drilling. It also lacks an executive summary. The AOL PPG apparently discussed drilling strategies and techniques in their meeting, however, and perhaps could add this to their final report. Phillippe Pezard, a member of the AOL PPG, said they spent their whole first meeting trying to decide what their mandate meant and how they should proceed. Miller wondered how to get a final report from all of the groups and recommended trying to repair any damaged communication lines. Coffin thought it looked like the SSEPs chairs had succeeded in establishing good communication with the newest PPGs. Lundberg said it would help to have more than one liaison between the SSEPs and each PPG.

## **L. Discussion of panel chairs, memberships, and liaisons**

Coffin informed the committee about upcoming membership rotations on various JOIDES panels. He noted that SCICOM must name a successor to the current SciMP Chair, who would finish his term after the next meeting. Coffin expected that Janecek would present a recommendation from SciMP tomorrow.

The committee decided to retain the current SCICOM watchdogs for the Arctic, Deep Biosphere, and Hydrogeology PPGs (D'Hondt, Holm, and Fisher, respectively) and the liaison for ICDP (Rea). They also nominated new liaisons for InterMargins (Wiens), InterRidge (Holm), IMAGES (Mayer), and PAGES (Hay).

Ludden expressed dismay about the lack of international panel chairs, noting that JOIDES would not have any non-U.S. panel chairs as of January 2001, except for the Arctic PPG. Coffin noted the opening for a new SciMP Chair. Rea thought that an ability and willingness to do the job ought to count more than nationality in appointing panel chairs.

<b>SCICOM Motion 00-2-4:</b> SCICOM notes the current imbalance between U.S. and non-U.S. panel chairs and recommends establishing a balanced representation as soon as possible.
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Holm moved, Miller seconded, 11 in favor, 1 opposed (Rea), 1 abstained (Pearson), 2 absent (Hay, Pisias).

## **M. Other matters**

### **M.1 Guidelines for approving second post-cruise meetings**

The subcommittee considered a draft motion to establish formal guidelines for approving second post-cruise meetings, as put forth by the ODP managers.

**SCICOM Draft Motion:** SCICOM requests that all second post-cruise meetings of the shipboard scientific party occur in ODP member countries, with approximately 50% in the U.S. Whenever possible these meetings should occur in conjunction with other international science meetings. The choice of a meeting location should not depend on the desire to hold an affiliated geological field trip.

Schuffert explained the history behind the proposed motion and noted that the JOIDES Office, TAMU, and JOI all agreed upon the usefulness of these guidelines. Pearson questioned the relevance of this matter to SCICOM. Although the committee recognized the value of such guidelines, they concluded that this matter did not involve any scientific issues that justified input from SCICOM and therefore declined to vote on the proposed motion.

### **M.2 Establishment of a detailed planning group (DPG) for Arctic drilling**

Given the high ranking of Proposal 533-Full2, the subcommittee discussed the idea of establishing a detailed planning group (DPG) for Arctic drilling. One SCICOM member suggested that the DPG should include some of the proponents of this proposal plus various experts on the technical aspects of Arctic operations. The committee voted to establish the DPG but did not decide upon its mandate or membership.

**SCICOM Motion 00-2-5:** SCICOM establishes a detailed planning group (DPG) to investigate the logistical, technological, and budgetary requirements for Arctic drilling related to Proposal 533-Full2. The DPG will prepare a report on these issues for SCICOM to review in August 2001.

Rea moved, Moore seconded, 12 in favor, 3 absent (Hay, Hodell, Piasias).

### **M.3 Request for proposals for drilling deep holes**

The subcommittee also debated what to do about the past request for proposals (RFP) for drilling a deep hole. Bloomer suggested forming a DPG to address this issue. D'Hondt did not want to devote one of the remaining ODP legs to drill a deep hole just for the sake of doing it. Morris regarded the idea as having scientific as well as technical value and worried about losing those proponents from the program. Pezard agreed about the need to encourage that side of the scientific community, and he cited the mere existence of the Architecture of Oceanic Lithosphere PPG as an acknowledgement of the importance of drilling a deep hole. He noted that drilling through an intact section of ocean crust represents one of the main objectives of the LRP and a pervasive theme of the AOL PPG final report. Ludden did not see any need for a DPG and suggested that the watchdog letters to the proponents could stress the importance of deep drilling. Rea noted that the IODP science plan should guide the science of the new program.

### **M.4 Ancillary Program Letters**

The subcommittee debated whether to establish a more limited definition for Ancillary Program Letters (APL). Morris explained that several of the recently submitted APLs seem more like proposals for separate mini-legs rather than strictly ancillary programs. Lundberg recognized the possible advantages of drilling a few mini-legs, but only after appropriate panel and peer review. T. Moore noted that the program had previously accommodated APLs successfully with Palmer Deep and Saanich Inlet, but those projects took only one or two days of drilling time. The subcommittee agreed that APLs should not take significant time away from a scheduled drilling leg. They suggested limiting APLs to the general vicinity of the ship track and to no more than a few days of ship time, though with some room for flexibility.

**SCICOM Motion 00-2-6:** SCICOM requests the JOIDES Office to revise the ODP guidelines for submitting Ancillary Program Letters as follows, with new text shown as underlined:

Ancillary programs are generally limited to the general geographic area of leg operations and to no more than 2-3 days of dedicated ship time. Requests for accommodation of ancillary programs in the Ocean Drilling Program should be submitted in the form of an Ancillary Program Letter to the JOIDES Office in accordance with normal proposal deadlines.

Rea moved, Pias seconded, 15 in favor.

#### **N. SCICOM Subcommittee I report**

Miller explained the rationale behind the development of four draft motions during the separate subcommittee session concerning the ODP legacy and JOIDES phase-out plan (see Items H and I above). He presented an outline for a legacy document based on the initiatives of the LRP, COSOD, and COSOD II. The subcommittee submitted a list of suggested writers for each sub-theme of the legacy document and nominated potential members for an editorial review board with expertise in each of the four proposed main themes.

Pearson asked where the evolution of marine biota fit within the proposed outline. Miller suggested that this topic fit under the sub-theme related to ocean history. Pias suggested changing the sub-theme from ocean history to earth history. Moore could not recall any proposals that addressed the evolution of the biosphere. Pearson stressed that ODP had produced the best examples available for evolution of species. Morris suggested that the SSEPs could serve as an editorial review board for the legacy document. The committee deferred voting on the draft motions until the next day (see Item Q below).

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#### **OPCOM Meeting**

OPCOM met in parallel with the SCICOM Subcommittee II. The OPCOM minutes appear separately.

**Friday, 4 August 2000 .....8:30 AM**

#### **SCICOM and OPCOM Joint Meeting**

#### **O. Items forwarded from OPCOM**

#### **O.1 OPCOM consensus items**

**OPCOM Consensus 00-2-1:** If and when funds become available, OPCOM recommends that JOI allocate funds for the following two projects, in priority order:

1. Purchase of an off-the-shelf shipboard digital core scanner by ODP-TAMU, as per SciMP Recommendations 99-2-12, 00-1-4, and 00-2-2.
2. LDEO-BRG and ODP-TAMU deployment of measurements-while-drilling technology on Leg 196 (originally scheduled for Leg 193) to evaluate the performance of the newly installed system for active heave compensation (AHC), as per TEDCOM Recommendation 00-1-2.

**OPCOM Consensus 00-2-2:** OPCOM recommends that LDEO-BRG reprogram the cost savings from the engineering of a fluid sampling tool (large-diameter tool) into modifying the high-temperature core-barrel sensor for Leg 193, as endorsed by SciMP in June 2000.

**SCICOM Consensus 00-2-7:** SCICOM approves OPCOM Consensus 00-2-1 and 00-2-2.

#### **O.2 TEDCOM recommendations**

Alister Skinner briefly explained the TEDCOM recommendations forwarded from OPCOM.

**TEDCOM Recommendation 00-1-1:** Following the excellent progress on the AHC installation and monitoring of its effectiveness, TEDCOM requests that SCICOM ensure that ODP-TAMU proceed quickly with the simulation studies which can now use real data. This is required in order to build a model, analyze existing observations, predict what may happen in different geological and geographical areas, and allow unexplained or aberrant behavior when using the AHC to be analyzed.

**TEDCOM Recommendation 00-1-2:** TEDCOM requests that SCICOM take steps to ensure immediate collaboration between ODP-TAMU and LDEO-BRG in order that their combined expertise be pooled to provide a comprehensive package of down hole and rig floor instrumentation for upcoming Leg 193 and any future sensor developments. If necessary both should prioritize their objectives and should be supported with funding if necessary in order that the studies shown by both parties at the current meeting be properly harnessed for effective use by the program.

**TEDCOM Recommendation 00-1-3:** TEDCOM requests that SCICOM ask ODP-TAMU to review their approach to poor core recovery in unconsolidated, non-cohesive sediments and when doing so bear in mind existing tools available in the geotechnical industry together with ones currently under development.

**TEDCOM Recommendation 00-1-4:** TEDCOM requests SCICOM to ensure that, before the end of the current program, ODP-TAMU have an up-to-date inventory of all their existing operational tools, and that each has a folio of up-to-date drawings and an operational manual, together with a digital copy of the information in a commonly available format. This is probably the best legacy that engineering can give to IODP, and it should therefore be a requirement that the Borehole Research Group at LDEO also comply with regard to all down-hole logging tools and associated software.

Hay noted that OPCOM had already endorsed all of the TEDCOM recommendations and asked SCICOM to approve them by consensus. No one objected or offered any further comments.

**SCICOM Consensus 00-2-8:** SCICOM approves TEDCOM Recommendations 00-1-1 through 00-1-4.

### O.3 SciMP recommendations

Tom Janecek briefly explained the SciMP recommendations forwarded from OPCOM.

**SciMP Recommendation 00-2-1:** SciMP recommends that a temporary working group be established to advise SciMP on the minimum capabilities needed for a routine core-log-seismic data integration program aboard the *JOIDES Resolution*.

**Mandate:**

- 1) Evaluate required shipboard facilities for acquiring and processing seismic data (U/G and VSP).
- 2) Evaluate required shipboard facilities for integrating and interpreting core-log-seismic data.
- 3) Evaluate the need for shipboard scientific and technical staff support.
- 4) Evaluate how to obtain, store, and distribute digital seismic data.
- 5) Evaluate the requirements for shore-based facilities and personnel.
- 6) Estimate the cost of different aspects of the seismic laboratory.

**Timeline:**

The evaluation of required seismic acquisition and processing facilities on the *JOIDES Resolution* (U/G and VSP) should be completed by December 2000 and a report and recommendations presented at the December 2000 SciMP meeting. The final report and recommendations should be presented at the June 2001 SciMP meeting.

**Members:**

Members should include (but not necessarily be limited to) one person from SciMP, SSP, TAMU, LDEO, a shipboard scientist participating in the ODP-LDEO FY2001 pilot study, and an industry representative.

**Meetings:**

One to two meetings held at the LDEO Borehole Research Group facilities.

Hay saw a clear need for this working group. The Terms of Reference allow SciMP to form *ad hoc* advisory committees for such purposes. Coffin suggested that the mandate should include interpretation as well as acquisition and processing of seismic data. Miller asked if the *JOIDES Resolution* has the capability now to do such interpretations. Reagan explained that the Borehole Research Group at LDEO has already installed IESX software onboard the ship to provide interpretation capabilities.

**SciMP Recommendation 00-2-2:** SciMP recommends that JOI direct ODP-TAMU to reallocate current fiscal year funds to move forward immediately with the purchase of a single-track, moving-sensor, line-scan digital imaging system.

Janecek stated that SciMP regards this piece of equipment as the highest priority scientific instrument intended for shipboard use. Rea asked how much the system would cost. Janecek estimated the cost at \$100K. Miller noted that ICDP has used such a system routinely for five years already, and ODP still does not have one. Hay suggested regarding this as a top priority, pending availability of the necessary funds.

**SciMP Recommendation 00-2-3:** SciMP recommends that all investigators who produce data using leg-specific, non-ODP scientific analytical equipment and instrumentation on board the *JOIDES Resolution* follow all standard ODP data policies and data moratoriums. In all cases, these data should be made freely available in the same way that other shipboard data are distributed.

Coffin noted that this item represented only a recommendation and not a mandate.



**SciMP Recommendation 00-2-4:** SciMP recommends that the ODP-IODP transition plan address the issue of long-term use of ODP boreholes, with particular emphasis on the distribution and archiving of data collected from these legacy holes.

Hay noted that this recommendation should go forward to IPSC for consideration.

**SciMP Recommendation 00-2-5:** To establish a protocol for the consistent linking of metadata with digital single-frame images (*e.g.*, thin-sections, scanned core photographs), SciMP recommends that ODP-TAMU purchase and implement the use of an asset-management software/database (*e.g.*, Extensis Portfolio or Cumulus Canto). The database generated should interface with JANUS, have SQL compatibility, and be able to export data in a long-term archive format.

Pisias expressed concern about purchasing off-the-shelf software that might lack support in the future. He suggested instead that ODP should adapt the JANUS database for this purpose. Janecek worried that waiting another year or more for JANUS compatibility might preclude the project from happening at all. He noted that ODP could always export the data into JANUS later.

Hay noted that OPCOM had endorsed all of the SciMP recommendations, though without knowing the specific membership of the working group in the first recommendation. SCICOM fully approved the SciMP recommendations by consensus.

**SCICOM Consensus 00-2-9:** SCICOM approves SciMP Recommendations 00-2-1 through 00-2-5.

#### **O.4 Presentation of drilling schedules**

Baldauf presented a single draft operations schedule through Leg 205. The proposed plan involved a rescheduling of several programs in late 2001 and early 2002, including Paleogene Equatorial Pacific (from Leg 198 to 199), Hydrate Ridge (from Leg 199 to Leg 204), and Southeast Pacific Paleogene (from Leg 201 to 202). Newly scheduled programs for 2001 and 2002 included the reduced version of Mariana Convergent Margin (added to Leg 195), Shatsky Rise (Leg 198), Peru Margin Deep Biosphere (Leg 201), Costa Rica Subduction Zone (Leg 203), and Equatorial Pacific ION (Leg 205). Baldauf noted that the proposed schedule places Leg 198 in a typhoon window.

Keene asked about the two APL considered by OPCOM. Baldauf replied that neither APL made it onto the schedule. C. Moore added that OPCOM viewed the highly ranked leg science as a priority and saw no compelling proposals among the APL. Ludden asked if OPCOM had devised an alternate scenario that involved sending the ship into the Atlantic Ocean. Baldauf answered no. Wiens thought that SCICOM had discussed scheduling the Mariana proposal as a full leg. He expressed concern that as a mini-leg it might subsequently drop off the schedule entirely. C. Moore explained that OPCOM interpreted the rankings fluidly to schedule as many high-priority proposals as possible. Morris noted that the SSEPs had grouped Mariana as a mini-leg. She also mentioned that the Leg 190 report by G. Moore implied that the operational plan for Leg 196 might change. Baldauf said that TAMU would examine that issue later this year.

Hay commended Baldauf and Fox for their hard work in preparing the draft operations schedule. He also noted that this schedule would require approval from EXCOM because it changes the FY2001 program plan.

#### **P. Vote on schedule (non-conflicted SCICOM members only)**

SCICOM recognized that although the full Mariana proposal lacked sufficient site-survey data, the mini-leg version did not. Several committee members wanted to devise a strategy for ensuring that the highly ranked Mariana proposal stays on the schedule regardless of budget constraints. Fox explained that Mariana would not fit elsewhere on the schedule, and in case of a budget shortfall

TAMU would present a list of possible cuts in the overall FY2001 program at the managers meeting in September. Farrell estimated that \$100-200K of uncommitted funds might carry over from FY2000 to FY2001. He also characterized the issue as a matter of timing concerning the availability and expenditure of funds and not just a matter of priorities. Hay suggested prioritizing Mariana above the other equipment expenses already identified as high priorities (see OPCOM Consensus 00-2-1 above). Other committee members agreed. Harms noted that ODP could perhaps use the digital core scanner of ICDP for one leg. With Hodell alternating for Miller, SCICOM passed the following motion.

**SCICOM Motion 00-2-10:** SCICOM prioritizes leg operational expenses for FY2001 over additional expenditures such as the purchase of a digital camera and measurements-while-drilling (MWD) work on Leg 196.

Moore moved, Holm seconded; 14 in favor, 1 absent (Pisias).

One SCICOM member questioned the overall time devoted by ODP for drilling three ION sites and suggested deferring the Equatorial Pacific ION leg until IODP, thus adding one month of scheduling flexibility to the remainder of ODP. A second member saw merit in reconsidering the necessity of committing now to drilling the final ION site, whereas another member argued in favor of honoring the previous commitment to this proposal. Baldauf stated that TAMU would prefer to schedule some proposal as Leg 205 now because that particular leg straddles the fiscal year boundary. Hay suggested leaving the Equatorial Pacific ION leg in the schedule but writing a letter to the proponents asking when they expect to install the instruments. Other members agreed, noting that SCICOM had scheduled legs in the past on a contingency basis. Bloomer wondered if SCICOM should devise an alternate plan now, in case the ION proponents respond that they cannot install their instruments until sometime after IODP begins drilling. Rea thought that SCICOM could wait until its next meeting to decide that if necessary. With Hodell alternating for Miller, SCICOM voted to approve the proposed operations schedule.

**SCICOM Motion 00-2-11:** SCICOM approves the following operations schedule for 2001 and 2002, contingent upon the proponents of Proposal 499-Rev informing us of the expected timeline for installing the ION observatory.

<b>Leg</b>	<b>Proposal</b>	
195	431-Rev	Western Pacific ION
"	505-Full3	Mariana Convergent Margin (South Chamorro Seamount mini-leg)
196	517-Full	Nankai II
197	523-Full	Hawaiian Hotspot-Emperor Seamounts
198	534-Full	Shatsky Rise
199	486-Rev2	Paleogene Equatorial Pacific Transect
200	500-Full2	H2O Observatory
201	571-Full	Peru Margin Deep Biosphere
202	465----	Southeast Pacific Paleoceanography
203	544-Full2	Costa Rica Subduction Zone
204	546-Full	Hydrate Ridge
205	499-Rev	Equatorial Pacific ION

Rea moved, Moore seconded; 14 in favor, 1 absent (Pisias).

**Q. Report and vote on motions drafted by SCICOM Subcommittees**

Miller presented two motions drafted by the SCICOM Subcommittee I in response to the request from EXCOM concerning the ODP legacy (see Item H above). The committee voted to approve the draft motions without further substantive discussion.

**SCICOM Motion 00-2-12:** SCICOM strongly endorses the activities of TAMU and JOI in assembling a database of publications related to ODP. We further encourage them to make this database searchable (e.g., by index terms, geological age, and geographic region). We recognize the current lack of allocated resources for these activities, and we encourage their financial support.

Miller moved, D'Hondt seconded; 15 in favor.

**SCICOM Motion 00-2-13:** SCICOM recommends that TEDCOM and SciMP, together with TAMU and LDEO/BRG, prepare a one-page summary for each tool (including drilling, coring, logging, and other measurement tools) developed by or for the ODP community, emphasizing how the tool contributed to the scientific results of the program. These summaries could serve as appendices to operational manuals and as a basis for compiling a technical reference document for the ODP legacy.

Miller moved, Coffin seconded; 15 in favor.

Miller then presented a plan for an ODP legacy document, also in response to the request by EXCOM (see Item H above). He explained that the legacy document should prove useful for international planning of IODP, for planning a series of meetings in 2002 to produce synthesis volumes of ODP results by theme, written in 2003 and published in 2004, and for producing a glossy greatest-hits volume.

**SCICOM Motion 00-2-14:** SCICOM endorses the following plan for preparing an ODP legacy document entitled *Achievements and Opportunities of Scientific Ocean Drilling*.

### **Outline**

#### **I. Dynamics of Earth's Environment**

- A. Earth's Changing Environment
  - 1. Rapid climate change
  - 2. Extreme climates
  - 3. Climate response to orbital forcing
  - 4. Causes and effects of sea-level change
  - 5. 180 million years of ocean history
- B. Sediments, Fluids, and Bacteria as Agents of Change
  - 1. Sediment processes and budgets
  - 2. Fluids in sediments and rocks
  - 3. Formation of gas hydrates
  - 4. Deep biosphere

#### **II. Dynamics of Earth's Interior**

- A. Transfer of Heat and Material from Earth's Interior
  - 1. Mantle and core dynamics
  - 2. Ocean crust and mid-ocean ridge processes
  - 3. Hydrothermal and sulfide mineral processes
  - 4. Subduction factory
- B. Lithosphere Deformation and Earthquake Processes
  - 1. Passive continental margins and rift environments
  - 2. Convergent margins and collisional settings
  - 3. Earthquake mechanisms

### **Contents**

Executive summary	5 pages
Short summaries of achievements for sixteen sub-themes	4-5 pages each
Introduction or statement of scientific issues and challenges	1 page
Bullets summarizing achievements and opportunities	1-2 pages
Summary of goals met	1 paragraph
Summary of future opportunities	1 paragraph
List of greatest hits (from bullets)	

### **Timeline**

SCICOM Chair invites Editorial Review Board (ERB)	1 September 2000
ERB and SCICOM Chair invite authors	1 October 2000
Authors and ERB compile bullets and circulate among community	Fall 2000
Authors and ERB compile final bullet list	1 February 2001
ERB provides final bullet list to SCICOM	1 March 2001
Completion of short summaries	1 May 2001
Executive summary and excerpt of greatest hits	1 June 2001

C. Moore moved, Rea seconded; 14 in favor, 1 abstained (Shipley).

Miller summarized the views of the subcommittee concerning the anticipated duties of each JOIDES committee and panel until the end of ODP. SCICOM must remain available to provide scientific advice on operational issues that may arise during ODP drilling. Most important, SCICOM must plan and implement a strategy for documenting the ODP legacy during 2001-2003. In addition, SCICOM may also have a role in cooperating with the nascent iSCICOM. OPCOM must remain available to evaluate operational issues during ODP drilling and should continue to exist as a subcommittee of SCICOM, meeting in person or by e-mail as needed in 2002-2003.

Although PPSP and SSP will have completed much of their work upon the scheduling of the last leg, they must remain available to advise on possible operational changes until ODP spuds its last hole in 2003. TEDCOM and SciMP should continue until at least 2003, advising not only ODP, but also IODP. The subcommittee viewed such planning activities as not only appropriate, but also as necessary to meet the objectives of the LRP and the mandates of the JOIDES Terms of Reference. The SSEPs will presumably turn over all active proposals to the new iSSEPs after the August 2001 scheduling meeting. Although most scheduling-related activities of the SSEPs will end in 2001, they must remain available through September 2003 to evaluate ancillary program letters (APL) and participate in documenting the ODP legacy, as requested by EXCOM and mandated by the JOIDES Terms of Reference.

**SCICOM Motion 00-2-15:** SCICOM proposes to EXCOM that all committees and panels of the JOIDES Science Advisory Structure remain extant through September 2003. Although the duties of these committees and panels may diminish greatly after September 2001, and some of them may not need to meet in person, the program will continue to require their advice on scientific prioritization (SCICOM, SSEPs), shipboard operations (OPCOM, PPSP, SSP), shipboard measurements (SciMP), and technical developments (TEDCOM). The maintenance of the JOIDES Science Advisory Structure through September 2003 will allow the greatest flexibility in the transition to the interim IODP science advisory structure (iSAS). We foresee that some or all of the JOIDES committees and panels may meet in tandem with their iSAS counterparts.

Miller moved, D'Hondt seconded; 15 in favor.

Coffin asked what had happened with the DSDP databases. Fox replied that the digital remnants went to NGDC while the analog data went to TAMU. D'Hondt suggested mentioning the DSDP database in the motion, but Reagan objected over practical difficulties. Coffin assumed that such additional measures would have significant budgetary implications.

**SCICOM Motion 00-2-16:** SCICOM directs SciMP to continue advising JOI, TAMU, and LDEO/BRG in developing options for the long-term maintenance of the ODP database, JANUS database, core repositories, and other ODP legacies.

Miller moved, Pias seconded; 15 in favor.

## **R. Review of watchdog letters**

SCICOM discussed the general content and format of the watchdog letters that the JOIDES Office would send to the lead proponents of the proposals considered at this meeting. Lundberg suggested that the letters should specify the submission deadline of 1 October 2000 for those proposals that may require another external review and the final deadline of 15 March 2001 for the last chance of scheduling in ODP. C. Moore noted that many recently updated proposals remain active but unlikely candidates for scheduling in ODP, and he suggested that SCICOM should try to avoid reconsidering those proposals next year. Sarg opposed the idea of deactivating a proposal and not forwarding it to IODP. Wiens noted that some proposals could only improve through a fresh start. Lundberg requested that proponents not receive any statement stronger than that SCICOM would most likely not schedule their proposal next year. Hay preferred indicating that SCICOM would definitely not schedule certain proposals and thus not reconsider them again next year.

SCICOM then reviewed the specific comments for each proposal, with assistance from the SSEPs chairs. Proposals that lie outside the expected area of operations for 2003 include 477-Full2, 482-Full3, 489-Full2, 503-Full2, 514-Full4, 521-Full5, 535-Full2, 537-Full3, 545-Full2, 549-Full2, 551-Full, 553-Full, 555-Full2, 560-Full, 566-Full3, and 570-Full. SCICOM agreed not to reconsider these proposals next year and instead forward them to IODP. Coffin suggested advising the proponents exactly when they could start submitting proposals to IODP. Malfait noted that IPSC suggested that iSSEP should begin reviewing proposals for IODP in 2001. Keene asked what

would happen to the APLs. Lundberg recommended encouraging the proponents of the APLs to submit full proposals.

## **S. IODP planning**

### **S.1 IWG Support Office**

Jennifer Peterson reported on administrative activities of the IWG Support Office. She outlined plans for publicizing IODP at various professional meetings in 2000 and 2001. Peterson also described a new IODP brochure, available soon in English, French, German, and Japanese.

### **S.2 NSF/IWG**

Malfait reported on NSF activities for IODP planning. He noted that the IODP website includes the minutes from all IODP planning meetings. Malfait presented a draft model of international arrangements for IODP. He anticipates two types of formal agreement, one for science and technical operations and another between NSF, STA, and other national funding agencies, similar to the current MOUs. NSF and STA hope to reach an agreement by mid 2001, with other agreements in place by early 2002 for the start up in October 2003. No intent exists to extend the present international agreements for ODP beyond September 2003. Malfait noted a formal joint statement by the Japanese science minister and NSF director that recognizes the ongoing collaborative effort for planning and implementing IODP. IWG has asked for help from JOIDES up to now, but sees a need over the next few years for a more independent group to begin planning IODP science activities. IWG will establish an international review committee for the IODP science plan, and Malfait outlined the schedule for the review process.

### **S.3 STA/OD21**

Yoshiro Miki reported on STA activities and the status of OD21. He said that actual construction of the riser drilling ship would begin in early 2001. Miki noted that many students and several members of the Japanese Diet visited the *JOIDES Resolution* during the recent port call in Yokohama. He also mentioned the ongoing preparations for the next IWG meeting in Tokyo. Miki stated that the Japanese government plans to reorganize next year. The number of ministries and agencies will decrease from 23 to 11, and STA and Monbusho will merge. Universities and research institutes will collaborate more closely, and JAMSTEC will take a larger role in oceanography and geosciences. JAMSTEC will also open an office in Washington, D.C. in October 2000. Miki expects severe competition among various science and technology items in the FY 2001 budget request, due by the end of August, with many ambitious projects proposed. He mentioned the possibility of establishing a new Japanese research institute for marine sciences that would involve participation of international scientists. Meanwhile, Miki encouraged all present to visit JAMSTEC if in the area.

Hay asked for details on the new research institute. Miki envisioned fifteen research positions at the start, increasing later to perhaps thirty. Miller suggested that perhaps speakers from the USSAC distinguished lecturer series could visit Japan.

### **S.4 European initiative**

John Ludden described the mandate of ESCOD related to IODP planning and said that a big science program such as IODP will most likely require coordinated European involvement. ESF, France, Germany, and the U.K. have committed funding for a technical coordinator, Alister Skinner, who will consider alternate platform possibilities. One of the next steps involves submitting a bid to the European Community to obtain extended funding for IODP planning efforts. The EC has agreed to hold a workshop in Brussels in November to define industry needs and interests in ocean drilling. Skinner added that he also hopes to explore options for industry involvement. The EC has funded the Fifth Framework Program for pan-European scientific cooperation. In addition, the European

Union has shown great interest in ocean drilling and wishes to move toward a more integrated European involvement.

C. Moore asked if PacRim expects to participate in IODP. Keene said that Australia plans to send Trevor Powell as a representative to IWG. He noted a strong level of interest among scientists, with a workshop planned to write a companion document to the IODP Science Plan for applying for funding, but final plans remain uncertain.

### **S.5 IODP Planning Subcommittee (IPSC)**

Hay explained the role of SCICOM in commenting on the IPSC report for forwarding to EXCOM. Ted Moore then began his IPSC report by encouraging SCICOM members to comment on the Conceptual Design Committee (CDC) report using the questionnaire available on the IODP website.

Moore outlined the IPSC proposal to establish an IODP interim Science Advisory Structure (iSAS) similar to the JOIDES Science Advisory Structure. He noted that JAMSTEC has volunteered to establish an iSAS support office similar to the JOIDES Office. IPSC recommends that JOIDES and iSAS panels should hold overlapping meetings during the transition phase beginning in 2001, with as little difference as possible in panel membership. The simplest scenario for iSAS involves an increase in the number of Japanese panel members and a decrease in U.S. numbers, but this depends upon the final agreement of IWG on representative membership and voting rights in the new program. Moore also outlined a schedule for when iSAS members should start attending JOIDES panel meetings as observers. For example, iSSEP should begin ranking proposals with regard to the IODP Initial Science Plan as soon as possible.

Farrell asked Moore to clarify the reporting structure of iSAS and whether the iSAS office would include an iSCICOM chair. Moore said that the iSAS panels must report to an oversight committee similar to EXCOM, but much else still depends on further negotiations. C. Moore asked how planning for riser drilling fits in the new advisory structure. Hay noted that PPSP considered at its last meeting how to do safety reviews for riser drilling and concluded that the process would require a long lead time of perhaps as much as five years. T. Moore said that IPSC expects to have a Detailed Planning Group (DPG) for each riser project and to have iPPSP begin working early. He invited PPSP to send a liaison to the next IPSC meeting.

Moore reported on the status of the IODP Initial Science Plan (ISP). Version 3.0 of the ISP has already gone to an outside editor and should appear on the IODP web site by the end of August. IPSC expects to deliver the ISP to IWG by 1 October 2000 and receive a response from them by early February 2001. Moore thanked Mike Coffin and the others involved in writing the ISP. Coffin thanked Nick Piasias and the organizers of CONCORD and COMPLEX for producing the documents vital to preparing the ISP.

Moore mentioned the need to obtain better cost estimates for all operational components of IODP. IPSC has discussed the possibility of subcontracting for overarching activities such as publications, database management, engineering development, logging, education and public relations. Moore highlighted the possibility of a new panel in IODP for industrial liaisons and stated that this panel might make TEDCOM unnecessary in iSAS. He noted that ODP has had success with placing individual industry scientists on JOIDES advisory panels, but not in developing contacts with individual companies, particularly in the U.S. IPSC intends to seek advice from professional societies and hopes to develop better contacts with upper-level management, grass-roots industry researchers, and government lease oversight boards.

Coffin wondered about the percentage of sites that ODP has drilled with industry versus academic data. Diebold doubted that ODP has used much industry data, but he predicted a growing trend with riser drilling. Sarg agreed that ODP could not have used much industry data because industry

did not work in deep water until recently. He also predicted an increasing opportunity to obtain data as industry continues moving into deeper water.

Moore presented a mandate for the industrial-liaison working group (ILWG), noting its approval by SCICOM in August 1999, and he identified the members whom IPSC had already appointed to the ILWG, including the co-chairs, plus other candidates under consideration. Moore stated that one of the co-chairs might play only a limited role because of other commitments. He then asked for comments and suggestions for additional candidates. Bloomer moved that SCICOM endorse the IPSC proposal on membership of the ILWG. Other SCICOM members offered additional names and initiated further discussion.

Malfait asked about the transition of duties from the ILWG to the proposed new committee in iSAS. Moore explained that the ILWG would pass recommendations on to IWG. Malfait stated concern about the potential for confusion with two groups involved in technical planning. He asked whether the ILWG would establish a model itself for industry involvement or if it would establish a process for the iSAS committee to follow. Moore answered that the ILWG would not establish a process per se but only develop models for iSAS to use in establishing the new committee. Malfait viewed the problem as a matter of defining the spectrum of interaction with industry rather than accomplishing a specific job. He advised taking a careful approach in developing cooperative deals with industry and emphasized the risk of creating an unfair competitive advantage or conflict of interest without knowing the identity of the operators in the new program.

Sarg suggested that the ILWG should include some actual working scientists with technical expertise from the major industry research labs and technical centers. He also recommended that IPSC should visit those places and explain what the IODP science plan could offer to industry. Moore doubted the value of focusing on involving the industry research labs. Sarg replied that many industry labs have adopted a new attitude because they realize that they cannot do everything in house. He advised that IODP identify where its research goals overlap with those of industry. Skinner added that TEDCOM had received considerable help from an industry laboratory. He disagreed with IPSC about how to interact with industry and about the entire proposed membership of the ILWG, citing their lack of expertise for advising on riser drilling and other technical aspects. Moore explained that the ILWG would only make recommendations to IPSC and IWG. Ludden questioned the need for a formal, structured group such as the ILWG. He noted the possibility that their efforts would overlap with those of the European initiative and suggested that individual program members should at least have a chance to nominate representatives. Piasias said that how the ILWG develops recommendations would depend on relations in individual countries.

Hay noted that the proposed group would have two co-chairs from the U.S. Miller suggested having one U.S. and one non-U.S. co-chair. Coffin also expressed concerns about having two U.S. co-chairs, especially considering the motion that SCICOM passed yesterday regarding the current imbalance of panel chairs among the program members (see SCICOM Motion 00-2-4). He regarded Europe and the U.S. as centers of the petroleum industry and thought that Europe should have a strong presence in the group. Coffin recalled the previously stated concerns about the commitment of one of the co-chairs and suggested appointing a third co-chair, preferably from Europe. He also suggested that the ILWG membership should include a representative from a seismic contractor. Salisbury suggested also contacting mining companies and not just the petroleum industry. Piasias emphasized the need for people who would get the job done and voiced support for the proposed group. Moore said that he wanted to move forward fast on this and not worry about having representative membership.

**SCICOM Motion 00-2-17:** SCICOM endorses the membership of the Industrial Liaison Working Group, as proposed by IPSC.

Bloomer moved, Shipley seconded; 14 in favor, 1 abstained (Hay).



## T. Other business

**SCICOM Consensus 00-2-18:** SCICOM bids fond farewell to Kensaku Tamaki. Ken helped SCICOM make the transition to the new advisory structure, provided advice on drilling ocean crust, and kept us informed on Japanese plans for the new program. We wish him well in his new role as chair of the InterRidge Office.

Presented by Miller

**SCICOM Consensus 00-2-19:** SCICOM sincerely thanks Ken Miller for his untiring efforts on behalf of ODP. Ken has outspokenly supported scientific ocean drilling, his advice and counsel have forwarded the goals of the project, and he has served this committee well, faithfully, and with his own special brand of enthusiasm. We wish him well in all future endeavors.

Presented by Rea

**SCICOM Consensus 00-2-20:** SCICOM notes with regret the last meeting of J. Casey Moore as a member of this committee. Casey has served ODP and its predecessor DSDP as a panel member, proponent, co-chief scientist, and willing source of advice and counsel. His thoughtful comments, thorough understanding of technical and scientific issues, and commitment toward crafting the best science for ocean drilling have proved invaluable to the program. He has helped SCICOM and all of ODP through hydrates, hiatuses, and wholehearted hurrahs for holes in the ocean floor. We thank Casey and have no doubt that we will see him again soon as IODP takes wing.

J. Casey Moore's not quite a druid;  
He's simply enamored with fluids.  
Alas he is done,  
Heading back to the sun,  
When we let him go we sure blew it.

Presented by Bloomer

**SCICOM Consensus 00-2-21:** SCICOM extends its heartfelt thanks to Gerard Bond for his keen insight, reviews, and discussions (IRD) during his tenure on this committee. We will miss the unique perspective that comes from a petrologist turned paleoclimatologist whose broad geological expertise spans hard rocks to Heinrich events. We wish Gerard continued success in his efforts to understand climate change in the North Atlantic and its societal implications, and we look forward to the day when "Bond cycles" become part of the public lexicon.

Presented by Hodell

**SCICOM Consensus 00-2-22:** SCICOM thanks John Ludden for his dedicated service to the Ocean Drilling Program. Despite some flexibility in nationality (having represented variously the United Kingdom, Canada, and France), he has always proved himself as a valued citizen of the international scientific community. We know that John thrives on having simultaneous membership in at least a half dozen international committees, and we suspect that his contributions to planning scientific ocean drilling have not ended.

John Ludden has donned many hats,  
But we have no problem with that.  
He's ne'er made a fuss,  
Though working with us  
Is really like herding large cats.

Presented by Bloomer

**SCICOM Consensus 00-2-23:** SCICOM thanks Emily Klein for her service on the committee. Her extensive knowledge of mid-ocean ridge petrology and geochemistry proved invaluable. We will miss her boundless enthusiasm, unmistakable voice, and constant support of ODP.

Presented by Wiens

**SCICOM Consensus 00-2-24:** SCICOM thanks Kate Moran for her contributions to ocean drilling over the past two decades. She has always brought energy and focus to the tasks at hand. We appreciate her continuing efforts to promote IODP in the Canadian academic, governmental and industrial communities, and we wish her well in her new position.

Presented by Moore

**SCICOM Consensus 00-2-25:** We thank Bill Hay for his sage chairmanship of SCICOM and OPCOM. His current stewardship builds on a remarkable four-decade history of contributing to scientific ocean drilling, including his pivotal leadership during the transition from DSDP to ODP. SCICOM has especially appreciated Bill's emphasis on essential scientific issues and his desire to keep the program focused on the most exciting problems. We wish him well in the post-SCICOM world as he explores and models the balmy Cretaceous climes.

Presented by Moore

**SCICOM Consensus 00-2-26:** SCICOM expresses its profound appreciation and thanks to the JOIDES Office staff, Warner Brückmann, Jeff Schuffert, Emanuel Söding, and Bettina Rohr, for their untiring energy, enthusiasm, and efficiency. Their combined efforts played an essential role in the smooth running of the program. We wish each of them all the best in the future.

Presented by Robertson

#### **U. Future Meetings**

Shanghai, China, 21-23 March 2001

Newport, Oregon, Summer 2001

*Meeting adjourned .....5:00 PM*