

# IODP Science Planning and Policy Oversight Committee

5<sup>th</sup> Meeting, 17 - 18 January 2006

Hotel Banana City Conference Center

Winterthur, Switzerland

## Science Planning and Policy Oversight Committee - SPPOC

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Makoto Arima	Department of Environment & Natural Sciences, Yokohama National University, Japan
Serge Berné	French Research Institute for Exploitation of the Sea (IFREMER), France
Michael Bickle	Department of Earth Sciences, University of Cambridge, United Kingdom
Yoshio Fukao	Institute for Research on Earth Evolution (IFREE), JAMSTEC, Japan
Susan Humphris <sup>1</sup>	Woods Hole Oceanographic Institution, USA
Gaku Kimura	Department of Earth & Planetary Science, University of Tokyo, Japan
Hermann Kudrass	Federal Institution of Geosciences and Natural Resources (BGR), Germany
Larry Mayer	Center for Coastal and Ocean Mapping, University of New Hampshire, USA
Judith McKenzie	Department of Earth Sciences, ETH Zürich, Switzerland
Kenneth Miller	Department of Geological Sciences, Rutgers University, USA
Nicklas Pisiás (chair) *	College of Oceanic & Atmospheric Sciences, Oregon State University, USA
David Rea	Department of Geological Sciences, University of Michigan, USA
David Scholl	School of Earth Sciences, Stanford University, USA
Eli Silver	Earth Sciences Department, University of California, Santa Cruz, USA
Kensaku Tamaki	Department of Geosystem Engineering, University of Tokyo, Japan
Yoshiyuki Tatsumi (vice chair) <sup>2</sup>	Institute for Research on Earth Evolution (IFREE), JAMSTEC, Japan
Hidekazu Tokuyama	Ocean Research Institute, University of Tokyo, Japan
Kaoru Tsujii	Research Institute for Electronic Science, Hokkaido University, Japan

\*Unable to attend.

<sup>1</sup>Acting vice chair for this meeting.

<sup>2</sup>Acting chair for this meeting.

## Liaisons, Observers, and Guests

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Jamie Allan	National Science Foundation (NSF), USA
Keir Becker (SPC)	Rosenstiel School of Marine & Atmospheric Science, University of Miami, USA
Steve Bohlen	JOI Alliance, Joint Oceanographic Institutions, Inc. (JOI), USA
Nobuhisa Eguchi	IODP Management International, Inc., Sapporo, Japan
Dan Evans	ECORD Science Operator, British Geological Survey, United Kingdom
Jeff Fox	JOI Alliance, Texas A&M University, USA
Dave Goldberg	JOI Alliance, Borehole Research Group, Lamont-Doherty Earth Observatory, USA
Hisao Ito	Center for Deep Earth Exploration (CDEX), JAMSTEC, Japan
Yoshihisa Kawamura	Japan Agency for Marine-Earth Science and Technology (JAMSTEC), Japan
Kenji Kimura	Ministry of Education, Culture, Sports, Science, and Technology (MEXT), Japan
Tsuyoshi Kogo	Ministry of Education, Culture, Sports, Science, and Technology (MEXT), Japan
Kelly Kryc	IODP Management International, Inc., Washington, D.C., USA
Hans Christian Larsen	IODP Management International, Inc., Sapporo, Japan
Bruce Malfait	National Science Foundation (NSF), USA
Catherine Mével	ECORD Managing Agency, Paris Institute of Geophysics (IPGP), France
Takao Miyazaki	Ministry of Education, Culture, Sports, Science, and Technology (MEXT), Japan
Frank Rack	JOI Alliance, Joint Oceanographic Institutions, Inc. (JOI), USA
Jeff Schuffert	IODP Management International, Inc., Sapporo, Japan
Kiyoshi Suyehiro	Japan Agency for Marine-Earth Science and Technology (JAMSTEC), Japan
Manik Talwani	IODP Management International, Inc., Washington, D.C., USA
Yasuhisa Tanaka	Ministry of Education, Culture, Sports, Science, and Technology (MEXT), Japan
Helmut Weissert	Department of Earth Sciences, ETH Zürich, Switzerland

# IODP Science Planning and Policy Oversight Committee

5<sup>th</sup> Meeting, 17-18 January 2006

Hotel Banana City  
Winterthur, Switzerland

## Executive Summary

### 1. Introduction

#### 1.1 Opening remarks and introduction of new chair and vice chair

**SPPOC Motion 0601-1:** The SPPOC recognizes Yoshiyuki Tatsumi as acting chair and appoints Susan Humphris as temporary vice chair for this meeting only.

*Mayer moved, Fukao seconded; 15 in favor, 1 abstained (Humphris), 1 non-voting (Berné), 1 absent (Pisias).*

#### 1.4 Approve meeting agenda

**SPPOC Consensus 0601-2:** The SPPOC approves the revised agenda for its fifth meeting on 17-18 January 2006 in Winterthur, Switzerland.

#### 1.5 Approve last meeting minutes

**SPPOC Consensus 0601-3:** The SPPOC approves the minutes of its fourth meeting on 15-17 June 2005 in Nagasaki, Japan.

### 5. SPC report

#### 5.2 Other SPC activity

**SPPOC Motion 0601-4:** The SPPOC accepts SPC Consensus 0510-5 and SPC Consensus 0510-14 and approves the revised terms of reference for the Scientific Technology Panel (STP) and the Engineering Development Panel (EDP), as described in STP Recommendation 0507-1 and EDP Recommendation 0509-1, respectively.

*Mayer moved, Kudrass seconded; 16 in favor, 1 non-voting (Berné), 1 absent (Pisias).*

### 6. SPPOC mandate and focus

**SPPOC Motion 0601-5:** The SPPOC decides to convene in an executive session to discuss its terms of reference and focus.

*Silver moved, Humphris seconded; 15 in favor, 1 non-voting (Berné), 2 absent (Pisias, McKenzie).*

**SPPOC Motion 0601-6:** The SPPOC recommends modifying its terms of reference as discussed at this January 2006 SPPOC meeting and submits a revised version to the IODP-MI board of governors for approval (see Appendix A).

*Humphris moved, Rea seconded; 16 in favor, 1 non-voting (Berné), 1 absent (Pisias).*

### 8. Long-range planning – IODP workshops

**SPPOC Consensus 0601-7:** The SPPOC approves the convening of four long-range planning workshops in FY2006 on the topics of the deep biosphere, fault-zone drilling, continental breakup and sedimentary basin formation, and a mission to the Moho. In addition, the SPPOC recommends a specific charge to the participants and steering committee of each of these workshops (see Appendix B for the four workshop charges).

**SPPOC Consensus 0601-8:** The SPPOC strongly endorses the Science Steering and Evaluation Panel (SSEP) recommendation for organizing an IODP workshop on geohazards in FY2007.

**SPPOC Consensus 0601-9:** The SPPOC recommends that the IODP-MI place an advertisement in *EOS* requesting community input for potential IODP workshops (see Appendix C for the recommended ad). The SPPOC long-range planning subcommittee will review the responses to this ad in consultation with the IODP-MI and distribute recommendations for potential FY2007 and FY2008 workshops to the full SPPOC for approval by e-mail vote.

#### **9. Mission concept – SPPOC discussion and actions**

**SPPOC Consensus 0601-10:** The SPPOC proposes defining a mission as an intellectually integrated and coordinated drilling strategy originating from the scientific community that (a) addresses a significant aspect of an IODP Initial Science Plan theme on a global basis over an extended period of the program, and (b) merits urgent promotion to achieve overall IODP goals.

**SPPOC Consensus 0601-11:** The SPPOC establishes an *ad hoc* working group to consider further how to implement the mission concept. The working group will consider input from the “small group”, the SPPOC, and the Science Planning Committee (SPC) and will deliver a final report for approval at the June 2006 SPPOC meeting. Members of the group will include Humphris as chair, Kudrass, Tsujii, and SPC chair Becker.

*[Note: the SPPOC passed the following motion by e-mail voting in late March 2006.]*

**SPPOC Motion 0603-1:** The SPPOC accepts the draft mission implementation plan as produced and revised by its own *ad hoc* working group.

*Humphris moved, Tatsumi seconded; 17 in favor, 1 non-voting (McKenzie).*

**SPPOC Consensus 0601-12:** Given the long lead-times required for riser drilling and other complicated projects, the SPPOC urges the Science Planning Committee (SPC) and the IODP-MI Operations Task Force (OTF) to assess the level of advance planning required for those types of projects beginning at the time the Science Steering and Evaluation Panel (SSEP) forwards any such proposals to the SPC.

#### **10. FY2007 science plan approval**

**SPPOC Motion 0601-13:** The SPPOC approves the FY2007 operations schedule of the *Chikyu*, the U.S. scientific ocean drilling vessel (SODV), and a mission specific platform (MSP), should the New Jersey margin drilling not occur in FY2006 as previously approved. The SPPOC also provisionally approves the proposed FY2008 schedules for the *Chikyu* and the SODV.

The FY2007-2008 operations schedule for the *Chikyu* will begin in September 2007 with NanTroSEIZE Stage 1 non-riser drilling and continue in 2008 with further NanTroSEIZE Stage 1 non-riser drilling and then NanTroSEIZE Stage 2 riser drilling after a period of maintenance and further testing.

The FY2007-2008 operations schedule for the SODV will begin in August 2007 and proceed as follows:

- Equatorial Pacific Paleogene Transect (Proposal 626-Full2)
- NanTroSEIZE Stage 1 (Proposals 603A-Full2, 603B-Full2, 603C-Full)
- NanTroSEIZE Stage 1 continued (Proposals 603A-Full2, 603B-Full2, 603C-Full)
- An expedition to be selected after the March 2006 SPC rankings
- Juan de Fuca Flank Hydrogeology III (Proposal 545-Full3)

The SPPOC commends the Science Planning Committee (SPC) and the IODP-MI Operations Task Force (OTF) for their thoroughness in considering all scheduling options and building some flexibility into the first year of dual-vessel operations, as well as for using the current hiatus in drilling to extend the scheduling beyond the next fiscal year, hence allowing for longer lead-times and better planning of IODP expeditions. [*Note: see SPC Motions 0510-21 and 0510-23.*]

*Humphris moved, Silver seconded; 13 in favor, 1 non-voting (Berné), 4 absent (Kimura, Miller, Piasias, Rea)*

### 12.1 SPPOC executive committee

**SPPOC Consensus 0601-14:** The SPPOC reclassifies its program-assessment working group (see SPPOC Consensus 0506-12) as a standing subcommittee. The subcommittee will consist of one SPPOC member (currently David Rea as chair), one Science Planning Committee (SPC) member, one external member, and a liaison from the IODP-MI. [*Note: SPC vice chair Jim Mori and Gretchen Früh-Green later agreed to serve on the program-assessment subcommittee.*]

**SPPOC Consensus 0601-15:** The SPPOC establishes an executive committee, or *kanji kai*, composed of the SPPOC chair, vice-chair, and one representative each, normally the chairs, from the long-range planning and program-assessment subcommittees. The *kanji kai* will serve to promote good communications with the IODP-MI between regular SPPOC meetings. The initial membership consists of Piasias, Tatsumi, Rea, and Scholl.

### 15. Thanks to the hosts

**SPPOC Consensus 0601-16:** The SPPOC thanks Judy McKenzie, Helmut Weissert, and Teresa Bingham Mueller for their dedicated efforts in planning and hosting this successful meeting and providing us with such comfortable and convenient accommodations and facilities. We thoroughly enjoyed the busy calendar of social events, including the late afternoon stroll through the streets of Zurich, the *Apero* with the delightful *Stadtpräsident* in the Baroque Room of the Rathaus Winterthur, the magnificent art collection of the Museum Oskar Reinhart, and the hearty four-cheese fondue on a cold winter night.

# IODP Science Planning and Policy Oversight Committee

5<sup>th</sup> Meeting, 17-18 January 2006

Hotel Banana City  
Winterthur, Switzerland

## Final Minutes

Tuesday

17 January

8:30-18:00

### 1. Introduction

#### 1.1 Opening remarks and introduction of new chair and vice chair

Yoshi Tatsumi opened the meeting at 08:30 and explained his duty as the appointed vice chair to serve as acting chair at this meeting, in the absence of the regularly appointed chair, Pisias. Tatsumi also explained that the committee needed to appoint a temporary vice chair for this meeting, in case he would have to recuse himself from any portion of the meeting. Silver nominated Humphris to serve as temporary vice chair for this meeting only. Tatsumi asked the committee for approval.

**SPPOC Motion 0601-1:** The SPPOC recognizes Yoshiyuki Tatsumi as acting chair and appoints Susan Humphris as temporary vice chair for this meeting only.

*Mayer moved, Fukao seconded; 15 in favor, 1 abstained (Humphris), 1 non-voting (Berné), 1 absent (Pisias).*

#### 1.2 Introduction of participants

Yoshi Tatsumi asked the participants to introduce themselves.

#### 1.3 Welcome and meeting logistics

Judy McKenzie welcomed everyone to Winterthur and explained the meeting logistics. Helmut Weissert described the planned social events, including dinner on Tuesday evening and a visit to a local art museum on Wednesday evening.

#### 1.4 Approve meeting agenda

Yoshi Tatsumi proposed adding Agendum 1.6 for declaring conflicts of interest, adding Agendum 5.2 on other SPC activity besides the FY2007 science plan, changing the title of Agendum 6.2.2 to reflect the preference of the IODP-MI, and changing Agendum 7.3 to a discussion of the mission concept instead of its implementation. He also proposed changing Agendum 6 to an entirely open session. Silver believed that the committee should still reserve some time for an executive session to discuss its role and mandate. Tatsumi agreed to convene an executive session under Agenda 6 and 7.

**SPPOC Consensus 0601-2:** The SPPOC approves the revised agenda for its fifth meeting on 17-18 January 2006 in Winterthur, Switzerland.

#### 1.5 Approve last meeting minutes

Yoshi Tatsumi asked for any comments or suggested changes to the minutes of the previous meeting. Without further comment, the committee approved the minutes by consensus.

**SPPOC Consensus 0601-3:** The SPPOC approves the minutes of its fourth meeting on 15-17 June 2005 in Nagasaki, Japan.

#### 1.6 Conflict of interest statements

Yoshi Tatsumi asked the committee and other meeting participants to declare any potential conflicts of interest, particularly regarding the proposals included in the FY2007 science plan.

**Proponents of proposals currently included in the FY2007 science plan:** G. Kimura (603-CDP3, 603B-Full2, 603C-Full NanTroSEIZE), Rea (626-Full2 Pacific Equatorial Age Transect).

**Proponent of proposal already approved as MSP expedition in FY2006 but possibly subject to delay until FY2007:** Miller (564-Full New Jersey Shallow Shelf).

Tatsumi concluded that G. Kimura and Rea could not participate in the discussion and approval of the FY2007 science plan, whereas Miller could participate unless the committee received immediate and definite news that the New Jersey expedition would not occur as scheduled in FY2006.

## **2. Highlights of funding agency reports**

### **2.1 U.S. National Science Foundation (NSF)**

Bruce Malfait had nothing substantive to add to the NSF report given in the agenda book. He noted that the USIO would report later on the status of the scientific ocean drilling vessel (SODV) project.

Mayer asked when the R/V *Marcus Langseth* would come on line for conducting site surveys as part of the U.S. oceanographic research fleet. Malfait expected it to enter service sometime in the summer or fall of 2006, though the shipyard for the conversion remained undecided. He referred to a number of site surveys already planned for supporting the IODP.

### **2.2 Japan Ministry of Education, Culture, Sports, Science, and Technology (MEXT)**

Yasuhisa Tanaka had nothing to add to the MEXT report given in the agenda book. Kenji Kimura reported that the lead agencies approved the FY2006 program plan in September 2005 for science and platform operating costs (SOCs and POCs) of \$22 million and \$25 million, respectively, and they agreed that the ECORD Managing Agency (EMA) could bring forward one POC unit from FY2007 to support mission-specific platform (MSP) operations in FY2006. He stated that the lead agencies approved the IODP-MI procedure for engineering development as it appears in the FY2006 program plan, but they had not yet approved the revised plan for redistributing DSDP and ODP cores without first having appropriate data management software in place, though that project might start in FY2006. Kimura anticipated that the lead agencies would provide FY2007 budget guidance by the end of January 2006. He announced that South Korea would soon join the program as a representative of an Asian consortium, Australia and India also still want to join the program, and the lead agencies had asked the IODP-MI to formulate a plan for new members. Kimura showed a timeline for platform operations through FY2008 and briefly outlined a scheme for classifying engineering development, with a total project cost of \$500,000 serving as an automatic division between engineering development and engineering science support.

Tatsumi asked about the progress of signing other members to the Asian Consortium. Tanaka mentioned discussions concerning other potential members and expected more progress after the signing of South Korea.

### **2.3 ECORD Managing Agency (EMA)**

Catherine Mevél had nothing substantive to add to the EMA report given in the agenda book. She mentioned the IODP town hall meeting planned for the April 2006 EGU meeting in Vienna and noted the EuroMARGINS call for pre-cruise and post-cruise science support.

### **2.4 China Ministry of Science and Technology (MOST)**

No representative from China could attend the meeting, and the committee received no report from MOST.

### **3. Highlights of program management report by IODP-MI**

Hans Christian Larsen outlined the various areas of management under the IODP-MI and highlighted the topics of education and outreach, data management, publications, drilling proposals, and workshops. He mentioned the IODP Web portal launched in May 2005 and referred to several other recent or planned outreach activities, including the bimonthly electronic newsletter, Town Hall meetings and exhibit booths at large international scientific meetings, a new exhibit for the Smithsonian Museum, and a documentary film production. Larsen cited the new IODP Site Survey Data Bank established at the University of California San Diego in May 2005 and opened to the community for service in August 2005. He characterized the new SSDB as still under development through 2006 and mentioned the proposal database currently under development. Larsen outlined the nearly completed plans for a new IODP information portal called the Scientific Earth Drilling Information Service (SEDIS), with a request for proposals for the first phase expected in March 2006 and for the second phase in late FY2006 or early FY2007. He also referred to the data management coordination group and task force meetings, the testing of the J-CORES database onboard the *JOIDES Resolution* in September 2005, the nearly completed curation management system and IODP metadata profile, and the development of a central registry of community members for distributing publications and newsletters. Larsen diagrammed three levels of IODP data flow and the links between the different program databases through a metadata-based portal. He listed the different types of IODP scientific publications, including the report series and proceedings produced by the IOs and the *Scientific Drilling* journal produced by the IODP-MI. Larsen reported that the IODP-MI had posted the final sample, data, and obligations policy online, implemented program-wide usage of DOIs, and would explore the possibility of open access electronic publications in the near future. He showed the draft cover of next issue of *Scientific Drilling*, due out in March 2006 and illustrated the breakdown of proposals submitted for the October 2005 deadline. Larsen summarized the activities since June 2005 for the long-range planning workshops scheduled for FY2006 and co-funded through partnerships with JOI, the ICDP, and InterRidge.

Mayer appreciated seeing the efforts to create a common metadata portal for coordinating the independent databases developed by the different IOs, and he wondered if it would include legacy data. Larsen confirmed that the system would definitely encompass legacy data. Humphris asked whether the system would always identify the database used to collect the data. Larsen answered that users could obtain that information from the system if desired. Mayer expressed surprise that the IODP-MI report did not mention any activities of the operational review task forces. Talwani replied that several such reviews had occurred, and the reports appear on the Web. He called it an oversight not to mention those reviews in this report and promised to include them from now on in the quarterly reports. Tsujii inquired about the community response to publications. Larsen reported receiving a lot of very positive response on the new journal, *Scientific Drilling*, whereas not much time had passed yet to receive feedback on the proceedings volumes. Humphris asked about the consistency of the proceedings format across the IOs. Larsen explained that the IOs would produce the content of the proceedings volumes and the IODP-MI would publish them all in a common format.

### **4. Highlights of implementing organization reports**

#### **4.1 U.S. Implementing Organization (USIO)**

Frank Rack reported on the operational outcome of Expeditions 311 Cascadia Margin Gas Hydrates and 312 Superfast Spreading Crust III. He noted several staff changes with the USIO, mentioned the integrated data model under discussion, and stated that the USIO would propose a simplified JANUS database model at the upcoming meeting of the Data

Management Coordination Group. Rack briefly described the status of the environmental impact statement for operating the U.S. scientific drilling vessel (SODV). He reported on the contract signed with Overseas Drilling Ltd. in December 2005 for the SODV project, with funds allocated for FY2005 and FY2006 but waiting authorization for FY2007. He also cited the selection process underway for a logging contractor. Rack showed the organizational chart of the SODV project and listed the membership of the oversight and advisory committees and several conversion design teams. He summarized what to expect of the converted vessel and said that the engineering design phase should finish by the end of May 2006 and the ship should enter the shipyard by October 2006.

#### **4.2 Center for Deep Earth Exploration (CDEX)**

Hisao Ito reported on the delivery of the *Chikyu* to JAMSTEC in July 2005 and the successful testing of the hydraulic piston coring system in November 2005 off the Shimokita Peninsula, at the eventual first test site of the riser drilling system. Ito presented the CDEX schedule for engineering development and expressed the view that such developments should comprise SOCs. He showed conceptual diagrams for long-term monitoring in the NanTroSEIZE boreholes and cited the various *Chikyu* drilling operations associated with NanTroSEIZE in FY2007-08. Ito expected the migration of legacy cores to the Kochi Core Repository in FY2006-07, with J-CORES used for core management in FY2008. He described the plans for further testing of J-CORES onboard the *Chikyu* in early 2006 and for making the J-CORES source code available as an open-source application. Ito announced the signing of a contract this month for a 3-D seismic survey of the Nankai study area beginning in April 2006.

Kudrass wondered how well the scientific advice provided by the SAS meshed with the mostly technology-driven nature of long-term monitoring. Tsujii inquired about the cost and feasibility of the monitoring system. Humphris asked if the monitoring plan called for fluid sampling. Ito replied that CDEX had certainly discussed those issues thoroughly with the proponents and would create a final plan in conjunction with the project management team. He described the system as feasible but without a firm cost estimate yet, and he identified fluid sampling as a very difficult prospect with no realistic request from the proponents so far. Kudrass asked about the quality of the first piston cores. Ito replied that they obtained reasonably good core from two sites, with only minor troubles.

#### **4.3 ECORD Science Operator (ESO)**

Dan Evans reviewed the mobilization and operational results of Expedition 310 Tahiti Sea Level and mentioned a very successful outreach program with two film crews onboard the drilling platform. He reported that they recovered over 600 m of core while drilling a total of 1100 m in thirty-seven holes at twenty-six sites, and they would complete the minimum measurements at the onshore science party beginning next month at the new Bremen core repository. Evans described the ongoing efforts to implement the New Jersey Shallow Shelf expedition in FY2006, with tenders issued imminently to five contractors, one co-chief scientist already chosen, and most of the budget secured. He cited several reasons that could still delay the project until FY2007, such as no funding from the ICDP, high tender costs, contractual problems or platform availability, LWD availability, clearance and permits, and visa delays.

Berné offered congratulatory support from his perspective as a participant on Expedition 310. He expressed concerns about the greater safety risks on MSP projects, with participants having closer access to drilling areas and equipment on the platform, and he asked about personnel training. Evans acknowledged the safety concerns and assured the committee that the ESO takes such matters very seriously. He explained that all participants receive training



by the crew at the start of an expedition, and ESO personnel receive more extensive survival training.

Talwani asked to elaborate on the problem with ICDP funding. Evans said that the ICDP had originally promised the proponents \$500,000 but recently decided to review a new proposal because of the time elapsed since the original proposal. Humphris lauded the efforts so far to conduct MSP expeditions on short notice and wondered if the program could do anything to gain more lead-time for implementing such projects. Mével characterized the short timeframe as essentially built into the system of having to get funding approval from all ECORD members and then having to deal with the uncertainties of contracting and mobilizing a platform.

## **5. SPC report**

### **5.1 Presentation of the FY2007 science plan**

Keir Becker explained the process for creating the FY2007 science plan and outlined the timeline from the lead agencies for developing the FY2007 operational schedule and program plan. He noted that only a modest amount of actual drilling would occur in FY2007 because of the timing of when the *Chikyu* and the new U.S. SODV would begin operating. Becker identified the thirteen proposals residing with the Operations Task Force (OTF) and available for scheduling as of June 2005. He presented SPC Motion 0510-21 on *Chikyu* operations for the NanTroSEIZE project. Becker cited the funding uncertainty for conducting the MSP expedition in FY2006 and presented SPC Motion 0510-24 on the necessity of drilling a three-site transect for achieving the scientific objectives of Proposal 564-Full New Jersey Shallow Shelf. He noted that the SPC did not recommend an additional MSP expedition beyond the one off New Jersey. Becker reported that the OTF ultimately presented two models for non-riser operations to the SPC, and neither model included Proposal 621-Full Monterey Borehole Observatory because of significant concerns about environmental clearances. He presented SPC Motion 0510-23 on the operations schedule for the new SODV and stated that it combined the best of both options presented to the committee, plus it left open the possibility of conducting Proposal 621 in FY2008 pending resolution of the environmental clearance issues. Becker diagrammed the overall operational timeline from late FY2007 through FY2008. He noted that the SPPOC technically only needed to approve the brief FY2007 portion of the schedule, but he hoped that the committee could at least provisionally approve the FY2008 plan.

Becker reviewed the operational plan for the four proposed phases of the NanTroSEIZE complex drilling project off the Kii Peninsula of Japan. He cited several implementation considerations, including funding of a 3-D seismic survey scheduled for April-June 2006, and said that the project management team had refined the operational stages. Becker outlined the operational breakdown for Stage 1 involving three expeditions each on the *Chikyu* and the SODV, and he gave a very notional timeline for completing all four stages of the project by sometime in 2012. Becker then summarized the objectives of Proposal 626-Full2 Pacific Equatorial Age Transect and identified several operational and logistical factors. He explained that the proposed drilling plan would require one and a half expeditions to complete and thus could represent an option for filling the open slot in FY2008. Becker also summarized the objectives of the second and final expedition derived from Proposal 545-Full3 Juan de Fuca Flank Hydrogeology. He again identified several operational and logistical factors and noted that sufficient lead-time existed to allow for the full engineering preparation.

Humphris stated that she attended the OTF meeting as a SPPOC liaison and came away very impressed with the level of thoroughness devoted to all of the possible operations. She

endorsed planning further ahead and favored giving provisional approval of the FY2008 schedule. Tokuyama asked the reasons for not including Proposal 477-Full4 Okhotsk and Bering Seas Paleooceanography in any of the scheduling options. Becker replied that most of the proposed drilling sites had not received EPSP approval as of June 2005, primarily because the proponents had not presented the data in an adequate manner, but the EPSP subsequently approved all of the sites in December 2005. McKenzie expressed concern about incorporating microbiology work in the Pacific Equatorial Age Transect expedition. Becker responded that participants of the recent microbiology mini-meeting also wanted to promote routine microbiological measurements, and he believed that the USIO had made great efforts to staff expeditions routinely with microbiologists as members of the science party.

Kudrass asked about the philosophy of splitting the non-riser drilling activity for the NanTroSEIZE project between the two drilling ships. He also worried about potential staffing problems in scheduling so many NanTroSEIZE expeditions in such a short time period. Becker answered that the operational strategy as determined by the project management team and the OTF reflects the scientific commitment to the entire project. He added that the OTF and the SPC had considered the staffing issue and deemed it as feasible to staff all of the expeditions. Larsen noted that the next issue of *Scientific Drilling* would include an article on the NanTroSEIZE project that should function as a good advertisement for staffing.

## **5.2 Other SPC activity**

Keir Becker reviewed the status of the various unscheduled proposals remaining with the OTF and identified the new proposals coming forward to the SPC for ranking in March 2006. He presented SPC Consensus 0510-5 and SPC Consensus 0510-14 on revising the terms of reference for the Scientific Technology Panel (STP) and the Engineering Development Panel (EDP), respectively, and gave an update on establishing the Industry-IODP Science Program Planning Group (IIS PPG). Becker described the third-party tools policy as in the final stages of development by the STP. He expected the policy to reach the SPC for approval in March 2006 and then move up to the SPPOC for approval at its next meeting.

Rack stated that the USIO had made some progress with the national marine sanctuary officials regarding Proposal 621-Full Monterey Borehole Observatory, but stewardship of the borehole remained a significant issue. Allan referred to concerns about the scope of the project and repeated experiments over the long term, and he said that each successive test might require a new impact statement. Scholl asked about the scientific objectives of the project. Becker explained that the SPC never actually ranked the proposal on a scientific basis but instead had approved it for scheduling solely with the intent of creating a test facility. Humphris asked if the proponents learned of SPPOC Consensus 0506-5 advising them to explore other areas. Allan confirmed that the proponents definitely know about the previous SPPOC consensus. Becker added that the IODP-MI had communicated with the proponents in the ongoing process of establishing the observatories task force. Mével mentioned that other proponents had already submitted another proposal for an alternative borehole test facility in the Mediterranean Sea. Mayer asked if any policy existed for deciding how long an unscheduled proposal should remain with the OTF. Becker replied that he had begun to address that issue with the OTF chair.

Tatsumi proposed considering the revised SAS panel terms of reference for approval the next day. On Wednesday, Becker briefly reviewed the proposed changes to the STP and EDP terms of reference and reported that the SPC had accepted the proposed changes. Tatsumi sought approval from the SPPOC. The committee approved the revised STP and EDP terms of reference without further comment.

**SPPOC Motion 0601-4:** The SPPOC accepts SPC Consensus 0510-5 and SPC Consensus 0510-14 and approves the revised terms of reference for the Scientific Technology Panel (STP) and the Engineering Development Panel (EDP), as described in STP Recommendation 0507-1 and EDP Recommendation 0509-1, respectively.

*Mayer moved, Kudrass seconded; 16 in favor, 1 non-voting (Berné), 1 absent (Pisias).*

## **6. SPPOC mandate and focus**

### **6.1 SPPOC mandate – guidance from IODP-MI BoG**

Yoshi Tatsumi reviewed the development of the SPPOC terms of reference and compared the differences between the version recommended by the SPPOC in June 2005 and the version subsequently approved by the IODP-MI board of governors. Humphris asked to clarify the origin of the version approved by the board of governors, as it did not incorporate any of the changes recommended by the SPPOC and in fact appeared similar to a much earlier version. Talwani explained that the current version resulted from the June 2005 board of governors meeting that immediately followed the June 2005 SPPOC meeting. Mayer noted that the latter version no longer included the matter of approving changes to the SAS and thus the SPPOC no longer had the task of approving items recommended by the SPC for the SAS panels. Talwani regarded that as an oversight.

Silver believed that the quandary probably arose in the beginning because the board of governors did not originally agree unanimously on the need for the SPPOC. He described the board of governors as the internationally representative executive authority of the program. Malfait clarified that the board of governors consists of representatives of the organizations that formed the IODP-MI, whereas the SPPOC represents the scientific community and the national members of the program. Tamaki asked who would evaluate the IODP-MI. Talwani responded that the board of governors would do it. He said that although he initially requested that the SPPOC review the IODP-MI on an annual basis, the board of governors did not accept the idea. Tatsumi stated that the committee must decide whether to recommend again that it should stay involved in those issues.

Humphris asserted that the SPPOC should approve SAS changes, review how the IODP-MI responds to the needs of the science community, and have a role in interacting with other scientific programs, but it should stay removed from scientific outreach and promoting new program members. Mayer cautioned against taking on responsibilities that the committee could not fulfill. Tokuyama cited the difficulty of separating a review from scientific and implementation standpoints. Talwani appreciated the philosophical approach but would prefer to see the SPPOC interact more with ongoing operations instead of evaluating them. He felt frustrated thus far about the lack of SPPOC commitment in practical terms for reviewing IODP-MI operations. Tamaki noted that he had proposed twice to visit the IODP-MI during his tenure as SPPOC chair but could not agree on convenient dates with the president. Kudrass thought that such reviews could occur every three years instead of annually. Miller suggested that the SPPOC could assist the IODP-MI with intellectual input, perhaps through assigning a liaison to each of the IODP-MI task forces. Humphris proposed identifying a standing SPPOC subcommittee that could rotate on a yearly basis and serve as a direct contact point for the IODP-MI to seek advice on various topics. Talwani wanted to see the SPPOC engaged in more than just approving the program plan. He favored the idea of naming liaisons to the IODP-MI task forces. Allan stated that the IODP-MI contract specifies the need for a review every three years beginning in FY2006, and perhaps that process should involve the SPPOC.

Tatsumi asked Tamaki and Humphris to join him in drafting a recommendation. Miller recognized those three as the equivalent of an executive committee comprised of the chair, the vice chair, and the former chair. Talwani suggested that the SPPOC could form subcommittees of two or three persons for specific tasks and the IODP-MI could provide staff assistance. Tatsumi asked if the committee wanted to continue the discussion in an executive session after lunch. The committee agreed to meet in executive session from 13:30 to 14:00.

**SPPOC Motion 0601-5:** The SPPOC decides to convene in an executive session to discuss its terms of reference and focus.

*Silver moved, Humphris seconded; 15 in favor, 1 non-voting (Berné), 2 absent (Pisias McKenzie).*

Humphris presented a revised version of the SPPOC terms of reference on Wednesday morning. She noted that the mandate now included approval of SAS changes but deleted review of the IODP-MI, scientific outreach, and attracting new program members, plus it included a conflict-of-interest clause and changed the term of SPPOC members from two to three years. Malfait advised that the terms of reference should identify the SPPOC as the executive authority of the SAS, as defined in the IODP memoranda. Talwani suggested deleting the reference to managerial and operational responsibilities. Becker noted that the SAS had previously removed oversight for publications from the STP mandate on the understanding that the SPPOC would do it. Talwani remarked that the SPPOC would still have oversight of the whole program and, hence, publications. Tatsumi sought approval of the revised SPPOC terms of reference.

**SPPOC Motion 0601-6:** The SPPOC recommends modifying its terms of reference as discussed at this January 2006 SPPOC meeting and submits a revised version to the IODP-MI board of governors for approval (see Appendix A).

*Humphris moved, Rea seconded; 16 in favor, 1 non-voting (Berné), 1 absent (Pisias).*

## **6.2 Discussion of SPPOC focus**

### **6.2.1. Program assessment**

David Rea reviewed the components of the IODP Initial Science Plan as the basis for comparison with the achievements of the program to date. He noted that all twelve expeditions conducted so far derive from proposals originally submitted to the ODP; nonetheless, they suitably cover each of the three main themes of the IODP Initial Science Plan, though several initiatives remain unaddressed. Rea stated that these circumstances reflect the typical 5-6 year lead time for planning and scheduling expeditions. He also regarded it as premature to assess fully the scientific results of the first twelve IODP expeditions because much of the post-cruise work remains ahead.

Humphris asked if the subcommittee would assess proposal pressure with regard to the initiatives that have not seen much activity yet. Rea certainly expected to do so, but he noted that the mere existence of a proposal did not necessarily equate with having a good, viable proposal for scheduling. Tatsumi asked Rea to come forth later under Agendum 11 with potential candidates for staffing the subcommittee.

### **6.2.2. IODP-MI suggestions for SPPOC foci**

Manik Talwani indicated that he had nothing further to add beyond the points already discussed under Agendum 6.1.

## **7. Mission concept**

### **7.1. Report from the “small group”**

Yoshi Tatsumi reported on the discussions of the mission concept by the small group. He referred to the earlier assessment of program achievements under Agendum 6.2 and noted that the program should consider how best to make the fullest use of all of the platforms available to it. Tatsumi reviewed the definition, goals, and framework of the mission concept as originally identified in the management forum report, and he cited the need to prepare contingency plans for the NanTroSEIZE project. Tatsumi summarized the review history of the mission concept by the community programs and the SAS, identified several generic types of missions, and listed several general characteristics of a mission. He then outlined a proposed process for developing a successful mission and presented a brief set of criteria for preparing and reviewing mission proposals. Tatsumi also presented an ideal timeline for planning and implementing the first mission expedition by 2011.

Fukao asked when the IODP-MI would get involved in the mission process. Tatsumi said only after the SPC formally designates a project as a mission. G. Kimura noted that the best timeline for the first mission offered no chance to provide a timely contingency plan for the NanTroSEIZE project. Tokuyama asked if the SPPOC could submit mission proposals. Becker noted that the suggestion that the SPPOC serve as an external review panel for missions would negate the chance of SPPOC members submitting mission proposals. Talwani doubted that the board of governors would accept the SPPOC as an external review group. Humphris inquired whether a mission would require a set of drilling proposals to reflect all drilling projects outlined in the mission proposal. Tatsumi envisioned having a comprehensive set of drilling proposals to achieve the goals of a mission proposal. Mayer noted the possibility of gathering a set of existing proposals into a mission. Miller observed that a complex drilling project (CDP) by definition would constitute a mission but not every mission would constitute a CDP, and he cited the NanTroSEIZE project as evidence that the program had already started doing missions. McKenzie referred to the goal of attracting new communities to the program and said that she did not see that happening in the current system.

### **7.2. Implications for the Science Advisory Structure**

Keir Becker presented the SPC consensus views on the mission concept (see SPC Consensus 0510-26). He explained that the IODP-MI president and the chair of the board of governors had clarified that the program could conduct relatively few missions because of limited resources, and they expected missions to undergo a very rigorous review process.

Silver agreed that missions would require significant program support to develop and implement. Scholl did not see any concerns in the SPC statement that missions and other proposals would not receive equivalent levels of nurturing. Humphris asserted that the current terms of reference for PPGs embody essentially the same mission concept except for the involvement of the IODP-MI. She could not see a real distinction between a PPG and a mission planning team and wondered if the program truly needed both types of group. Becker still envisioned a need to have PPGs for other planning aspects if only one or two mission teams would exist at any one time. Bickle questioned the whole point of developing the mission concept if the program could never undertake more than a couple of missions.

Bohlen recalled that the management forum had focused on the question of what makes NASA missions so successful, particularly when combined with public relations and outreach efforts. He said they concluded that a more integrated effort with earlier involvement of the IOs could help the program to overcome technical problems and make more effective and efficient use of its resources. Talwani added that the NASA mission to the moon comprised a

top-down objective, and NASA got busy and put together the technical end engineering teams and received proposals from the community for scientific experiments. Bickle observed that the proposed mission concept attempted to bring together the very distinct and separate goals of publicity or outreach, organizing complex missions, and reaching out to other communities. He cautioned that none of those three objectives necessarily required a large-scale mission process, and he preferred formulating clear plans for each one instead of just rolling them all together into one complicated structure. Suyehiro responded that complex, costly, and lengthy projects such as NanTroSEIZE required a different and more integrated approach than followed in the past.

### **7.3. Implementation of mission concept**

Manik Talwani presented several ideas on how to implement the mission concept. He suggested creating a one- or two-page summary outlining the background, formation, nurturing, and evaluation of missions. He also recommended emphasizing that the composition and leadership of mission teams would come from the proponents and not the IODP-MI, the national programs, or the SAS. Talwani envisioned the mission teams as scientifically and technically strong groups that would provide the element of nurturing usually associated with the SAS, whereas the SAS would review the mission-team efforts annually, with a very stringent final review before sending a mission to the OTF, and all reviews would involve a true external component. He summarized that the nurturing of missions would thus differ from that of unsolicited proposals, reflecting the two different modes of submitting proposals.

Kudrass expressed concern that the current portrayal of missions would diminish the perceived importance of unsolicited proposals. He still preferred the CDP approach but wanted to find a way to expedite the process. Mével viewed the mission concept as too complicated and wondered, for example, how to describe to proponents the difference between a regular proposal and a mission proposition, especially considering the difficulty already of explaining how to write good proposals. She suggested letting the SAS identify missions from among the regular proposals submitted in the usual way. Becker regarded that idea as a satisfactory way to proceed. Larsen did not see a component for soliciting proposals in the diagram outlining the mission procedure. Mayer noted that the proposed definition of a mission as originating from the community implied that it would remain unsolicited. McKenzie pictured the mission concept very differently from a preliminary proposal. She cited the deep-biosphere genome as a possible example of a mission and recommended letting workshops determine the mission themes. Bickle questioned the entire need to invent a cumbersome and complex structure just to coordinate thematic missions within the program. Tsujii favored the mission concept as a way to incorporate other communities that lack familiarity with IODP procedures. Miller characterized the mission concept as basically just a mechanism for gathering the community to address specific themes. Mével wanted to formalize the process in a way that everyone could easily understand, and she suggested that the setting of workshop topics would represent a way to solicit proposals.

### **8. Long-range planning – IODP workshops**

Yoshi Tatsumi reviewed the previous SPPOC efforts in long-range planning and cited the directions given by the IODP-MI board of governors. He listed the seven scientific workshop themes identified at the June 2005 SPPOC meeting and explained that the committee must confirm the remaining three of the four workshops planned for FY2006, select the chairs or co-chairs of those workshops, and request workshop proposals for FY2007. Tatsumi hoped to reach consensus first on approving the workshops and return the next day to finalize the specific charges and the recommended steering committees.

Talwani advised that all workshops should try to follow the spirit of proportional participation for IODP members and should have one Japanese and one U.S. co-chair. Humphris preferred letting the steering committees nominate their own co-chairs. Mével questioned whether the chairs absolutely must come from only Japan and the U.S. Talwani responded that the lead agencies recommended adhering to the proportions of program membership for the workshop participants. He added that the board of governors asked for co-chair nominations as soon as possible and preferably by this meeting. Miller suggested having at least one European co-chair among the four workshops. Bickle noted that the co-sponsorship arrangements also complicated matters in terms of selecting the leaders and the participants. Silver suggested that the SPPOC should name at least one watchdog or liaison for each workshop, not necessarily to attend the workshops but merely to communicate with the steering committee chairs.

**Deep biosphere.** Ken Miller described the proposed workshop on exploring the deep biosphere planned for early fall 2006, possibly in Vancouver, Canada, and supported jointly by the IODP-MI and JOI-USSSP. He stated the intent of engaging new communities among the broad field of microbiology and listed the steering committee members already approved by the SPPOC through an e-mail vote. Miller noted that this workshop developed without a proposal, and the steering committee thus would have to determine the objectives. He outlined two possible scenarios for the workshop and wondered what the SPPOC should request as a deliverable and whether they wanted to provide more guidance on the objectives of this or any of the other workshops. Miller later presented a draft charge for the microbiology workshop steering committee.

Humphris suggested advising the steering committee that the deep biosphere could represent a potential topic for a mission. Mayer inferred that someone then would have to attend the workshop and present the mission concept. Rea recommended taking the same approach for all workshops. The SPPOC suggested several changes to the wording of the charge, agreed on seven candidates for the steering committee, including the preferred co-chairs, and named McKenzie as a liaison.

**Fault-zone drilling.** Gaku Kimura described the workshop on fault-zone drilling planned for late May 2006 in Miyazaki, Japan, and sponsored jointly by the IODP and the ICDP. He stated the objective of gathering active scientists and engineers from all fault-zone drilling projects for an open and detailed exchange of results and ideas. Kimura noted that the workshop would include a field trip to an exposed plate-boundary thrust fault. He listed five nominees for the steering committee, recommended a chair, and cited the total budget of \$150,000. Kimura later presented a draft charge for the fault-zone workshop and volunteered to serve on the steering committee since he would presently rotate off the SPPOC. He also nominated Scholl as a liaison from the SPPOC.

Talwani added that the steering committee would open the workshop on the first day to a larger group of scientists in Japan. Larsen expressed concern that the draft charge did not reflect the ICDP aspect, and he referred to the mission aspect as somewhat misleading given that the IODP had already scheduled the NanTroSEIZE project. He also wondered about the plan for deliverables, particularly in terms of observatory science. Mayer agreed that the proposal did not really specify how the workshop would address the development of drilling plans. G. Kimura concluded that the steering committee should deliver a report. Talwani noted the initial objective of learning from previous experience in fault-zone drilling, and he encouraged the SPPOC to specify a uniform set of deliverables for all workshops. McKenzie suggested emphasizing the riser drilling ship in the charge. The committee modified the

charge accordingly and agreed on five candidates for the steering committee, including the preferred chair, and named Scholl as a liaison.

***Continental breakup and sedimentary basin formation.*** Hans Christian Larsen described the proposed workshop on continental breakup and sedimentary basin formation, planned for late summer or early fall 2006 in Europe. He outlined the reasons for convening such a workshop, emphasizing the low proposal pressure on this topic and the unspecified potential for industry collaboration. Larsen identified several points that the workshop should address, listed eight nominees for the steering committee, and cited the total budget of \$75,000. He advised limiting the steering committee to five or six members and questioned if it would need to meet for planning purposes, given its relatively small size and budget. Larsen later presented the draft charge for the workshop on continental breakup and sedimentary basin formation.

Tsujii noted that this workshop topic did not appear on the list suggested by the SPPOC in June 2005. Silver responded that continental breakup represents one aspect of continent-ocean transects. Talwani noted that this title appears in the annual program plan that the SPPOC already approved, but the IODP-MI would welcome further input since only one person prepared the proposal in a short time. Berné asked if the workshop would consider other geographic areas besides the two mentioned in the proposal. Larsen explained that the proposal cited those two areas as examples and did not intend to exclude other areas. Fox suggested collaborating with the InterMARGINS initiative since it addresses the same objectives. Larsen believed that the workshop proposal included an intellectual link to that program, but the short timeframe for planning might inhibit closer cooperation. Humphris proposed reducing the steering committee to five to seven members and including an industry representative to promote the involvement of industry participants. Kudrass suggested asking the IIS PPG to suggest a candidate. Silver did not regard those two themes as necessarily related. The SPPOC suggested several changes to the wording of the charge, agreed on the limited size of the steering committee, identified the preferred co-chairs, and named Tamaki as a watchdog.

***Mission to the Moho.*** Yoshiyuki Tatsumi described the proposed workshop on the formation and evolution of oceanic lithosphere, or a mission to the Moho, planned for early September 2006 in Portland, Oregon, U.S.A. and co-sponsored by the IODP-MI, the USSSP, InteRidge, and Ridge2000. He explained the rationale of guiding the Mohole initiative in the IODP Initial Science Plan, including multi-disciplinary approaches, and enhancing collaboration with other programs. Tatsumi identified the workshop components in terms of the scientific objectives and operational strategies related to deep, riser drilling. He listed the nominees for the steering committee and its co-chairs and cited the total budget of \$135,000. Humphris later presented a draft charge for the Moho workshop.

Tamaki preferred the title of Crustal Road to the Mohole as stated in the agenda. McKenzie suggested just Mission Moho. Kudrass recommended including engineers on the steering committee, and McKenzie recommended adding a microbiologist. The SPPOC suggested several changes to the wording of the charge, recommended limiting the steering committee to five to seven persons, identified the preferred co-chairs, and named Humphris as a liaison. The committee also discussed the nature of the publishable workshop report. Larsen noted the possibility of publishing the workshop reports in a special issue of *Scientific Drilling*.



**SPPOC Consensus 0601-7:** The SPPOC approves the convening of four long-range planning workshops in FY2006 on the topics of the deep biosphere, fault-zone drilling, continental breakup and sedimentary basin formation, and a mission to the Moho. In addition, the SPPOC recommends a specific charge to the participants and steering committee of each of these workshops (see Appendix B for the four workshop charges).

Tatsumi turned to the topic of identifying other potential workshops for FY2007 and said that the SPPOC must keep moving forward with long-range planning. Scholl wondered what step the committee could take next to make sure these workshops happen. Talwani replied that the board of governors had provided a recipe for the SPPOC to suggest titles, name steering committees, and draft mandates. He noted, however, that the lead agencies had not guaranteed further funding for workshops beyond FY2006, and he advised the SPPOC to deliver a well-ordered plan for including in the FY2007 program plan. Mayer advocated devising a strategy for the planning of workshops instead of taking a haphazard approach. Silver wanted to encourage the community to submit workshop proposals. Bohlen viewed workshops as a good opportunity to build relations with other groups and disciplines.

Allan noted that it takes time to develop workshops, especially to coordinate with other programs and involve other scientific disciplines. Malfait advised looking for ways to combine funds with other programs. Several committee members favored the idea of issuing a request for workshop proposals. Silver preferred having funds committed before issuing such a request, and he thought it might make more sense just to choose the topics and nominate the steering committees. Humphris suggested considering no more than one or two workshops for FY2007. Talwani explained that the IODP-MI needed to know the workshop plan by no later than May 2006 to include it in the FY2007 program plan. He suggested aiming for two workshops and urged the committee to decide at this meeting how and when it would choose those workshops.

Rea questioned the need for a paleoceanography workshop given that more than half of the existing proposals address that topic. Bohlen believed that the number of proposals should not necessarily govern whether to hold a workshop. Bickle wondered how the topic of continent-ocean transects differed from continental breakup. Miller recommended collaborating with the ICDP on such a workshop. Scholl cited the geohazards workshop recommended by the SSEP as an obvious choice, with a good head start on planning already in hand. Mayer proposed that the IODP should try to attach to and build on the already planned European workshop on geohazards instead of duplicating those efforts. Tatsumi asked about the size of the European workshop. Mével answered that it comprised part of the Magellan workshop series that normally supports about 30-40 participants. Silver recognized the importance of staying aware of other efforts, but he believed that a single focused workshop could not fully address such a broad topic as geohazards. Miller suggested two separate geohazards topics of earthquakes and volcanoes or landslides and tsunamis. Silver thought that those topics actually all related to each other. Humphris regarded geohazards as the highest priority and the best opportunity to entrain new communities. Tatsumi agreed that geohazards represented a very viable workshop topic for FY2007. He asked Mayer to draft a recommendation and Miller to draft an ad for *EOS*.

On Wednesday afternoon, Mayer presented a draft recommendation and Miller presented a draft ad for *EOS*. Larsen suggested deleting the reference to underrepresented proposals from the ad. Humphris agreed and added that a workshop could also involve pulling together existing proposals. Silver inquired about excluding the geohazards workshop. Miller noted that the committee already had a geohazards workshop proposal in hand.

**SPPOC Consensus 0601-8:** The SPPOC strongly endorses the Science Steering and Evaluation Panel (SSEP) recommendation for organizing an IODP workshop on geohazards in FY2007.

**SPPOC Consensus 0601-9:** The SPPOC recommends that the IODP-MI place an advertisement in *EOS* requesting community input for potential IODP workshops (see Appendix C for the recommended ad). The SPPOC long-range planning subcommittee will review the responses to this ad in consultation with the IODP-MI and distribute recommendations for potential FY2007 and FY2008 workshops to the full SPPOC for approval by e-mail vote.

**Wednesday**

**18 January**

**08:30-17:30**

### **9. Mission concept – SPPOC discussion and actions**

Yoshiyuki Tatsumi presented an outline of how to activate the mission concept. He recommended first defining what constitutes a mission and then letting the SPPOC *ad hoc* working group consider further how to implement the mission concept, taking input from the small group, this SPPOC meeting, and the next SPC meeting and delivering a report for final approval at the June 2006 SPPOC meeting. Tatsumi cited several merits of the plan but noted that the first mission would not take place until 2011 at the earliest.

G. Kimura stressed the importance of the mission concept for supporting riser drilling. Ito added that CDEX had already expressed concern about the need for contingency plans for riser drilling and would prefer to have at least three or four proposals available for planning purposes. Tatsumi observed that the lengthy timeline for implementing the first mission precluded the possibility of using missions to develop such a contingency plan any time soon. Humphris noted that another riser drilling proposal (595-Full3 Indus Fan and Murray Ridge) already resides with the OTF and perhaps the time had come to establish a scoping group for that proposal. Malfait indicated that the program could conduct mission drilling much earlier by incorporating existing proposals into a mission. Humphris proposed that the SPPOC long-range planning group could speed up the process by identifying the first two missions and asking the community to submit proposals. Kudrass commented that the need to acquire 3-D seismic survey data would still control the pace.

Talwani recalled the original goal of wanting to shorten the planning timeline, whereas this plan would lengthen it. He predicted that the board of governors would feel very disappointed not to receive a final implementation plan by June 2006. Tatsumi responded that it simply takes more time to evaluate the mission concept properly. Humphris emphasized the need to develop a common understanding of what defines a mission before finalizing the plan of how to implement the mission concept. Tatsumi presented a draft definition of a mission. Evans noted that the definition excluded the possibility of designating a single project as a mission. He also suggested using the word program only in reference to the IODP itself. Becker suggested substituting the word strategy for programs, and the committee agreed.

**SPPOC Consensus 0601-10:** The SPPOC proposes defining a mission as an intellectually integrated and coordinated drilling strategy originating from the scientific community that (a) addresses a significant aspect of an IODP Initial Science Plan theme on a global basis over an extended period of the program, and (b) merits urgent promotion to achieve overall IODP goals.

**SPPOC Consensus 0601-11:** The SPPOC establishes an *ad hoc* working group to consider further how to implement the mission concept. The working group will consider input from the “small group”, the SPPOC, and the Science Planning Committee (SPC) and will deliver a final report for approval at the June 2006 SPPOC meeting. Members of the group will include Humphris as chair, Kudrass, Tsujii, and SPC chair Becker.

*[Note: In the weeks following the SPPOC meeting, the SPPOC working group drafted a plan for implementing the mission concept and presented that plan at the March 2006 SPC meeting. With feedback from the SPC, the working group subsequently revised the draft mission implementation plan and presented it to the entire SPPOC for approval by e-mail voting in late March 2006.]*

**SPPOC Motion 0603-1:** The SPPOC accepts the draft mission implementation plan as produced and revised by its own *ad hoc* working group.

*Humphris moved, Tatsumi seconded; 17 in favor, 1 non-voting (McKenzie).*

Becker suggested that the SPPOC could formally advise the SPC to initiate the operational planning for riser drilling projects at an earlier stage. He explained that the SPC previously asked the OTF to establish scoping groups for two riser drilling proposals before ranking and forwarding them to the OTF, but the OTF decided not to begin those efforts yet. He added that the SPC has also reviewed four other proposals with a component of riser drilling, and the OTF might have changed its outlook now. Tatsumi asked if CDEX would welcome additional SAS pressure to advance the planning for riser drilling proposals. Ito confirmed that CDEX would welcome such additional efforts. Humphris suggested that perhaps the OTF itself could do an initial review of the technical requirements and timeline before setting up a scoping group. Mayer worried about starting the scoping efforts for projects that might not have enough site-survey data available. Becker responded that the OTF would have to assess that factor. Evans worried about establishing different criteria for projects with riser drilling compared to those without it. Humphris said that she could accept a slightly different approach for riser drilling projects because of the greater complexity and longer timescale for planning. Allan expressed alarm about the possible inability of the program to identify enough scientific targets to support riser drilling operations. Larsen related the issue also to the justification behind the mission concept. Bickle presumed that the SPPOC only needed to consider the general principle and let the SPC consider all of the specific variables. Talwani supposed that the SPC and the OTF could solve this problem together without further input from the SPPOC. Becker answered that it would help the SPC to receive a formal statement from the SPPOC highlighting the problem. Tatsumi asked Fukao and Silver to draft a recommendation directed toward the SPC, with assistance from Becker.

The committee resumed discussing the mission concept on Wednesday afternoon. Silver left the meeting at 14:30. Fukao presented a draft recommendation on advance planning for riser drilling projects. Evans preferred seeing a more general statement that would also apply to complex operations for MSP or non-riser drilling projects. Berné agreed that MSP projects could benefit from more advanced operational planning. The committee struggled with the two separate issues of not having enough proposals and the need to plan further in advance. Tatsumi asked Fukao and Becker to revise the recommendation. Becker did not believe the committee had reached a consensus opinion. Humphris wanted to acknowledge the concerns in some way. Bickle suggested removing the reference to an insufficient number of proposals, and the committee reached a consensus.

**SPPOC Consensus 0601-12:** Given the long lead-times required for riser drilling and other complicated projects, the SPPOC urges the Science Planning Committee (SPC) and the IODP-MI Operations Task Force (OTF) to assess the level of advance planning required for those types of projects beginning at the time the Science Steering and Evaluation Panel (SSEP) forwards any such proposals to the SPC.

### **10. FY2007 science plan approval**

G. Kimura, Rea, and Miller left the room because of conflicts of interest (see Agendum 1.6). Susan Humphris presented a draft recommendation on approving the FY2007 science plan. Mével wondered about including a provision for an additional MSP expedition. The committee suggested several other minor changes before accepting the recommendation.

**SPPOC Motion 0601-13:** The SPPOC approves the FY2007 operations schedule of the *Chikyu*, the U.S. scientific ocean drilling vessel (SODV), and a mission specific platform (MSP), should the New Jersey margin drilling not occur in FY2006 as previously approved. The SPPOC also provisionally approves the proposed FY2008 schedules for the *Chikyu* and the SODV.

The FY2007-2008 operations schedule for the *Chikyu* will begin in September 2007 with NanTroSEIZE Stage 1 non-riser drilling and continue in 2008 with further NanTroSEIZE Stage 1 non-riser drilling and then NanTroSEIZE Stage 2 riser drilling after a period of maintenance and further testing.

The FY2007-2008 operations schedule for the SODV will begin in August 2007 and proceed as follows:

- Equatorial Pacific Paleogene Transect (Proposal 626-Full2)
- NanTroSEIZE Stage 1 (Proposals 603A-Full2, 603B-Full2, 603C-Full)
- NanTroSEIZE Stage 1 continued (Proposals 603A-Full2, 603B-Full2, 603C-Full)
- An expedition to be selected after the March 2006 SPC rankings
- Juan de Fuca Flank Hydrogeology III (Proposal 545-Full3)

The SPPOC commends the Science Planning Committee (SPC) and the IODP-MI Operations Task Force (OTF) for their thoroughness in considering all scheduling options and building some flexibility into the first year of dual-vessel operations, as well as for using the current hiatus in drilling to extend the scheduling beyond the next fiscal year, hence allowing for longer lead-times and better planning of IODP expeditions. [Note: see SPC Motions 0510-21 and 0510-23.]

*Humphris moved, Silver seconded; 13 in favor, 1 non-voting (Berné), 4 absent (Kimura, Miller, Pias, Rea)*

### **11. Program assessment implementation**

David Rea stated that the IODP after the first two years will have addressed or begun to address at least thirteen of the initiatives in the Initial Science Plan. He thought that seemed quite satisfactory, and he did not see any sense in organizing synthesis workshops until later, after more results become available. Rea recommended the SPC vice chair, Jim Mori, for the assessment subcommittee.

Other SPPOC members nominated several individuals for the external member of the assessment subcommittee. Tatsumi asked if the committee should prioritize the nominees. Rea doubted that the committee knew enough about the candidates. Bickle suggested prioritizing the nominees in the order they were mentioned, and the committee agreed.

## 12. Any other business

### 12.1 SPPOC executive committee?

Yoshi Tatsumi outlined the aim of deciding whether to create an executive committee of the SPPOC. Mayer sensed strong support for the idea among the committee. Tatsumi proposed that the chair and vice chair could comprise the executive committee. Humphris preferred a slightly broader membership. McKenzie proposed adding the past chair. Talwani suggested including the chairs of the other SPPOC subcommittees. Miller favored having an executive committee of three or four members. Kudrass cited four as a maximum. Tsujii worried that the executive committee could subsume the role of the SPPOC. Silver identified the purpose of maintaining continuity between meetings and doubted that the executive committee could take on the full responsibility for long-range planning and other SPPOC tasks. Tokuyama suggested creating an office to provide administrative support. Larsen noted that the IODP-MI science coordinators already provide such support now to the SPPOC and SPC chairs. Tamaki believed that the responsibility for making decisions should always rest with the chair and the vice chair, and not the executive committee. Mayer supported the idea of creating an executive committee composed of the SPPOC chair, vice chair, and subcommittee chairs. Silver also supported the idea. Tamaki recalled that the SPPOC had formed a subcommittee for long-range planning but only a working group for program evaluation. He proposed changing the status of the working group to a standing subcommittee to reflect better the long-range nature of the task. Rea agreed that program evaluation requires a continuing effort. Tatsumi concluded that the committee now recognized program evaluation as an ongoing task.

**SPPOC Consensus 0601-14:** The SPPOC reclassifies its program-assessment working group (see SPPOC Consensus 0506-12) as a standing subcommittee. The subcommittee will consist of one SPPOC member (currently David Rea as chair), one Science Planning Committee (SPC) member, one external member, and a liaison from the IODP-MI. *[Note: SPC vice chair Jim Mori and Gretchen Früh-Green later agreed to serve on the program-assessment subcommittee.]*

Tokuyama wondered about defining a mandate or list of tasks for the executive committee. Tatsumi thought it unnecessary to define the role of the group other than just as a means for communicating with the IODP-MI between meetings. Humphris agreed that such a commonly used mechanism did not need a written mandate. Miller noted that the IODP-MI board of governors has an executive committee. Mével added that the ECORD council also has such a committee and it works very effectively. Scholl suggested allowing the executive committee to make decisions on behalf of the full committee in the event of a need for rapid advice. Tatsumi summarized that the executive committee did not need a mandate and would exist to promote good communications with each other and with the IODP-MI on a regular basis between meetings. The SPPOC decided to name its executive committee the *kanji kai*.

Tatsumi stated that the long-range planning subcommittee needed two new replacement members. McKenzie nominated Berné for maximum continuity. Humphris likewise nominated Scholl. Both accepted the appointment. Tatsumi noted that since he serves as both SPPOC vice chair and chair of the long-range planning subcommittee, the *kanji kai* should include another member from the long-range planning subcommittee. Berné nominated Scholl, who accepted the appointment.

**SPPOC Consensus 0601-15:** The SPPOC establishes an executive committee, or *kanji kai*, composed of the SPPOC chair, vice-chair, and one representative each, normally the chairs, from the long-range planning and program-assessment subcommittees. The *kanji kai* will serve to promote good communications with the IODP-MI between regular SPPOC meetings. The initial membership consists of Pisias, Tatsumi, Rea, and Scholl.

### **13. SPPOC actions – review motions and consensus statements**

Yoshi Tatsumi promised to review the various motions and consensus statements with the science coordinators and have a draft executive summary distributed as soon as possible after the meeting.

### **14. Future meetings**

Yoshi Tatsumi confirmed the plan to hold the next SPPOC meeting on 11-12 July 2006 in Portland, Oregon, hosted by Pisias. Tamaki and Kudrass indicated that they could not attend on those dates.

Tatsumi proposed holding the next meeting beyond that on 22-23 January 2007 in Japan. Tokuyama volunteered to host the meeting in Tokyo but noted his plans for a cruise starting in the first of February. Miller said that he might have a conflict with a post-cruise meeting on those dates.

Mayer, G. Kimura, and Fukao identified this as their last meeting. Humphris, Rea, and Tamaki indicated that they would rotate off the committee after one more meeting.

### **15. Thanks to the hosts**

Yoshi Tatsumi offered special thanks to McKenzie and her assistants for an excellent job in hosting this meeting. He then adjourned the meeting at 15:20.

**SPPOC Consensus 0601-16:** The SPPOC thanks Judy McKenzie, Helmut Weissert, and Teresa Bingham Mueller for their dedicated efforts in planning and hosting this successful meeting and providing us with such comfortable and convenient accommodations and facilities. We thoroughly enjoyed the busy calendar of social events, including the late afternoon stroll through the streets of Zurich, the *Apero* with the delightful *Stadtpräsident* in the Baroque Room of the Rathaus Winterthur, the magnificent art collection of the Museum Oskar Reinhart, and the hearty four-cheese fondue on a cold winter night.

## **Appendix A.**

### **IODP Science Advisory Structure Terms of Reference**

(approved 17 June 2005 by IODP-MI BoG; revised 18 January 2006 by SPPOC)

#### **Science Planning and Policy Oversight Committee (SPPOC)**

**1. Mandate.** The SPPOC shall be a committee created by the Integrated Ocean Drilling Program Management International (IODP-MI) in accordance with the terms and conditions of the IODP-MI by-laws. This committee shall be the executive authority of the IODP Scientific Advisory Structure (SAS) as identified in the IODP memoranda, and it shall formulate scientific and policy recommendations with respect to the IODP. As the highest-level committee, it shall recommend and ultimately approve changes in the SAS and related terms of references. It shall conduct IODP long-range planning, as well as short- and long-term evaluation and assessment of the program as to its accomplishments and evolution as compared to the scientific goals and objectives, including required engineering developments, of the IODP Science Plan. The SPPOC shall work with the IODP-MI to foster and promote interactions and linkages with other international and national scientific programs. The IODP-MI Sapporo Office shall support the SPPOC's activity.

**2. Science Advisory Structure.** The SPPOC may establish committees and working groups for cognizance of certain components of the IODP. Areas of cognizance and the terms of reference for each committee shall be defined by the SPPOC. In particular, a Science Planning Committee (SPC) shall be established. The SPPOC shall determine the chair and vice-chair of the SPC based on IODP member nominations. The IODP-MI Board of Governors (IODP-MI BoG) shall approve the SPC chair nomination.

**3. Annual IODP Program Plan and Budget.** The SPPOC shall review and approve the annual IODP program plan and budget prior to forwarding it to the IODP-MI BoG for corporate approval and contractual submission to the lead agencies of the IODP.

**4. Membership.** The members of the SPPOC shall be representatives from oceanographic and marine research institutions or other organizations that have a major interest in the study of the sea floor. Members shall be selected based on recommendations from national and consortia committees from member nations and consortia, and have a term of three years. In addition, the IODP-MI BoG shall appoint two of its members to the SPPOC, one from Japan and another from the United States. In the event another lead agency joins the IODP, the IODP-MI BoG shall appoint three members to the SPPOC. The IODP-MI BoG shall approve the membership of the SPPOC. The IODP-MI BoG on the recommendation of the SPPOC or in the event of a country or consortium ceasing to have a valid memorandum in existence may cancel membership of any member.

**5. Decisions.** The SPPOC shall reach all its decisions by consensus or the affirmative vote of at least two-thirds of all members present and eligible to vote. A quorum shall constitute two-thirds of the committee. If a member of the committee is absent from a duly called meeting of the committee, an alternate may be designated with full authority to act for him or her in his or her absence.

**6. Chair and Vice Chair.** The chair and vice chair of the SPPOC shall rotate initially between Japan and the United States, each with a term of office of two years. The IODP-MI BoG based on IODP member nominations shall determine the chair and vice chair of the SPPOC.

**7. Minutes.** The committee, and all subcommittees thereto, shall keep written records of their proceedings. Conflicts of interest shall be declared at each meeting, and treatment thereof shall be recorded in the meeting minutes.

**8. Indemnification.** Members of this committee, and members of subcommittees duly appointed thereby, while acting within the terms of reference, shall be indemnified, and held harmless by the corporation from and against any and all liabilities, damages and demands, losses, costs and expenses arising from acts or omission related to performance as committee members.

**9. Ratification.** These terms of reference, upon ratification by the IODP-MI BoG, shall supersede all previous terms of reference.



## Appendix B.

### IODP Workshop on Exploring the Deep Biosphere

#### *A charge to the workshop steering committee from the IODP Science Planning and Policy Oversight Committee (SPPOC)*

The IODP Initial Science Plan highlights the deep biosphere as one of eight high-priority initiatives for scientific ocean drilling. Despite the success of initial drilling efforts in this regard (e.g., ODP Leg 201, IODP Expedition 307), major areas of microbiology, such as genomics and microbial ecology, do not factor strongly in existing IODP proposals. The SPPOC thus has concerns that microbiologists do not widely recognize the new opportunities for investigating the deep biosphere using the full range of IODP drilling capabilities.

The SPPOC charges the workshop participants with defining the key scientific objectives of investigating the deep biosphere through drilling, identifying a global, long-term drilling strategy and the technological requirements for addressing those objectives, and providing a conceptual framework for considering the deep biosphere as a potential mission within the IODP. The steering committee must decide how best to structure the workshop and accomplish those goals within the available budget.

**Expected deliverables:** As an outcome of the workshop, the steering committee must deliver at least two publishable documents, including an *EOS* summary article and a longer, comprehensive workshop report that describes the scientific objectives, presents a drilling strategy for addressing those objectives, and identifies the technological and engineering requirements.

**Steering Committee:** The SPPOC recommends creating a steering committee of 5-7 persons to organize and run the meeting. The steering committee should have a chair and include an industry representative. Judy McKenzie will act as liaison from the SPPOC and work with the IODP-MI to finalize the selection of the steering committee and its leadership and determine the format, timing, and location of the workshop. The SPPOC endorses the following list of nominees and suggests that Steve D'Hondt and Fumio Inagaki serve as co-chairs.

Ken Takai	JAMSTEC
Kenji Kato	University of Shizuoka
Fumio Inagaki	MPI-Bremen
Steve D'Hondt	University of Rhode Island
Mitchell Sogin	Marine Biological Laboratory
Patricia Sobecky	Georgia Tech
Bo Barker Jørgensen	MPI-Bremen
Paul Kemp	SUNY Stony Brook

## IODP/ICDP Workshop on Fault Zone Drilling: Developing a Global Perspective

### *A charge to the workshop steering committee from the IODP Science Planning and Policy Oversight Committee (SPPOC)*

The IODP Initial Science Plan highlights the seismogenic zone as one of eight high-priority initiatives for scientific ocean drilling, but relatively few new proposals related to this initiative have so far come forth. The SPPOC thus has concerns that the geoscience community does not widely recognize the new opportunities for investigating fault zones using the full range of IODP drilling capabilities, particularly in deep riser drilling.

The SPPOC charges the workshop participants with defining the key scientific objectives of drilling into fault zones, identifying a global, long-term drilling strategy and the technological requirements for addressing those objectives, and providing a conceptual framework for potentially considering fault-zone drilling as a dedicated mission within the IODP. The steering committee must decide how best to structure the workshop and accomplish those goals within the available budget.

**Expected deliverables:** As an outcome of the workshop, the steering committee must deliver at least two publishable documents, including an *EOS* summary article and a longer, comprehensive workshop report that describes the scientific objectives, presents a drilling strategy for addressing those objectives, and identifies the technological and engineering requirements.

**Steering Committee:** The SPPOC recommends creating a steering committee of 5-7 persons to organize and run the meeting. The steering committee should have a chair and include an industry representative. David Scholl will act as liaison from the SPPOC and work with the IODP-MI to finalize the selection of the steering committee and its leadership and determine the format, timing, and location of the workshop. The SPPOC endorses the following list of nominees and suggests that Harold Tobin serve as chair.

Harold Tobin	New Mexico Tech
Steve Hickman	USGS
Hisao Ito	CDEX, JAMSTEC
Gaku Kimura	University of Tokyo
Jan Behrmann	Freiburg University
To be named	industry expert

## IODP Workshop on Continental Breakup and Sedimentary Basin Formation

### *A charge to the workshop steering committee from the IODP Science Planning and Policy Oversight Committee (SPPOC)*

The IODP Initial Science Plan highlights continental breakup and sedimentary basin formation as one of eight high-priority initiatives for scientific ocean drilling. Previous drilling efforts that concentrated almost exclusively in the North Atlantic Ocean have identified two highly opposed end members of rifted margin formation. Despite the fundamental success of those earlier efforts, relatively few new proposals related to this initiative have so far come forth. The SPPOC thus has concerns that a proper global perspective including young and active rifting margins remains lacking and that the geoscience community does not fully recognize the new opportunities for recovering sedimentary records of rifting history using the full range of IODP drilling capabilities, particularly in deep riser drilling.

The SPPOC charges the workshop participants with defining the key scientific objectives of investigating continental rifting and the initiation of normal seafloor spreading, identifying a global, long-term drilling strategy and the technological requirements for addressing those objectives, and providing a conceptual framework for potentially considering this initiative as a dedicated mission within the IODP. The steering committee must decide how best to structure the workshop and accomplish those goals within the available budget.

**Expected deliverables:** As an outcome of the workshop, the steering committee must deliver at least two publishable documents, including an *EOS* summary article and a longer, comprehensive workshop report that describes the scientific objectives, presents a drilling strategy for addressing those objectives, and identifies the technological and engineering requirements.

**Steering Committee:** The SPPOC recommends creating a steering committee of 5-7 persons to organize and run the meeting. The steering committee should have two co-chairs and include an industry representative. Note that a planning meeting of the full steering committee will severely impact the limited budget. Kensaku Tamaki will act as SPPOC watchdog and work with the IODP-MI to finalize the selection of the steering committee and its leadership and determine the format, timing, and location of the workshop. The SPPOC endorses the following list of nominees and suggests that Dale Sawyer and Mike Coffin serve as co-chairs.

Dale Sawyer	tectonics, modeling	U.S.A.
Neal Driscoll	margins and basin formation	U.S.A.
John Hopper	geophysics, rift tectonics	U.S.A.
Martha Withjack	industry representative	U.S.A.
Tim Reston	modeling, tectonics	ECORD, Germany
Jean-Claude Sibuet	rift tectonics	ECORD, France
Mike Coffin	plume-rifting links, geophysics	Japan
Yuji Orihashi	igneous petrology, rifting	Japan

## IODP Workshop for Mission Moho: Formation and Evolution of the Oceanic Lithosphere

### *A charge to the workshop steering committee from the IODP Science Planning and Policy Oversight Committee (SPPOC)*

The IODP Initial Science Plan highlights the 21st Century Mohole as one of eight high-priority initiatives for scientific ocean drilling. This initiative reflects the enormous potential for improving our understanding of the composition, structure, and evolution of oceanic lithosphere by drilling a complete section through the oceanic crust and into the upper mantle — a long-standing goal since the dawn of ocean drilling. The Mission Moho workshop will outline the scientific framework that will guide IODP's 21st Century Mohole initiative for a decade or more.

The SPPOC charges the workshop participants with defining the key scientific objectives of drilling through the Moho, identifying a global drilling strategy and the technological requirements for addressing those objectives, and providing a conceptual framework for potentially considering this initiative as a dedicated mission within the IODP. The steering committee must decide how best to structure the workshop and accomplish those goals within the available budget.

**Expected deliverables:** As an outcome of the workshop, the steering committee must deliver at least two publishable documents, including an *EOS* summary article and a longer, comprehensive workshop report that describes the scientific objectives, presents a drilling strategy for addressing those objectives, and identifies the technological and engineering requirements.

**Steering Committee:** The SPPOC recommends creating a steering committee of 5-7 persons to organize and run the meeting. The steering committee should have two co-chairs and include representatives with expertise in microbiology and deep crustal drilling. Susan Humphris will act as liaison from the SPPOC and work with the IODP-MI to finalize the selection of the steering committee and its leadership and determine the format, timing, and location of the workshop. The SPPOC endorses the following list of nominees and suggests that David Christie and Kyoko Okino serve as co-chairs.

David Christie	Petrology-volcanic	Oregon State
Donna Blackman	Geophysics, seismology	Scripps Inst. Oceanography
Bob Detrick	Geophysics, seismology	Woods Hole
Kevin Johnson	Petrology-plutonic	Univ. Hawaii
Henry Dick	Petrology-plutonic	Woods Hole
Jay Miller	Petrology, technology	IODP-TAMU
Jeff Alt	Alteration	Univ. Michigan
Doug Wilson	Geophysics (pmag)	UC Santa Barbara
Kyoko Okino	Geophysics	ORI, Univ. Tokyo
Shoji Arai	Petrology-ultramafics	Kanazawa University
Yoshi Tatsumi	Petrology, geochemistry	IFREE, JAMSTEC
Natsue Abe	Petrology	IFREE, JAMSTEC
Yasuhiko Ohara	Petrology, tectonics	Ocean Res. Lab., Tokyo
Benoit Ildefonse	Petrology-plutonic	Univ. Montpellier
Catherine Mevel	Petrology-plutonic	Univ. Paris VI
Colin Devey	Petrology-volcanic	IFM-Geomar
Damon Teagle	Alteration	Southampton Oceanography Center

Sang-Mook Lee  
Zhifei Liu

Geophysics

Seoul National Univ.  
Tongji University

## **Appendix C.**

### **Integrated Ocean Drilling Program Call for Workshop Proposals**

The IODP invites short proposals for international workshops to be held in 2007 and possibly 2008. The workshops should address the major scientific themes and initiatives of the IODP Initial Science Plan (available at <http://www.iodp.org/isp/>). The IODP already will support four workshops in 2006 addressing drilling-related issues on the deep biosphere, continental breakup and sedimentary basin formation, drilling to the Moho, and fault-zone drilling and anticipates supporting a workshop on geohazards in 2007. We are particularly interested in additional workshops that would address other topics in the IODP Initial Science Plan or provide innovative integration of current topics and drilling strategies.

Proposals should be limited to four pages of text and must address the following points: overall scientific or technical objectives of the workshop, rationale for drilling as a means of addressing scientific questions, potential workshop participants (individuals or research groups), and a preliminary budget. Proposals should include two-page curriculum vitae of the proponent(s). Deadline for submission is 15 April 2006. Proponents should submit proposals electronically in pdf format to IODP Management International, attention Kelly Kryc <[kkryc@iodp.org](mailto:kkryc@iodp.org)>.